SmarterSig

# IMPROVE
# YOUR BETTING

## Selected Systems and Strategies

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**www.SmarterSig.com** 2008

# INTRODUCTION

In 2005 the monthly SmartSig magazine, which had been in circulation since 1994, came to an end. Over the years a group of successful punters and serious betting researchers had accumulated under the roof of the magazine and the daily exchanges on its email forum. Thankfully the email forum was maintained when the magazine came to an end and after around 18 months of continued betting debate it became clear that the magazine was sorely missed.

An article around the turn of 2007 by Justin Penrose concerning the activities of a sports trader, which was posted up on the forum, was the catalyst to deciding that the monthly magazine should be resurrected. January 2008 saw the first edition appear, fronted by Justin's article and I am pleased to say that the magazine has appeared every month since.

Times have moved on since the 90s and the magazine is now picked up by members from the www.smartersig.com web site in pdf format. The quality and originality of thought however remains as strong as ever.

The betting world has also changed dramatically and for the punter it's now a case of never having had it so good. Keeping up to date with the myriad of opportunities can be overwhelming and the range of skills and expertise needed, can be beyond any individual. The SmarterSig community and magazine enables the individual to tap into a rich and deep knowledge pool. Questions concerning statistical analysis, form reading, staking methods, computer modeling techniques or simply is this a weak favorite in the 2.30 at Bath this afternoon, are all covered by a group of people eager to learn and generous with their knowledge.

2008 has been an excellent first year for SmarterSig and I am sure, as more budding authors come on board, it will continue to thrive. A big thank you however for the ever supportive Dave Renham, Justin Penrose, John Jackson and all the authors who have contributed articles this year.

It was no easy task selecting the content of this book. The chapters hopefully represent a cross section of the monthly magazines and are certainly not intended to represent the best.

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My own punting experiences have convinced me that the company you keep has a profound influence on your chances of being a successful bettor. It is not merely a question of selection techniques, systems or discovering a particular statistic. The mindset of a professional punter does not come easily. Most jobs involve around 20 days work per month of which one could reasonably hope to feel some sense of achievement at the end of most days. Successful punting usually involves a much lower daily feel good factor count, and dealing with this is usually the downfall of punters who cannot quite break out of a loss making existence. At Smartersig.com you will be mixing with people who have found ways of coping with the dreaded losing run and it is this support network, which can be one of its most valuable features.

Whether you are an aspiring professional punter or simply wishing to be a little more professional with your betting, I am confident Smartersig will move you closer to your goal in 2009.

# NEURAL NETWORKS AI RATINGS

Mark Littlewood

The SmarterSig email list contained a flurry of activity recently on the topic of Neural Networks and their application to racing data analysis. I have been meaning to have a dabble with some NN software for a while now and the email discussion resurrected this curiosity. As some of you may know the AI ratings were produced by Stefan Perry as a vehicle for exploring the use of NNs to race data. They are produced each day on the web site using Stef's latest NN definitions. I thought it might be interesting to try and create the ratings myself using a Neural Network package and see how they are fairing as well as tinker around the edges to see if they can be improved. I see the AI ratings as a base upon which other data could be applied as opposed to a finished article in terms of ratings.

First a reminder for those who are new to the AI ratings. A Neural Network is asked to analyse the last 3 form figures and days since last outing for runners in various categories of races.

Typical lines of data might be:-

    2,0,3,4,2
    3,1,4,100,1

Reading from the left, the first line would be for a horse that finished 2nd on its third last run, greater than 4th on its penultimate run and 3rd on its last run. Its days since last appearance was less than or equal to 4 days. In this race the horse finished 2nd.

Days since last run are categorised into blocks. Those running within 4 days are represented by the number 4. Those reappearing after 5 to 10 days are represented by the number 10 and so on up to 100, which represents anything over 100 days.

The second line of data shows a horse that finished 3rd, 1st and 4th in its previous runs and has not run for greater than 100 days but finished 1st in this race.

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The data is organised into the following separate categories for analysis :-

- Turf flat handicaps
- Turf flat non handicaps
- AW flat handicaps
- AW flat non handicaps
- NH handicaps
- NH non handicaps

For the purpose of my investigation I decided to take a look at AW handicaps although the last three form figures are taken from any flat race.

I used Predict NN software by Neuralware, which utilises a Genetic Algorithm as its underlying analysis mechanism. You can pick up a trial version from Neuralware but it has limitations on the number of records it will handle. The email list would be a good place to get some advice on alternative cheap or free packages.

The first thing I did with my data was to train and test predict on the AW data for 2000 to 2007. I then plugged in the data for 2008 and ran the software with the extra data. Predict produces an estimation of the likelihood of the horse winning in terms of a number between 0 and 1. The bigger the number the more likely the horse will win according to the Predict model. Analysing the figures produced for 2008 as ratings for each horse realised the following results.

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**AW Season Jan 1st – Aug 31st 2008**
**Predict NN software AI ratings**

| RatPos | Count | Wins | SR% | PL | ROI% |
|---|---|---|---|---|---|
| 1 | 707 | 158 | 22.35 | -70.36 | -9.95% |
| 2 | 692 | 127 | 18.35 | -45.32 | -6.55% |
| 3 | 682 | 96 | 14.08 | -137.91 | -20.22% |
| 4 | 705 | 87 | 12.34 | -113.06 | -16.04% |
| 5 | 688 | 66 | 9.59 | -148.22 | -21.54% |
| 6 | 652 | 59 | 9.05 | -194.56 | -29.84% |
| 7 | 540 | 34 | 6.30 | -204.67 | -37.90% |
| 8 | 412 | 25 | 6.07 | -176.75 | -42.90% |
| 9 | 276 | 14 | 5.07 | -103 | -37.32% |
| 10 | 186 | 11 | 5.91 | 47 | 25.27% |
| 11 | 123 | 6 | 4.88 | -47 | -38.21% |
| 12 | 39 | 3 | 7.69 | 23 | 58.97% |
| 13 | 28 | 2 | 7.14 | -16.5 | -58.93% |
| 14 | 8 | 0 | 0.00 | -8 | -100% |
| 15 | 2 | 0 | 0.00 | -2 | -100% |

Nothing to get too excited about here with the top two rated producing a loss in the pound of about 8.2p. However I realised afterwards that I had forgotten to categorize the days since last run field. I had left the field as simply the number of days since the horse last appeared.

I corrected the above finding on the next run but first I was interested in comparing this performance with a non NN alternative. I compiled the ratings, this time using impact values for each of the individual combinations of form and interval figures (in blocks now). These set of ratings produced the following

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**AW Season Jan 1st – Aug 31st 2008**
**Ratings based on Impact Values**

| RatPos | Count | Wins | SR% | PL | ROI% |
|--------|-------|------|-------|---------|----------|
| 1 | 699 | 149 | 21.32 | -80.6 | -11.5308 |
| 2 | 686 | 108 | 15.74 | -164.83 | -24.0277 |
| 3 | 685 | 109 | 15.91 | -105.18 | -15.3547 |
| 4 | 702 | 79 | 11.25 | -149.68 | -21.3219 |
| 5 | 665 | 68 | 10.23 | -127.4 | -19.1579 |
| 6 | 639 | 59 | 9.23 | -173.79 | -27.1972 |
| 7 | 539 | 36 | 6.68 | -216.67 | -40.1985 |
| 8 | 423 | 31 | 7.33 | -78.92 | -18.6572 |
| 9 | 269 | 19 | 7.06 | -44.13 | -16.4052 |
| 10 | 204 | 13 | 6.37 | -45.4 | -22.2549 |
| 11 | 119 | 8 | 6.72 | -59 | -49.5798 |
| 12 | 70 | 6 | 8.57 | 9 | 12.85714 |
| 13 | 24 | 3 | 12.50 | 55.25 | 230.2083 |
| 14 | 11 | 0 | 0.00 | -11 | -100 |
| 15 | 5 | 0 | 0.00 | -5 | -100 |

The NN software certainly seems to have done a better job of making sense of the data than was the case with impact values. The IV's produced an 11.53% loss on top rated's and a painful 24% loss on second top rated horses.

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**AW Season Jan 1st – Aug 31st 2008**
**Predict NN software AI ratings Version 2**

| RatPos | Count | Wins | SR% | PL | ROI% |
|---|---|---|---|---|---|
| 1 | 685 | 160 | 23.36 | -51.44 | -7.51% |
| 2 | 684 | 133 | 19.44 | -25.31 | -3.70% |
| 3 | 684 | 95 | 13.89 | -179.75 | -26.28% |
| 4 | 681 | 79 | 11.60 | -139.99 | -20.56% |
| 5 | 660 | 75 | 11.36 | -27.35 | -4.14% |
| 6 | 618 | 52 | 8.41 | -172.13 | -27.85% |
| 7 | 526 | 36 | 6.84 | -192.75 | -36.64% |
| 8 | 425 | 20 | 4.71 | -201.25 | -47.35% |
| 9 | 297 | 17 | 5.72 | -55.38 | -18.65% |
| 10 | 214 | 12 | 5.61 | -36.5 | -17.06% |
| 11 | 137 | 6 | 4.38 | -20 | -14.60% |
| 12 | 80 | 1 | 1.25 | -72.5 | -90.63% |
| 13 | 32 | 2 | 6.25 | -6 | -18.75% |
| 14 | 11 | 0 | 0.00 | -11 | -100% |
| 15 | 6 | 0 | 0.00 | -6 | -100% |

The revised days since last run figures have resulted in some improvement for the top two rated with an approximate loss of only 5.6p in the pound.

Some of the discussion on the email list had centred around how best to present data to a network. Normalising data to produce data in the range of 0 to 1 was cited as being helpful to the NN. Packages like Predict may well do this as a background task but some list members were mindful of how outliers within the data can distort or make it difficult for the NN to distinguish the inner bulk of the data. Mindful of these points but more for the reason that I wanted to see if the data could be richer in content I decided to change the format of the last three form figures. As they stand they do not distinguish between a good 5th and stone last. They also do not differentiate between a 2nd in a 4 runner race and say 2nd in a 20 runner race. I therefore recompiled the data to show the last three form figures as a value between 1 (victory) and 0. The values in between

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represented the relative position in the field and hence 2nd of 4 would score lower than 2nd of 20.

This approach produced the following results:

**AW Season Jan 1st – Aug 31st 2008**
**Predict NN software AI ratings Version 2b**

| RatPos | Count | Wins | SR% | PL | ROI% |
|--------|-------|------|-------|--------|---------|
| 1 | 689 | 164 | 23.80 | -8.65 | -1.26% |
| 2 | 681 | 141 | 20.70 | -8.73 | -1.28% |
| 3 | 684 | 90 | 13.16 | -171.8 | -25.12% |
| 4 | 680 | 81 | 11.91 | -95.74 | -14.08% |
| 5 | 660 | 62 | 9.39 | -206.05 | -31.22% |
| 6 | 618 | 56 | 9.06 | -122.13 | -19.76% |
| 7 | 526 | 34 | 6.46 | -217.5 | -41.35% |
| 8 | 425 | 29 | 6.82 | -61.75 | -14.53% |
| 9 | 297 | 14 | 4.71 | -117 | -39.39% |
| 10 | 214 | 8 | 3.74 | -62 | -28.97% |
| 11 | 137 | 5 | 3.65 | -51.5 | -37.59% |
| 12 | 80 | 1 | 1.25 | -72.5 | -90.63% |
| 13 | 32 | 1 | 3.13 | -23 | -71.88% |
| 14 | 11 | 2 | 18.18 | 27 | 245.45% |
| 15 | 6 | 0 | 0.00 | -6 | -100% |

The race field size sensitive form figures seem to have had an impact with only a 1.27p loss in the pound on top two rated horses.

Eager to try one or two other ingredients I decided to throw in an extra field, namely the interval time for the penultimate run. In other words how long has the horse had off between its second last run its last run. Putting these times into the same boundaries and presenting the data to the net produced the following:

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**AW Season Jan 1st – Aug 31st 2008**
**Predict NN software AI ratings Version 3**

| RatPos | Count | Wins | SR% | PL | ROI% |
|--------|-------|------|-------|---------|---------|
| 1 | 690 | 159 | 23.04 | -31.02 | -4.50% |
| 2 | 680 | 141 | 20.74 | 12.53 | 1.84% |
| 3 | 683 | 95 | 13.91 | -158.58 | -23.22% |
| 4 | 681 | 79 | 11.60 | -121.35 | -17.82% |
| 5 | 660 | 66 | 10.00 | -180.55 | -27.36% |
| 6 | 618 | 63 | 10.19 | -29.38 | -4.75% |
| 7 | 526 | 31 | 5.89 | -208.75 | -39.69% |
| 8 | 425 | 18 | 4.24 | -237.75 | -55.94% |
| 9 | 297 | 17 | 5.72 | -65 | -21.89% |
| 10 | 214 | 12 | 5.61 | -26 | -12.15% |
| 11 | 137 | 3 | 2.19 | -77 | -56.20% |
| 12 | 80 | 1 | 1.25 | -72.5 | -90.63% |
| 13 | 32 | 1 | 3.13 | -23 | -71.88% |
| 14 | 11 | 2 | 18.18 | 27 | 245.45% |
| 15 | 6 | 0 | 0.00 | -6 | -100% |

No real gains at the top here, in fact a slight reduction on the top two.

Finally I wondered whether expressing the finishing position in the current race in the same manner as the last three form figs might give the NN more footholds in which to analyse the results. I modified the finishing position to take into account the overall position and the field size and expressed this between 0 and 1 as I had done for the previous form figures.

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**AW Season Jan 1st – Aug 31st 2008**
**Predict NN software AI ratings Version 4**

| RatPos | Count | Wins | SR% | PL | ROI% |
|--------|-------|------|-------|---------|---------|
| 1 | 690 | 162 | 23.48 | -52.15 | -7.56% |
| 2 | 680 | 127 | 18.68 | -49.31 | -7.25% |
| 3 | 685 | 94 | 13.72 | -163.68 | -23.89% |
| 4 | 680 | 86 | 12.65 | -159.05 | -23.39% |
| 5 | 660 | 70 | 10.61 | -34.93 | -5.29% |
| 6 | 617 | 47 | 7.62 | -220.05 | -35.66% |
| 7 | 526 | 40 | 7.60 | -151.88 | -28.87% |
| 8 | 425 | 24 | 5.65 | -164.55 | -38.72% |
| 9 | 297 | 17 | 5.72 | -102.75 | -34.60% |
| 10 | 214 | 9 | 4.21 | -54 | -25.23% |
| 11 | 137 | 9 | 6.57 | 25 | 18.25% |
| 12 | 80 | 1 | 1.25 | -59 | -73.75% |
| 13 | 32 | 0 | 0.00 | -32 | -100% |
| 14 | 11 | 2 | 18.18 | 27 | 245.45% |
| 15 | 6 | 0 | 0.00 | -6 | -100% |

This seemed a backward step producing a loss in the pound for the top 2 rated of over 7p.

As a novice NN user the interesting feature of the experiment has been the improvement the software produced over impact value analysis. It has also broadened my knowledge of NN's and allowed me to dirty my hands on some real data. No doubt the NN gurus on the list will put me right on a few points and I look forward to their input. In the meantime I will continue to explore the world of NN generated ratings. Oh by the way I have also produced a video showing how I produced the ratings. You can download this from the magazine section of the web site www.smartersig.com.

# ENTRY PROFILING
Mark Littlewood

Horses run every day with a variety of race entries for the coming five day period. Some may only have a single entry for the race they are running in that day. Sir Mark Prescott on the other hand may have the horse entered up in a multitude of races. Is there any significance in the number of entries a horse has?. Does the entry number have greater significance for some trainers over others?. This article takes a look at the performance of horses with various entry numbers and then takes a look at the performance of trainers in one of the most promising areas. All data is from April 2005 to the present.

Lets first take a look at how horses with just a single entry performed:

Horse with 1 entry, all SP ranges

| Bets | Wins | PL | ROI% |
|---|---|---|---|
| 210955 | 19020 | -60901.4 | -28.8% |

The above tells us that for every pound bet on the above we would have lost 28.8p

Horses with 1 entry, max SP 15/2

| Bets | Wins | PL | ROI% |
|---|---|---|---|
| 68157 | 13595 | -7216.45 | -10.5% |

Horses with 2 entries, all SP's

| Bets | Wins | PL | ROI% |
|---|---|---|---|
| 60204 | 6163 | -13821.1 | -22.9% |

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Horses with 2 entries, max SP 15/2

| Bets | Wins | PL | ROI% |
|---|---|---|---|
| 22229 | 4523 | -2674.1 | -12% |

Horses with 3 entries, all SP's

| Bets | Wins | PL | ROI% |
|---|---|---|---|
| 14133 | 1651 | -2220.3 | -15.7% |

Horses with 3 entries, max SP 15/2

| Bets | Wins | PL | ROI% |
|---|---|---|---|
| 5888 | 1270 | -631.8 | -10.7% |

Horses with > 3 entries, all SP's

| Bets | Wins | PL | ROI% |
|---|---|---|---|
| 3916 | 530 | -449.4 | -11.4% |

Horses with > 3 entries, max SP 15/2

| Bets | Wins | PL | ROI% |
|---|---|---|---|
| 1859 | 427 | -78.4 | -4.2% |

What if we focus on certain trainers? Perhaps those trainers who have a better strike rate with 4+ entries than their overall strike rate.

Taking these at any SP

| Bets | Wins | PL | ROI% |
|---|---|---|---|
| 2259 | 341 | -236 | -10.4% |

And now up to 15/2

| Bets | Wins | PL | ROI% |
|---|---|---|---|
| 1165 | 286 | -14.01 | -1.2% |

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The sample sizes are now beginning to get a little small although if we increase the ratio of 4+ entry strike rate to overall strike rate to 1.2:1 we get, below 8/1, the following:

| Bets | Wins | PL | ROI% |
|------|------|------|------|
| 942 | 236 | +10.77 | +1.1% |

Which trainers might be the best to look out for when running 4+ entry horses? Some trainers have had only the odd runner under this criterion and perhaps it might be best to look at those trainers who have had at least a few runners with 4+ entries. How many 'few' should be is open to debate but opting for 20 gives us the following trainer results.

| Trainer | All % | 4+ents% | 4+ Runs | 4+ Wins | 4+ PL |
|---------|-------|---------|---------|---------|-------|
| C J Mann | 15.2 | 33.3 | 24 | 8 | **8.5** |
| J A Osborne | 13.1 | 30 | 30 | 9 | **3.07** |
| G A Swinbank | 17 | 28.6 | 21 | 6 | **4.72** |
| B W Hills | 14.4 | 28.3 | 46 | 13 | -4.77 |
| Sir Mark Prescott | 20.8 | 27.2 | 169 | 46 | **4.15** |
| N J Henderson | 21.5 | 25.7 | 35 | 9 | -5.13 |
| C R Egerton | 12.8 | 24 | 25 | 6 | **6.53** |
| J J Quinn | 11.3 | 24 | 25 | 6 | **10.32** |
| K R Burke | 11.2 | 23.1 | 39 | 9 | **21.75** |
| A King | 16.6 | 22 | 50 | 11 | -16.68 |
| P R Webber | 9.2 | 21.7 | 23 | 5 | **48.25** |
| P J Hobbs | 16.9 | 20.7 | 53 | 11 | -8.43 |
| N A Callaghan | 11 | 20 | 35 | 7 | -9.56 |
| Rae Guest | 7.4 | 20 | 20 | 4 | **47** |
| Miss Venetia Williams | 15.9 | 19.1 | 47 | 9 | **43.42** |
| M J Wallace | 12.8 | 18.9 | 37 | 7 | **20.33** |
| J R Boyle | 11.1 | 17.4 | 46 | 8 | -12.19 |
| D E Pipe | 15.4 | 16.2 | 37 | 6 | -10.99 |
| M Johnston | 16 | 16 | 218 | 35 | -58.23 |

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|---|---|---|---|---|---|
| Mrs K Waldron | 7.6 | 16 | 25 | 4 | -10.55 |
| Miss L A Perratt | 7.6 | 15.6 | 32 | 5 | **49** |
| Ian Williams | 8.1 | 15.1 | 33 | 5 | **16.25** |
| T D Easterby | 7.9 | 15.1 | 33 | 5 | **10.35** |
| Mrs A Duffield | 11.8 | 14.6 | 41 | 6 | -9.01 |
| Evan Williams | 12.9 | 14.4 | 118 | 17 | -32.41 |
| M R Channon | 10.7 | 13.8 | 109 | 15 | **3.5** |
| R T Phillips | 7.9 | 13.3 | 60 | 8 | -17.88 |
| M W Easterby | 7.8 | 12.8 | 47 | 6 | -4.75 |
| P C Haslam | 10.8 | 12.8 | 39 | 5 | -1.43 |
| M D I Usher | 6.8 | 12.5 | 32 | 4 | **19.5** |
| O Sherwood | 13.1 | 11.1 | 36 | 4 | -12.72 |
| D J Murphy | 6.5 | 10.7 | 28 | 3 | -2.5 |
| M F Harris | 7.5 | 10.5 | 105 | 11 | -40.22 |
| J W Hills | 8.4 | 10.2 | 39 | 4 | -11.5 |
| G A Butler | 12.5 | 10 | 20 | 2 | -7.67 |
| I A Wood | 6.7 | 10 | 20 | 2 | -5 |
| Miss V Haigh | 4.7 | 10 | 40 | 4 | **14.5** |
| Mrs C A Dunnett | 5.2 | 9.5 | 21 | 2 | **18.5** |
| T R George | 13.2 | 9.4 | 32 | 3 | -20.25 |
| M Scudamore | 7.1 | 9.2 | 54 | 5 | -2.75 |
| R C Guest | 8 | 9 | 166 | 15 | -77.1 |
| S Kirk | 9.4 | 8.7 | 23 | 2 | -8.5 |
| J A B Old | 9 | 7.4 | 27 | 2 | -17.75 |
| Jonjo O'Neill | 14.7 | 7.4 | 27 | 2 | -24.47 |
| W M Brisbourne | 7 | 6.7 | 45 | 3 | -3.25 |
| N A Twiston-Davies | 14.6 | 6.4 | 31 | 2 | -19 |
| M Mullineaux | 4.4 | 5.7 | 35 | 2 | -23 |
| A W Carroll | 6.6 | 5.3 | 38 | 2 | -8 |
| J R Best | 9.8 | 4.3 | 23 | 1 | -13 |
| R M Beckett | 12.9 | 4.2 | 24 | 1 | -20.5 |
| J M Bradley | 5.6 | 4.1 | 49 | 2 | -24.5 |
| Jennie Candlish | 7 | 0 | 24 | 0 | -24 |

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|---|---|---|---|---|---|
| K C Bailey | 4.8 | 0 | 24 | 0 | -24 |
| R Hannon | 12.6 | 0 | 26 | 0 | -26 |

Another approach to determining whether a trainer's runners with 4+ entries should be taken note of is to utilise Excels BINOMDIST function. This Excel function will allow us to find out what the chance is of getting 8 or more wins from 24 runs for C J Mann given that his overall strike rate is 15.2%. The smaller the values produced by BINOMDIST, the less likely the results have been produced by chance. Using a cut off point of 10% i.e.- no greater than 10% chance that the 4+ results occurred by chance, we have the following trainers to note with a few of the more interesting in bold.

| Trainer | All % | 4+ents% | 4+ Runs | 4+ Wins | 4+ PL | Binomdist |
|---|---|---|---|---|---|---|
| **Sir Mark Prescott** | 21.1 | 29.5 | 203 | 60 | 6.64 | 0.003 |
| **B W Hills** | 13.8 | 28 | 50 | 14 | -4.27 | 0.006 |
| **P S McEntee** | 4.4 | 30 | 10 | 3 | 11.5 | 0.008 |
| **J A Osborne** | 12.4 | 30 | 30 | 9 | 3.07 | 0.009 |
| Jedd O'Keeffe | 7.1 | 66.7 | 3 | 2 | 8.25 | 0.014 |
| Mrs S J Smith | 12.1 | 44.4 | 9 | 4 | 7.87 | 0.016 |
| **K R Burke** | 11 | 23.2 | 43 | 10 | 20.12 | 0.016 |
| E A L Dunlop | 12.6 | 60 | 5 | 3 | 6.12 | 0.016 |
| J Howard Johnson | 12.8 | 60 | 5 | 3 | 15 | 0.017 |
| **D McCain Jnr** | 11.4 | 33.3 | 15 | 5 | 20.83 | 0.022 |
| **R M H Cowell** | 8.2 | 28.6 | 14 | 4 | 7.37 | 0.023 |
| Tim Vaughan | 16.7 | 100 | 2 | 2 | 9 | 0.028 |
| **S C Williams** | 9.8 | 26.3 | 19 | 5 | 4 | 0.033 |
| Miss T Spearing | 1.7 | 50 | 2 | 1 | 5.5 | 0.034 |
| **J Noseda** | 19.9 | 41.2 | 17 | 7 | 14.57 | 0.037 |
| **M D Hammond** | 6.4 | 25 | 12 | 3 | 20 | 0.037 |
| **C J Mann** | 16.2 | 32 | 25 | 8 | 7.5 | 0.039 |
| A Kirtley | 2 | 50 | 2 | 1 | 15 | 0.040 |
| Andrew Turnell | 12.5 | 66.7 | 3 | 2 | 8 | 0.043 |

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|---|---|---|---|---|---|---|
| **J R Weymes** | 6.2 | 18.2 | 22 | 4 | 24 | 0.044 |
| **J H M Gosden** | 18.2 | 41.7 | 12 | 5 | 9.53 | 0.051 |
| C J Gray | 5.3 | 100 | 1 | 1 | 20 | 0.053 |
| Miss L Harrison | 5.3 | 100 | 1 | 1 | 2.75 | 0.053 |
| J Groucott | 23.1 | 100 | 2 | 2 | 3.65 | 0.053 |
| **N B King** | 9.9 | 26.7 | 15 | 4 | 16 | 0.054 |
| Mrs S J Humphrey | 5.8 | 100 | 1 | 1 | 4.5 | 0.058 |
| **G G Margarson** | 7 | 18.2 | 22 | 4 | 22 | 0.064 |
| **M R Channon** | 10.5 | 14.8 | 149 | 22 | 11.5 | 0.064 |
| **P R Webber** | 9.3 | 20.8 | 24 | 5 | 47.25 | 0.066 |
| Mrs K Waldron | 7.3 | 16.1 | 31 | 5 | -7.05 | 0.072 |
| Ernst Oertel | 3.8 | 50 | 2 | 1 | 24 | 0.075 |
| H J Evans | 7.8 | 100 | 1 | 1 | 1 | 0.078 |
| **C R Egerton** | 12.3 | 24 | 25 | 6 | 6.53 | 0.078 |
| B De Haan | 7.9 | 100 | 1 | 1 | 2.25 | 0.079 |
| **A M Balding** | 10.6 | 30 | 10 | 3 | -1.31 | 0.081 |
| Graeme P McPherson | 8.3 | 100 | 1 | 1 | 5 | 0.083 |
| N A Callaghan | 11 | 20 | 35 | 7 | -9.56 | 0.083 |
| S Curran | 8.5 | 100 | 1 | 1 | 6 | 0.085 |
| **M W Easterby** | 7.6 | 13.7 | 51 | 7 | 0.25 | 0.090 |
| M L W Bell | 13.7 | 50 | 4 | 2 | 8.5 | 0.093 |
| G A Charlton | 9.7 | 100 | 1 | 1 | 2.75 | 0.097 |
| Miss Tor Sturgis | 9.8 | 100 | 1 | 1 | 2.5 | 0.098 |

Wanting to find out a little more about entry policy I politely as possible engaged in a conversation with Barry Hills and his wife on the way out of York races a couple of years ago. I asked him if the more entries a horse had indicated greater confidence in the horse by the trainer, after all it is the owner's money they are spending. He replied that the poorer horse required a greater number of entries. I am not sure his figures back that up and as a result I have yet to really understand what he meant by the statement. Perhaps Sir Mark Prescott would be a better person to ask.

# PACE ANGLES FOR PROFIT ON THE AW

David Renham

With the turf flat season drawing to a close, punters who enjoy their flat racing have all weather racing to keep their minds ticking over during the long winter months. With Kempton now added to Lingfield, Southwell and Wolverhampton, there has never been a better time in this country to try and profit from all weather racing.

A perennial problem for all punters is finding strategies from which to produce consistent profits. As soon as one profitable avenue opens, it is not long before it closes. Take draw bias for example. Ten to fifteen years ago, the "draw experts" had a really significant edge over the majority of punters; the main reason being that draw bias was not fully understood, and in some cases not even reported. Indeed, at that time, many punters would have had little or no knowledge of draw bias whatsoever. With no racing channels available in homes, and little if any literature on the subject of the draw, the draw experts at the track were much more aware of biases than the average punter. Hence they stayed "ahead of the crowd", especially when it came to tracks with more subtle biases - for example due to going considerations or positioning of the stalls. These draw punters would also have been in the best position to notice any change in bias, which does happen at some courses from time to time. All this information would have been extremely valuable to the draw expert and it is clear that the prices of well-drawn horses were greater during this period with fewer punters "lumping on".

Moving through to the present day things have changed considerably in terms of the public perception and understanding of the draw, and its potential for bias. Draw bias has been a "hot" flat racing topic for the last ten years or so due to much more media coverage. Hence, the public are much more aware of draw bias and most punters now take this into consideration when making their bet or bets. With more public awareness, the prices of well-drawn horses have started to contract and hence some, if not all of the value has diminished. Add to that rail movement from course officials and "recreational watering", and draw experts are left with very little margin for error these days.

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The aim of this series of articles is to find a strategy that has the potential to remain profitable for not only this winter, but hopefully for a few years to come. It is not a new idea, but is one that I believe is under-used and under-rated. The strategy is based on "early" pace and finding all weather course and distances that favour either front runners, or horses held up for a late run. My research has focused on Wolverhampton for this piece; Southwell will be covered next week, and Lingfield the week after. As yet there have not been enough races at Kempton to give an accurate assessment. In order to research this I have used the "comments in running" found in the form book.

My starting point was to work out a "pace average" for each distance at Wolverhampton. I calculated this "pace average" by giving each winner a "pace score", and then dividing the total of the pace scores by the numbers of winners. The scoring system was thus:

5 points – for comments like "made all", "made most", "led for 4f", etc.
4 points – for comments like "tracked leader", "prominent", etc.
3 points – for comments like "in touch", "chased leaders", etc.
2 points – for comments like "held up", "midfield", etc.
1 point – for comments like "behind", "raced in last", etc.

Therefore, the higher the average pace figure, the more likely the race was to be won by horses that raced up with the pace.

**Wolverhampton** – the Midlands track was re-laid with a Polytrack surface in the summer of 2004, and hence I have used data from October 2004 to September 2006. I have used handicap races with 10 or more runners. The reason for using handicaps with at least 10 runners is twofold – firstly handicaps are competitive by nature and should give the most accurate results, and secondly bigger fields are more likely to be run at a "true" pace.

The table below gives a pace average for each distance at Wolverhampton:

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| Distance | Number of races | Winning Pace average |
|---|---|---|
| 5f | 54 | 3.31 |
| 6f | 84 | 2.98 |
| 7f | 105 | 2.82 |
| 1m1f * | 178 | 2.60 |
| 1m4f | 60 | 2.63 |
| 1m6f or more | 50 | 2.52 |

* 1m 1f results cover two distances - one just below 1m 1f and the other just above 1m 1f.

In order to help readers interpret the table, it should be stated that the average pace figure for each race is around 2.55. Therefore, this is the base figure that one should use when looking at the winning pace averages for individual distances. Hence, the results indicate that over 5 furlongs, horses that race close to the pace have a definite advantage, with a winning pace average of 3.31 (well above 2.55 base figure). However, this advantage tends to diminish as the distance increases.

This theory is backed up when we look at the success of front runners (horses that led early in the race, and led for several furlongs):

| Distance | % of winners for front runners |
|---|---|
| 5f | 18.5% |
| 6f | 14.3% |
| 7f | 14.3% |
| 1m1f * | 8.4% |
| 1m4f | 13.3% |
| 1m6f or more | 2.0% |

It can be seen that front runners have been very successful over 5 furlongs with a success rate close to 1 win in 5. Compare this to the success of front runners racing over 1m 6f or more with just 1 win from the 50 races studied.

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**Strategies to implement** – from this research I believe there to be two different strategies that can be employed in an attempt to make consistent profits at Wolverhampton.

**1. Backing a front runner over 5f** – with an 18.5% strike rate for front runners, this looks a sensible strategy. The problem of course is predicting the front runner before the race. My personal approach is to produce individual horse pace figures using the same criteria as I use for calculating the course pace averages. Using a horse's last three races, I award between 1 and 5 points depending on the formbook comments they have earned, and then calculate an average. For example, a horse that has led in both his last 2 races, but was "held up" in the third, would get a pace figure average of 4 (5+5+2 =12; then divide by 3).

These figures can then be used to try to decide who is going to front run. Of course the horse with the highest pace figure is not guaranteed to lead, and other factors like the draw come into account. Hence, let us look at an example from earlier this year with a 5f handicap run at Wolverhampton on 27th February 2006. It was a 12 runner race and the pace figures for each horse were as follows:

| | | |
|---|---|---|
| Mountain Pass 5.00 | Almaty Express 4.33 | Canadian Danehill 4.33 |
| Hammer of the Gods 3.67 | El Potro 3.33 | Fizzlephut 3.33 |
| Caustic Wit 3.00 | Gone 'N' Dunnett 2.67 | Mambazo 2.67 |
| Rover Fever 2.67 | Domirati 2.00 | Namir 1.00 |

Horses with a pace figure of over 4.00 must have led in at least one of their races and therefore, this race seemed to have three potential front runners – Mountain Pass (5.00), Almaty Express (4.33) and Canadian Danehill (4.33). Further inspection of their recent runs showed that Mountain Pass had led in each of his last three runs, but all the races had been maidens. Maidens are generally much less competitive than handicaps and hence easier for a front runner to lead. This detail, coupled with the fact this was Mountain Pass's first handicap race, made it less likely he would lead. He also was drawn in seven, whereas Almaty Express and Canadian Danehill were drawn nearer the inside rail in stalls 4 and 2 respectively. Hence it seemed more likely that either Almaty

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Express or Canadian Danehill would lead. It was difficult to split the pair and decide which horse would lead, but there were two additional factors that helped with that decision. The presence of Darryll Holland on Almaty Express was a positive as not only does he ride well from the front, the last time he had ridden Almaty Express the previous August, the horse had won making all the running. Another fact in Almaty Express's favour was that he was a genuine 5f sprinter, whereas Canadian Danehill races between 5 and 7f. Therefore, Almaty Express looked the most likely front runner, and that would have proved a sound decision as Almaty Express not only led early, he "made all" winning at the juicy price of 14/1.

Of course, races do not always pan out as well as this, and as we have seen, according to the stats the front runner will win only 18.5% of the time in these 5f races. However, with a bit of hard work, (calculating the horse pace averages, taking into account the draw and other factors), punters will put themselves in a position where profits can be made. If you had correctly predicted the front runner in all the 5f handicaps at Wolverhampton since October 2004 (10 or more runners), you would have made an 18.33 point profit (+33.9%). This is assuming you had backed every single one of course!

To help one profit further, no horse drawn wider than eight managed to "front run" and win. Hence if your research pointed to the most likely front runner being drawn 9 to 13, then you could have confidently left the race alone. That would have eliminated several losers, increasing profits in the process.

An alternative approach would be to bet "in running" and wait for the first furlong to be run and back the leader with around 4 furlongs to go. The advantage of this is that you will virtually always pick the right horse (the front runner), the disadvantage would be that you might have to take a slightly shorter price about the horse in question.

**2. Laying a front runner over 1m6f or more** – the stats generated earlier showed that at 1m 6f or more, the front runner managed to win only once in 50 races. Hence, using reverse psychology to our first strategy, it seems logical to lay front runners in these long-distance events. The beauty of this idea, is that you do not need do any research before the race; simply wait for the race to start, see how the first 3 or 4

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furlongs unfold and simply lay the horse that is leading. Simple, eh? Another advantage of this strategy is that the horse in question should be trading at a lower price than when the race started. Hence, if you are unlucky enough to watch the horse "make all", then the chances are you would have been able to lay at under starting price. That will limit any losses considerably. Indeed, the longer you can leave it before laying the horse the better.

Employing this strategy over the past 2 season would have yielded a profit of 40 points (+80%), assuming you were able to lay the one winning front runner at SP.

# PROFITING FROM PULLERS

Mark Littlewood

How many of you were on New Approach for the Derby? If you were, how did you feel after 4f? Tempted to lay off your bet? I couldn't criticise you if you had as pullers have a very poor record in a race once they have started fighting for their head and New Approach was clearly giving his jockey a hard time. The fact that he overcame this, and some trouble in running in the straight, marks him down in my book as a very special horse. In fact if he is now to be trained for middle distance races and learns to settle he could be as good as anything we have seen over the trip for some time.

If pullers are such bad bets within the race they are pulling in, what kind of bets do they offer when reappearing after lengthening their jockey's arms? It is quite possible that pulling is a forgivable trait and if a horse can settle much better in its next run, there may be a possibility that the puller is under-bet.

Taking a look at all horses over the last nine years on the flat that 'pulled hard' in their previous race we have the following next time out results:

| Bets | Wins | PL | ROI% |
|---|---|---|---|
| 7083 | 663 | -1799.3 | -25.4% |

If we now focus on only those that subsequently went off at less than 8/1 we have:-

| Bets | Wins | PL | ROI% |
|---|---|---|---|
| 2093 | 451 | +1.6 | +0% |

Looking for some further improvement on these figures I decided to check for horses that had pulled hard on their previous run for the first time in my records. This could signal an inexperienced horse or a one off occurrence, both of which might be more likely to be corrected next time out. The figures were:-

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| Bets | Wins | PL | ROI% |
|------|------|------|------|
| 1550 | 350 | +46.6 | +3% |

A return of 3% is quite respectable to SP and with some prudent odds checking I am sure the above would have returned around +12%.

Keep a forgiving eye open for these runners on the flat as the public seem to be under-betting them next time out. Here are a few of the more recent pullers.

Grey Boy

Appalachian Trail

Sakhees Song

Spell Caster

Moonstreaker

Aegean Prince

Ceka Dancer

# MAKING A PROFIT WITH SPREAD BETTING

Alex Yitlle

This article will give you some tips on making money in the spread betting market with particular reference to the horse racing side as that's what the majority of smartersig members seem interested in. I make a steady income from this and I make no apology for not telling you exactly how I do it or which markets I specialise in. This is also why this is not written under my real name. I have no wish for the spread betting firms I deal with to get wind of how I work. My objective is to keep a low profile. The only reason I'm writing this is that you guys have provided me with a great deal of help, albeit sometimes unwittingly so, therefore I can hopefully give a bit back.

I know you have some very fancy guys with figures and statistics so I won't waste reams of space with formulae backing up what I say. If they want to check the mathematics then feel free. I know it all works.

Firstly, from the point of view of the betting firms, setting up a spread market is much easier to do than running a book on a race. This is due to the following: if you balance the money from the buyers and sellers then it doesn't matter where the market makes up. Further more you, as a market maker, are guaranteed to make the amount you have matched times the size of your spread whatever the result.

Take this example: say you as a market maker believe that the distances at Wolves will make up to 9 lengths for a meeting. So you put it up at 8.5 to sell; 9.5 to buy? Maybe not. If you believe that there will be more buyers than sellers then you might put it up at 8.8-9.8. You might even put it up at 9.1-10.1. Even if you are giving the punters "a good thing" it is worth doing that to make a balanced book. Of course you can take a position but why do that when you can just try and balance your book? Another problem your market maker has is that of arbitrages. I'll talk more about that from the punters' view later.

For the market makers arbitrages are not a great idea as they can cause greatly unbalanced books.

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For example, consider I'm the market maker for say Spreadex and I'm ready to put Wolves up at 8.5 – 9.5. IG index and SportingIndex have already put their prices up and I discover they are at 7.5 – 8.5 and 7.3-8.3 respectively. If I put up at 8.5 –9.5 then all that will happen is all the punters with accounts with Spreadex and SportingIndex have to do is buy at 8.3 with SportingIndex and sell at 8.5 with me. They then are guaranteed 0.2 times their stake profit whatever happens. Now it might be they take their profit from SportingIndex rather than me but they will be trying to back in large lumps so I'm going to have a very risky book. So I open 8.3-9.3 or even 8.0-9.0.

The key here is that from the market making point of view the first principle is to balance your book. Getting it "right" is relatively unimportant. If you look at any racing market - lengths, SP's, feather weights, double numbers or whatever - they very rarely finish up within the spreads offered. And this, my brothers, is the great advantage that we have in spread betting over the bet to win brigade. You look at how good SP is at assessing the chance of a horse winning. The stats boys argue whether SP is related to the real chance of winning by a straight line, logs or the phases of the moon. All I can say it's too close and accurate for me. So as long as the spread-betting firms can balance their markets they don't give a stuff about which horse wins or how many lengths it wins by. If it does drop in the spread then all well and good - it's a bonus for them.

How does that help us the poor punter? Well for a start spread firms are concerned about balancing, not the result. So if we have a method that can predict a result for a given market then we have a fighting chance of getting some money on. Furthermore the firm may be quite happy with us doing so. Happy to pay out; how so?

Consider the SP market; say I reckon Wolverhampton will make up to 34. I look at Sporting Index and they're offering 34-37 and the other markets are worse from my point of view. Then suddenly they offer 35-38. The reason they're doing that is that they have had a lot of buys and need some sell money to balance and to deter the buyers. Bargain. In we go sell at 35. I'm happy, they're happy. Why are they happy? Because whatever the outcome they are now guaranteed to make two times my stake and they've reduced their liabilities on all the buys at 37. I'm happy because I'm betting at a point advantage.

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A point advantage I hear you say, that's not much. Agreed, in January I made 160 points. I don't discuss money but even at £1 a point it's not to be sneezed at.

However with spread betting your advantage is sacrosanct and you must never ever compromise on it. I've seen you racing boys, "I'll bet Loppylugs if he's at 10/1". You hang around the ring and he barely touches 9's. Finally, in desperation you put on your £50 at 9's. He duly loses. You're £50 adrift but that would have been the same if you'd have got him at 10's. It always amuses me when you seem to blame the loss on failing to get 10/1 instead of the fact the horse was a donkey. Thus, getting the best price only matters to your pocket if the horse wins.

Now consider us spread bettors. I decide to bet £5 a point on double numbers at Warwick. I reckon they will make up to 84. Below are the prices:

| | | |
|---|---|---|
| SportingIndex | 80 | 84 |
| IGindex | 78 | 82 |
| Spreadex | 76 | 80 |
| Spreadfair | 80 | 84 |
| Sports Spread | 80 | 84 |

Now let's say I take a buy on IGindex at 82 instead of the 80 I can get with Spreadex. If the bet wins I will win £10 less than I could have done. If it loses I also pay out £10 more than I could have done. For spread bettors, taking a worse price guarantees either a bigger loss or smaller win.

So you need accounts with all the spread betting firms you can conveniently find. I have accounts with all those listed above. If you just have an account with SportingIndex say to try it out you might as well be boxing with one hand behind your back. You need all the accounts. You need to take the best price. To do this you also need a good fast broadband connection and some fine judgement as to where the prices are moving. The good news is I don't always get it right either and neither will you but a point here and a point there soon mount up.

So you've got all your accounts. What markets should we try? There is a great temptation to try the 50/30/20/10 or 50/25/10 horse performance

markets, as these are nearly the same as betting on horses that you are used to. I would try and avoid them if you can as these markets are difficult. For example in a 50/30/20/10 market you need to be thinking about the chance of your horse coming. 4th. To me that is very difficult. The very betting markets from which we're trying to escape also drive these markets. My suggestions for racing; in no particular order are Jockey performances, Top of the card, SP's, winning distances, double numbers and favourites index. I would suggest you pick one of these and get to know about it. Not only do you have to build up a way of predicting the outcome, but you also need to be able to anticipate how the market moves. For example a non-runner can cause the SP market to drop but if the horse is an odds-on favourite the market can rise. If the going gets softer the distance market often moves higher.

Now you need to understand your betting firms. Below is a potted biography of each of the above firms.

**Sporting Index** - They are usually first up with the prices and are the only company to offer aggregate markets over a whole days racing. These markets are useful, as sometimes they don't update them as fast as they do the other markets. They have a strange system whereby you are told you can only put £15 on a bet but then having put that on you can put another £10 on straight after. They offer a 100-point stop loss on some bets, which is generally useless. They are very fast to settle. They offer credit facilities.

**IGIndex -** They are second up with the prices. Probably the best dealing screens. They give a 50-point stop loss on some bets. For example take SP's. Thus if you sell at 60 and the meeting makes up to 130 you only have to pay 50 not 70. In return for this you must deposit enough to cover your bets with IGIndex. Their prices are generally not the most extreme, but they are good at taking larger bets.

**Spreadex**. - Generally third to the fray. To balance this they are often willing to offer early prices away from the big two. Dealing is slower and they sometimes will knock you back with a change of quote. You try to buy at 60 and they will only let you buy at 61. They have less markets than the big two. However, they do well in the arbitrage hunting of which more later. They offer credit facilities.

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**Sports Spread**. Smaller and slower than all the rest. They insist on relaying every trade to a trader, which is slow. They are very conservative and rarely offer the best prices. They have stop loss and heaven forfend stop win so you can only win a maximum number of points. So why have the account? See later!

**Cantor Spreadfair**. This is a strange animal. It is supposed to be a spread betting exchange. Like Betfair buyers and sellers are supposed to offer prices and Spreadfair takes a commission 4-5% of any winning trades. If this is an exchange I am a Dutchman. All the prices appear at the same time. The amounts are suspiciously balanced. There are one or two little oddities that offer £1 prices before the main amounts appear. If one were cynical, one would say it was Spreadfair's own money. On the good news the spreads are much smaller here than with the other accounts. For example the normal spread for double numbers is 4 points say 80-84 whereas on Spreadfair it could be 81-81.5. Good for arbitrage but only four markets for each meeting.

You need to read all the rules about your market. What happens if a meeting's abandoned? What happens with dead heats? What is the stop loss for my market? Does the stop loss cut in during the market or only at the end?

Now, on to free money known as arbitrage. The best markets to achieve that are those with a smaller spread. If the market has a four spread you will need two markets whose midpoints are 5 apart in order to get an arbitrage so this is pretty unlikely.

When do the spreads get smaller? At the end of the day as meetings draw to a close for example Jockey performances go down to a spread of 2. It only needs a fat finger by the price setter or a run of money on one firm and off we go.

Let say we find W.Marston 5-6 on IGindex while he's 7-8 on Spreadex. What do we do? Obviously buy on IGindex and sell on Spreadex. Now a keynote here is not to be too greedy. You cannot put the bets on at exactly the same time. It's going to be financially embarrassing if you get the sell on with Spreadex and then find the price has gone to 6.5-7.5 with IGindex. If you've dumped £100 a point on you could be looking at an £1800 loss were Mr Marston to pick up a winner. Close it off and you're

down £50. Also. always put the buy bit on first, as that way you can often limit your downside if it all turns pear shaped. I bet at most 4 units on arbitrages. That way I do keep off the spread firms' radar while still picking up some free money. Another practical problem with large arbitrages is they can leave you financially unstable. For instance, taking the example above assume we put £100 on both sides of Mr. Marston. If he gets a winner then our Spreadex account is -£1800 while our IGindex account is up £1900. Transferring money to firms is quick but getting it back can take several days. You could find you were missing trades while your accounts were rebalanced.

The other beauty of arbitrage is that it doesn't matter what the market is. You can create quite a nice screen of your main activities while an assortment of small inter firm arbitrages bounce your money around.

It is worth mentioning Cantor Spreadfair here as they often are a good source of arbitrages particularly on distances. However remember the 5% take on winning bets. Arbitrage with them is not as guaranteed as with the other firms. For example, if there is a big mark up then the win less deduction may not cover the loss with the other firm.

However by trying to arbitrage at the end of meetings the mark-up is less likely to be large. (Unless that 100/1 shot wins the last!)

Sporting Index can provide another arbitrage opportunity as they do aggregate markets for a whole days racing. These are not updated after the start of racing but are often not updated much before either. It's worth looking for distance and SP arbitrages where you buy individual markets with Cantor Spreadfair and sell the aggregate on Sporting Index.

Keeping a low profile is a good idea. Spread betting firms will close your account if you are making big hits or are too aggressive. I run a staking system (thanks for this boys), which means that my bet values vary. Also if I have several firms offering the same price I will try and split my bet between them. See that's why SportsSpread are kept on.

What do you need from your prediction method? Other than accuracy it should have the following features. It should produce unambiguous results from unambiguous easily available data. It should be quick. I don't want some computer program that takes 10 minutes to refit the data when a horse is withdrawn at Newton Abbott. Most importantly it

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should be able to take results that have already occurred in the market to predict the final outcome of the market.

For example say I am doing lengths at Exeter. I bought them at 42 and after three races they are quoted at best at 60-64. Should I sell and take my 18-point profit? If my model predicts they should make up to 63 taking into account what has already occurred then I'm better off sitting tight as on average I'll be 3 points better off. However if my model says the final make up should be 58 taking the first three races into account then I should sell at 60.

You can also pick up opportunities to bet during the day. Say you are betting double numbers and the initial quote is 70-74 and your model predicts 71 then there is no trade. However after four races the market is now 48-50 and your model predicts 51. You should now buy at 50.

You must have total confidence in your model. If you are trying to fudge the answers, "It says 8 lengths but I reckon there is a head wind so I'll add a bit on," then stop and go and redesign the model to include the wind properly.

Confidence in yourself and the model is vital as spread betting is very volatile. With mark-ups of several hundred points possible in some markets for example Sporting Index Multimules you need to be very confident your model and you will grind out a result in the end. When you've sold favourites and every one on an eight-runner card has won it can be very lonely.

Dealing in more than one market can help with this but as I previously said specialisation is a key skill. You need to know your markets, your model and your betting inside out.

You also need to check all your bets. I've had errors made by all the firms. Generally, by using the wrong mark-up or sometimes just a simple calculation error. To their credit when this is pointed out it is corrected without demure.

The final thing about spread betting is no one will appreciate it. You can't go to the pub and say "I sold Southwell distances at 9 and they made up

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to 3" whereas you can say "I had a 10/1 winner at Ludlow today" and they'll understand what's going on.

You'll get some really odd looks at the race course as you cheer home the 66/1 outsider like a dervish and when asked "how much do you have on him then?" you reply "Nothing but I've bought SP's".

# K.I.S.S
David Renham

One of the regular features in the old Smartsig magazine was the KISS system page. I am assuming that it meant "keep it simple stupid". I thought for this edition I would offer such a **flat** system that may prove profitable to follow in the future. It has proved profitable over the period of study from 2000 to 2007.

**Well beaten LTO KISS**

**Rules**

1. Must be top rated by Racing Post Ratings and Topspeed.
2. Forecast favourite in the Racing Post
3. Beaten at least 6 lengths LTO
4. Age of horse 3 to 6yo
5. Off the track 79 days or less

The results from 2000 to 2007

Qualifiers 825
Wins 311
Strike Rate 37.7%
Profit +£114.15 (to £1 level stakes)
ROI +13.8%

Essentially this is a very easy to apply system assuming you get the Racing Post or use the online version of the paper. It seems unlikely that a horse who was beaten by at least 6 lengths last time out will be forecast favourite AND top rated by both of the two main ratings systems of the Racing Post. However, on average just over 100 horses match this criteria each year, and the overall results are very encouraging. 7 of the last 8 years have seen the system in profit.

Adding an extra filter or two can make the profit margin improve a little but we are looking for a system with very few rules and hence I am happy to stick with what we have got. Next month I will offer a 2yo KISS that has been profitable over the past years.

# THE NEWMARKET WIZARDS III

*Interview with Alan Potts*

This months interview is with book author, TV pundit, WBX columnist and most importantly long time successful pro punter Alan Potts.

***How did you first get interested in horse racing and betting?***
Betting was always something I enjoyed from an early age - pontoon with my uncles, sixpence each way on the National, checking my Dad's football pools, all from the age of six or seven onwards. The legalisation of betting shops came when I was 14, so the timing was perfect for a teenager that liked to bet. I was a maths whizz at school and that side of betting and racing was part of the appeal. I saw my first horse race live when I was playing cricket one Monday evening on a ground in the centre of the loop at Alexandra Palace near my home in North London - the horses effectively raced round the boundary and it looked a lot more exciting than cricket. I went back a week later and that was my first race meeting - I was aged 14. Within two years I was working in the local betting shop on Saturdays and during the school holidays.

***How successful or unsuccessful were you when you first started to bet regularly; did you serve the typical losing apprenticeship?***
I went through all the usual phases of form book, systems, tipsters, and pins. Losing was certainly my normal experience through the 60s and 70s. Like all punters I remember the winners, but only once did I win enough to actually justify all the effort. The autumn of 1976 was very wet after a drought and I had a golden two months backing soft ground performers who had no form because the ground had been rock hard all summer. The winnings helped to pay for new furniture and a car (a Triumph TR6, one of my lifelong ambitions). I'd say it took me twenty years to learn how to consistently break even and another five to become a regular winner.

***Twenty years sounds familiar to me. Looking back do you think there could have been a shorter route to finding a consistently profitable approach?.***

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Given the lack of educational material available in that era and the paucity of information, I can't think of anything that would have made much difference. The internet has changed betting, but it's far more important as a source of information when combined with the ability to use computers to analyse that information. The amount of time that would have been needed to collect information, let alone do the research, simply wasn't practical alongside a full time job and a reasonable social life. It's indicative of the lack of sophistication of the 70s that I could actually win money (occasionally) just by identifying a small group of horses that relished soft ground. To give an example, I saw a filly called Lucent hack up in a soft ground maiden at Doncaster on TV as a 2-y-old. The following summer, she turned up in the entries for a handicap at a Windsor evening meeting I was planning to attend. It rained all day before the racing and I backed her with total confidence - but I'd guess 90%+ of punters had no idea that she was better on soft ground, because the only way to know was to have remembered that race from the previous year.

***Could you cite any pivotal moments or influences in your early regular betting life that shaped your style and approach to successful betting?***
The first bet that persuaded me there was a pattern that I could interpret was at my beloved Aly Pally. It was spring 1969, the horse was called Little Earwig - he'd finished second over the course and distance and was a few pounds better off with the winner. I was sure he could reverse the form and had £30 at 100/30 with a course bookie (to put that sum in perspective, I bought a new house later that year and my monthly mortgage payment was £39). He won OK, although I can't remember any other winners from 1969 and I doubt if the £100 lasted very long!

***How would you summarise your style of betting. I get the impression that you are not a systems man but someone who is confident and relies on his own judgment about what is a good bet.***
Inevitably it's changed a lot over the years, but the basics since I stopped being a loser have been to watch a lot, listen a little, ignore 'inside information', be cynical about hype and rely on my own judgement. My ideal was always to go for the big return, so that when I found a decent priced winner, the profit was substantial and worthwhile.

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***What would be a typical betting day for you - e.g.- 10.00pm compile list of contenders, 8.00am compile odds line, 10.00am check betfair prices etc etc etc***

Not more than two hours early morning with the form book, often a lot less - by watching all the racing, I find I can absorb a lot of information that I don't have to look up again. My current approach, which is almost the total opposite of what I've done most of my life, is to concentrate on short priced horses, either backing or laying them on Betfair. So the first task is to identify the races I'm interested in and all the 3/1 the field handicaps get the chop immediately. Then focus on the favourite and establish the positives and negatives for that horse - using form, time, draw, going, stable form, jumping ability etc to set a target price. Then check prices on BF and monitor the markets up to the start of racing. I watch most racing, although I might draw the line at some of the low grade evening meetings and I'm constantly looking for horses of interest for next time (positive or negative) and for patterns in the racing that might indicate any form of bias on the track. A typical example of that would be horses running well from a bad draw or vice versa. I have a method of splitting big field results by draw to see if any horse stands out - e.g. in a 16 runner race, look at the horses drawn 1 - 8 as if that was a separate race. If one horse from that group beat the other seven by a wide margin, he's almost certainly run better than the bare result of the overall race suggests. I also reserve up to an hour per day for a review of races and bets and I do a weekly round up on Sunday or Monday. As a general rule, I don't bet on Monday or Tuesday and keep those days clear as my 'weekend'.

***Do you have any particular methods or approaches to handling a bad run of results. Could you give an example of a typical poor run e.g. time span, bets, pts lost.***

Not difficult to find an example of a losing run as I'm on one at present! I made around £50k in 2004 and 2005, £20k in 2006 and was over £30k up for 2007 at the end of last October. Since then I've had two winning months that produced less than £1k profit between them and the other three months have seen a loss of £20k. At the time of writing, April 2008 is level. So I'm down over £19k for the last six months. I handle that by sticking to my approach, recognising that there's nothing very unusual about such a run. My experience over the last 20 years is that profit comes in bursts and that much of the time I'm either treading water or losing slowly. Losing an average of £3k per month over a six month period is no surprise, although it's the longest such period I've

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experienced for several years. I use what I guess a shrink would call positive reinforcement - I go back to times when I won big, watch the videos of those races, read my account books and diaries, all with the intention of reminding myself what is possible. I'll also take a short break from betting to get negative thoughts out of my system - I did that most recently the week after Aintree earlier this month.

***Does it not worry you that the week after Aintree could have been a superb week for you or do you feel during these periods that your judgement needs a rest and therefore the break is unavoidable?.***

I'm certain that regular breaks from betting are essential (although perhaps my age is an influence – I turned 60 last August). When I started out full time in 1991, there was no Sunday racing, far fewer evening meetings and generally less racing than there is today. Also, since like almost all professionals then, I bet on course, by only going racing three or four days per week, the workload was kept manageable. With the volume of racing we have now, I'm quite sure that keeping mentally fresh is a big help - sit and do this seven days per week, 52 weeks of the year and you'd go stir crazy. Read the BF forum any day for evidence! It's possibly a harsh judgement, but I feel that most losing punters go on losing because they never stop to actually think about what they are doing (and of course the non stop nature of the 'product' these days is designed to achieve exactly that).

***My impression of your betting is perhaps one of quality rather than quantity. I believe in the past you have averaged around 300 – 400 bets a year. Is this correct or has it changed.***

Fifteen years ago, soon after I turned full time and was doing almost all my betting on course, I had around 300 bets in a year and concentrated on the better racing. Ten years ago, that was still the same, with the addition of spread betting as an off course activity that provided useful profits for a short period (a couple of years) until the firms effectively removed my edge. Five years ago, the high stake single win bet at 'value' prices was still my staple, but the internet was changing the world, the on course market was suffering and I could see that I needed to alter my approach. Now, I've given up the high stakes single win, mostly because I could no longer find the value, such has been the impact of the exchanges and the limitless supply of information available to punters. I work almost exclusively with short priced horses on BF, because that's where the liquidity is greatest and that's where an edge can still be

found. If this losing run continues for a few more months, I'll have to think again! Betting on course is no longer an option, as away from the big meetings, there isn't the money there any more, the bookies I knew and worked with have mostly retired or sold up and the costs of travel and admission (time as well as money) are now a significant factor. Why spend three hours in my car on the motorway to stand in the cold and wet taking worse prices than I could get in my office at home in the warm and dry? So I have changed from a high stakes low turnover punter to a low stakes, high turnover player on the exchanges. To clarify that, by high stakes I mean backing horses to win five to ten thousand, by low stakes I mean laying them to lose £400 to £500. On average I bet around thirty races per week, so I'm turning over more money and accepting a lower percentage return.

***I can see why you are laying at the shorter end but does this mean you are also backing at the shorter end of the market, using the exchanges to grind out a smaller return but on a higher turnover.***
Yes - at a rough estimate, I'm turning over about £750,000 per annum and making around 4% after commission averaged over the last five years. The split of laying to backing would be around 70/30 and the back bets do still include horses outside the short price range, but to much smaller stakes than I would have used on course. The basic method is to ensure the maximum loss on a race cannot exceed a set limit (currently £500) - the betting on a race might include more than one lay, or a mix of back and lay on different horses.

***I know you bet on horse racing, do you bet on other events. How about laying and trading, do they play any significant part in your activities?***
I have dabbled with various sports, but never at the same level as my betting on racing. Just occasionally a price will catch my eye - at the start of this football season, I took the 6/4 for Reading to finish in the bottom six and that looks like producing a profit that will help the account for May. But that's the only football bet I've had in the last 12 months - I don't bet on individual matches.

***What do you see as the key characteristics needed in a successful professional gambler?***
Self confidence, belief, arrogance - call it what you will, but if you harbour doubts about your ability to succeed, you will fail. The ability to take the

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long term view - the idea (commonly debated on the BF forum) that you can set a target to win so much per day is frankly laughable. It's one thing to have a target of £x thousand per year and then calculate what that means in daily terms, but to say, I'll win £x today and then stop is plain daft. The mental strength to deal with the negative view that most of society will take of your chosen profession. There are no estate agents advertising million pound houses in the Surrey professional punter belt. Flexibility - what worked then doesn't work now, what works now probably won't work by 2012.

**What are your tools of the trade so to speak. What range of facilities and by that I mean visuals, ratings, books and anything else that contributes to your daily profession.**
Racing Post delivered by the local wholesale depot at 6 a.m. Timeform Perspective delivered by post. Laptop with broadband, with the Post website, Betfair and the BHA website (only available as I'm an owner, but useful as best source of going reports, non runners, entries and declarations) as the main sites used. Sky via satellite dish for ATR and RUK. Total cost of these things around £2200 per annum. All fairly simple and basic - I don't bet in running, so I've not found any need to use an interface with Betfair. I stick to paper for the Post and Perspective as I spend enough time gazing at a computer screen already. The key piece of equipment is the one inside my skull!

**There will always be a nucleus of people contemplating becoming a full time pro' in the betting world. What are the positives and negatives of such a working life style?**
The positives are much as they always were - freedom from routine, the feeling of doing something that is beyond most people, the pleasure of turning a hobby into a living. The negatives, especially in the modern era - solitude, the hours spent in front on a computer screen and a TV, the difficulty of going back if things don't work out.

**Finally, if I presented in front of you a willing wannabe professional punter (horse racing), who is the type of punter who doesn't lose a lot over the year but cannot quite break into the regular profit zone. What advice would you offer such a person? Are there any simple tips that might improve the bottom line by the required amount?**
Make a plan - what races will you bet on, how many bets, what stakes etc. You can't start any business without a plan and this one is no

different. Specialise - it's old advice, but it's still valid. Analyse - especially analyse your losers post race. Is there a pattern that you can break out of and either stop making so many losing bets, or even turn some of them into winners. It goes without saying that this sort of analysis depends on you having proper records of your bets. When I became a full time punter, I found after five years that I was backing the same number of winners per annum, but fewer losers - and that was the key difference in my accounts.

### Readers Questions

***Any plans for another book?***
No - the publisher of the other two went into liquidation seven years ago owing me five grand in royalties and I haven't seen a penny from any copies that have been sold since then. So I learned my lesson - the only people that make money from books are publishers and retailers.

***Hi Alan, being a pro punter do you have to pay tax on your profit?***
No, gambling winnings are tax free, as confirmed to me by a cousin that has a very senior post with the Inland Revenue. I do pay tax on any earnings from other sources, such as my writing.

***How did you come to own CD Europe, and is this the start of you entering more horse ownership? How did the pro punter adapt to the role of owner?***
I don't own CD Europe. I don't own Sizing Europe either, which I suspect is the one you meant. The owner of that horse and many others with similar names trained in Ireland is called Alan Potts, but he's a Yorkshire born businessman who owns a company that makes an essential piece of mining equipment called a sizer, hence the names chosen for his horses. I have got used to being mistaken for him, but I understand he's get very pissed off when he's asked for tips! The horses I'm involved with run in the name of the Golden Anorak Partnership, a joke name based on a headline over an interview with me in the now defunct magazine Sports Advisor.

***Alan, how many actual pro gamblers do you know of, secondly, how many of them have no other income such as tipsters, owners, pundit?. All the well known faces we see on the tv each have one of the above to supplement their income.***

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By direct contact on the racecourse during the 90s, I'd guess I know about twenty and most of those have no other source of income. By indirect contact via email or the net, I know another twenty and none of them has any secondary income of the sort you describe. None of those people are what you'd call wealthy, some have been unable to maintain a sufficient income from betting and have returned to other work, most are still going strong. I've no idea how many people in this country now live entirely off the proceeds of gambling, but I'd guess that if you include sports betting and online poker, we're talking hundreds, possibly more than a thousand.

***Hi Alan, I have enjoyed your books and thanks for this interview. Do you have any advice on staking systems?***
Firstly, be consistent - don't bet £5 one day, £100 the next, don't bet £5 on the 10/1 shot and £100 on the evens favourite. Secondly, be realistic - ensure that your level of staking matches your resources. If your betting bank is £1000, then you probably shouldn't be betting more than £50 per bet. If you bet a bigger percentage, you greatly increase the chances of losing the entire bank. I'm not a fan of staking systems as such, where the amount bet is decided by the result of the previous bet (or series of bets), rather than the amount bet being based on the degree of confidence you have in that bet, which could also be called the 'value' you see in the bet. For single win bets I've always used set minimum and maximum bets, where the minimum is set high enough to ensure that you don't bet the minimum just for some action. For lay bets on the exchanges, I use a maximum loss per race, so that even if I lose on several consecutive races, my total loss is contained and the maximum loss figure also discourages me from chasing.

***Do you still think there is still an edge on the all weather tracks as regards speed figures, draw etc. as outlined in your books?***
No, the arrival of Polytrack everywhere barring Southwell has altered the other tracks beyond all recognition. If you watched the film of a meeting from Lingfield in the 90s now, it would look utterly bizarre. I have some old videos of races there and the distances between the horses at the finish, the riding tactics, the pace and the kickback all show how different it is now. In my view, Polytrack is close enough to turf that there is hardly any difference - if they dyed it green, most punters would be far less anti-AW than they are at present! Just like turf, Polytrack promotes a moderate pace, a bunched finish and luck in running. It isn't as good a surface for punters as the old tracks were, and speed figures don't work

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on it in my experience. There are some draw biases still at sprint trips, but they are fairly obvious and the market takes them into account. Southwell remains the exception, but with horses switching from there to Polytrack and back again, there's insufficient consistency to get any benefit from speed figures. The two obvious draw biases at Southwell are to avoid high drawn horses over 5F (those next to the stands rail) and avoid horses drawn one over 7F and 1M. All the evidence points to a build up of loose material close to the rails that make the middle of the course a shade quicker.

# FREE WINE, LUNCH and YANKEES

John F. Jackson

Whether my brother was dropping a subtle hint about the wine I served for Saturday lunch or not I never discovered. He asked whether I knew about the Virgin Wine Club, of which he was a member. Superior quality he thought. I find TESCO "£7.99 reduced to £3.99 with a further 5% reduction for 6 bottles" sauvignon blanc is perfectly fine for my everyday ration. However, interest was doubled when he revealed Virgin's patriotic offer of a free case with each purchased, should England beat South Africa in that weekend's rugby World Cup clash. He liked the idea of £60 worth of wine for nothing ... but had decided not to buy in case England lost (in case, get it? Oh never mind.) South Africa's best price on *Betfair* was 1.45 so I asked "would you buy a case if you were guaranteed a reduction £18?" Yes was the reply. "So back South Africa £40 at 1.45 recouping £18 if they win (but no second case). Should England win receive a second case valued at £60 for the loss of the £40 bet, a £20 gain." This option proved more palatable than the gamble and presumably TESCO vin de table.

## The Problem Posed

At about the same time an email group member asked how he should handle a special offer from a bookmaker: a free yankee if the original yankee ended up with only one winner. The general group advice was to steer away from all such enticements: all bets involving multiples are the work of the devil. Whilst admittedly not without some danger there are methods which will yield a certain return regardless of the results, in just the same way as the wine offer. Rather than plunge in with the full solution I am going to follow Steve Tilley's helpful suggestion and look at a simpler problem to illustrate the necessary techniques...

## The Free Double

Suppose a bookmaker allows a bet of an initial double with the offer a free double should the original only include one winner. If for the sake of argument we use a price of EVENS, or decimal 2.00, for both runners

then we win 3 stakes with two winners and lose a stake for the three outcomes winner/loser, loser/winner and two losers. Assuming further that EVENS is a fair price then all four outcomes are equally likely, having probability 1/4. Our expected return is thus:

$$(1/4)(+3)+(1/4)(-1)+(1/4)(-1)+(1/4)(-1) = 0$$

on the initial bet, with the bonus of a free double after only one winner and the possibility of profit. Just as in our free wine problem we would prefer to win every time, not just when the bonus is up.

## Dynamic Hedging

To begin let us ignore the bonus and try to place hedging bets in addition to the double so that we break even no matter what. The solution can be represented by a binomial tree:
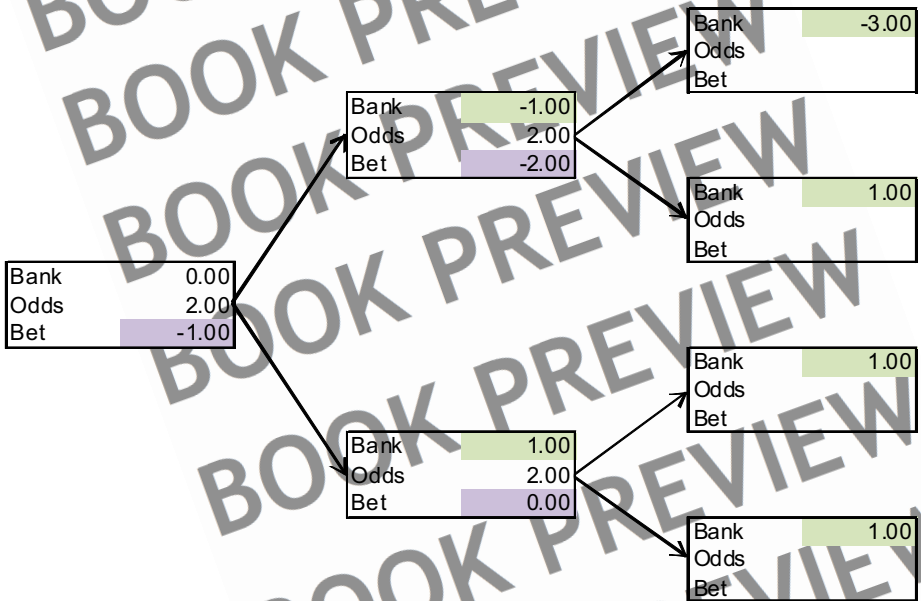
| Bank | -3.00 |
|------|-------|
| Odds | |
| Bet | |

| Bank | -1.00 |
|------|-------|
| Odds | 2.00 |
| Bet | -2.00 |

| Bank | 1.00 |
|------|-------|
| Odds | |
| Bet | |

| Bank | 0.00 |
|------|-------|
| Odds | 2.00 |
| Bet | -1.00 |

| Bank | 1.00 |
|------|-------|
| Odds | |
| Bet | |

| Bank | 1.00 |
|------|-------|
| Odds | 2.00 |
| Bet | 0.00 |

| Bank | 1.00 |
|------|-------|
| Odds | |
| Bet | |

**Fig.1** Breaking Even

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On the extreme left is the first leg of the double, splitting into two branches: up for a win and down for a loss. The initial bank is 0 and we make a bet of -1 i.e. we lay the first runner for a single stake.

Looking at the centre of Fig. 1 we find two possible situations. After an initial winner our hedging bank has reduced to -1. If we lay the second runner for 2 stakes and it wins our cumulative losses will mount to 3 stakes, a bank of -3. However this will be balanced by the winning double which nets 3 stakes, so we end up all-square. If the second runner loses then we recover both the first hedging bet's loss of a stake and the losing stake for the double. Again we end up all-square.

After an initial loss the hedging bet has recovered the cost of the losing double. Our work is done and there is no need for further hedges.

## Dynamic Programming

While this solution for a simple problem can be verified by inspection it has been plucked out of the air and is of no help in solving problems generally. It is an example of *dynamic programming*, a mathematical tool that typically works by stepping back in time. Let us try the problem again starting from the final bet. Suppose the first leg of the double won and we wish to arrange matters to have lost 3 hedging stakes if the second bet wins, and win 1 hedging stake should the last selection lose. Our problem is the top right hand corner of Fig. 1:
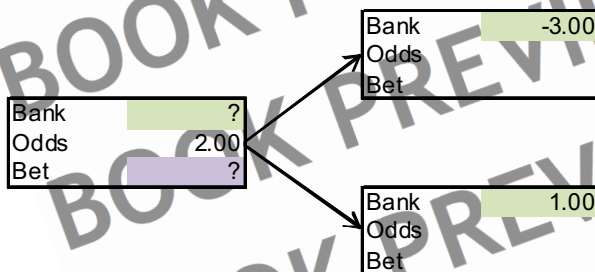


| Bank | -3.00 |
| Odds | |
| Bet | |

| Bank | ? |
| Odds | 2.00 |
| Bet | ? |

| Bank | 1.00 |
| Odds | |
| Bet | |

**Fig. 2** Final bet after a win

So what wager at EVENS would result in a final cumulative hedging loss of 3 stakes with a win, or leave us with a gain of 1 stake for a loss? And what hedging bank would this imply? Well the difference between banks

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of -3 and +1 is 4 stakes. Betting at EVENS means a wager of 2 stakes. It must be a lay for the bank to reduce on a win. The bank midway between -3 and +1 is clearly -1. Double checking: starting from a bank of -1 and laying 2 stakes reduces the bank to -3 for a win and increases it to +1 for a loss. We can thus complete that top right corner:
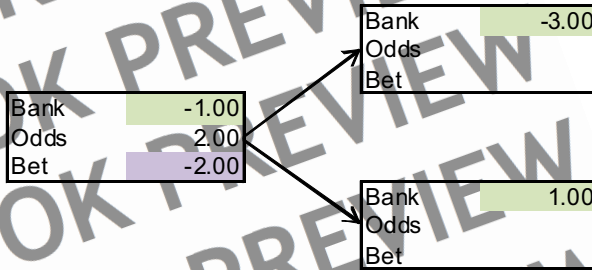


**Fig. 3** Top right solved

The bottom right corner is trivial: we want to end up with a single stake in any event.
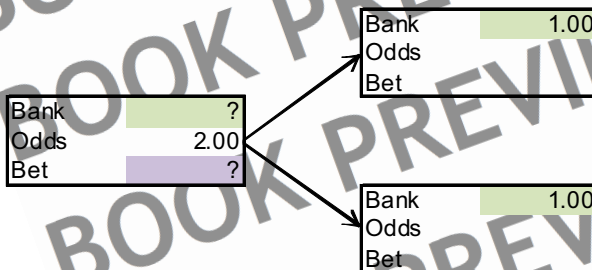


**Fig. 4** Final bet after a loss

This can only be achieved by not betting at all and providing we have the single stake in our bank already.
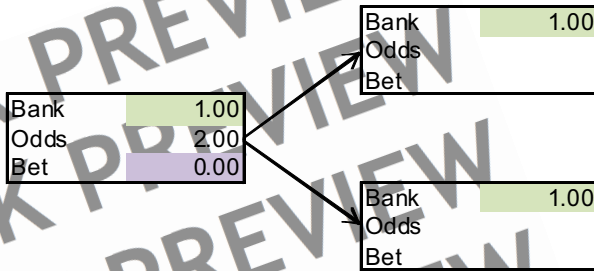
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| Bank | 1.00 |
|------|------|
| Odds | |
| Bet | |

| Bank | 1.00 |
|------|------|
| Odds | 2.00 |
| Bet | 0.00 |

| Bank | 1.00 |
|------|------|
| Odds | |
| Bet | |

**Fig. 5** Bottom right solved

Having solved the final bet we take one step back, here to the start of the problem, but in general the process of stepping back may continue through many stages e.g. when we get to our yankee there will be four steps. At the second step of the double we have to solve:
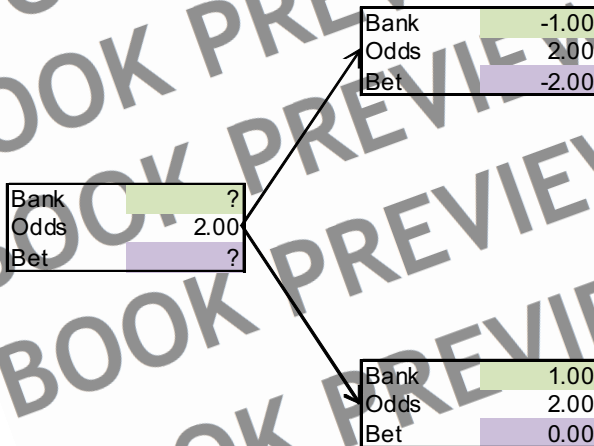
| Bank | -1.00 |
|------|-------|
| Odds | 2.00 |
| Bet | -2.00 |

| Bank | ? |
|------|---|
| Odds | 2.00 |
| Bet | ? |

| Bank | 1.00 |
|------|------|
| Odds | 2.00 |
| Bet | 0.00 |

**Fig. 6** First hedge

Hope you're getting the hang of it now: what bet will lose a stake if the runner wins, win a stake if the runner loses and what bank would be required? The gap is two stakes so at EVENS the bet must be one unit. It must be a lay to lose for a winner. The starting bank must be zero which yields:

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| Bank | -1.00 |
|------|-------|
| Odds | 2.00 |
| Bet | -2.00 |

| Bank | 0.00 |
|------|------|
| Odds | 2.00 |
| Bet | -1.00 |

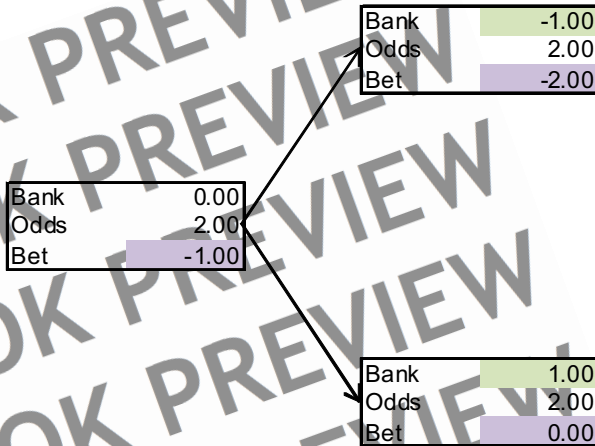| Bank | 1.00 |
|------|------|
| Odds | 2.00 |
| Bet | 0.00 |

**Fig. 7** First hedge solved

The full solution is actually simple to state: lay the first runner for the stake of the double. If this first runner loses then job done. If the first runner wins lay the second for twice the stake of the double. We have achieved what the finance community call 'replication of the underlying asset'. In other words our hedging process returns the exact opposite of the double and we have attained an important objective of locking in our due returns, albeit in this case zero.

## Show Me The Money!

Please study this hedging process and the mechanics of dynamic programming until you achieve some comfort with the technique. It should then become apparent that hedging allows the exponent to alter the shape of returns and that there is a deal of flexibility, always within the limits of due returns, in what the shape might be. To exploit the bookmaker's free double we could hedge as above to break even on the initial double and then enjoy a free bet for those doubles with one winner. Here the returns for the four outcomes of the double are not +3,-1,-1,-1: since the double is free they are +4,0,0,0. If we target our hedge to return -3, 1, 1, 1 we will win 1 stake whatever as follows:
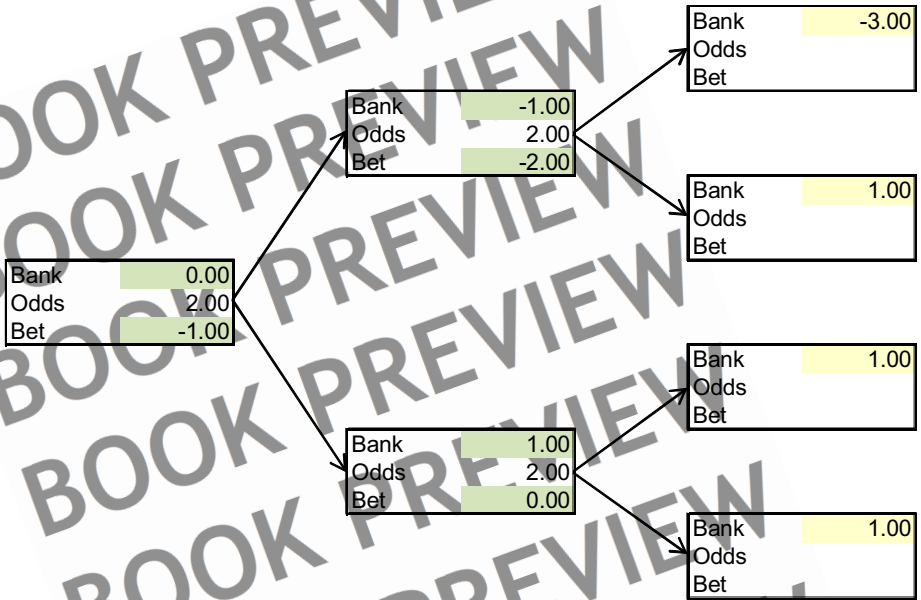
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**Fig. 8** In the money

The hedging strategy is to lay the first runner for a single stake. If it loses then the venture is concluded. If it wins then lay the second runner for 2 stakes. If this wins too then the cumulative hedging losses of 1+2 = 3 are offset by the winning double of 3 stakes for a net profit of 1 stake.

Since we know we can win 1 stake from a free double we can alter our strategy on the initial double by accepting a smaller win amount on those outcomes containing a single winner. One of many possibilities would be:
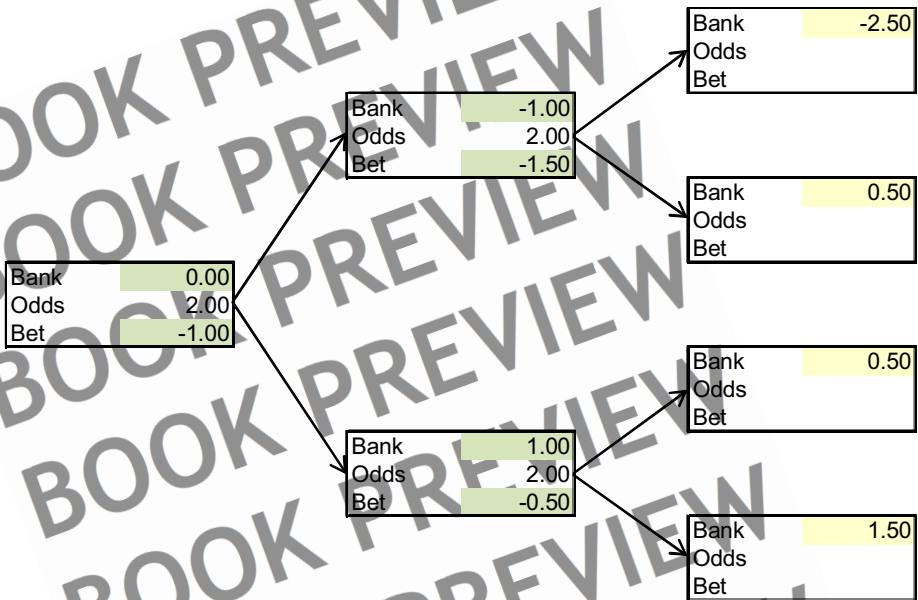
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**Fig. 9** First double strategy

Combined hedging on both the initial double and any available bonus double will generate the following returns:

|  | WW | WL | LW | LL |
|---|---|---|---|---|
| Initial Double | 3.00 | -1.00 | -1.00 | -1.00 |
| Hedge 1 | -2.50 | 0.50 | 0.50 | 1.50 |
| Hedge 2 |  | 1.00 | 1.00 |  |
| **Returns** | **0.50** | **0.50** | **0.50** | **0.50** |

**Fig. 10** Two phase hedging returns

I leave it as an exercise for the reader to find the strategy which will give the same return regardless… but including allowances for commission in the calculation too, especially since more commission is payable if hedging via the free double is exercisable.

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## The Free Yankee

The dynamic program for a yankee is simply more of the same with four steps instead of two. Using prices of EVENS for each runner the top half of the binomial tree looks like this:
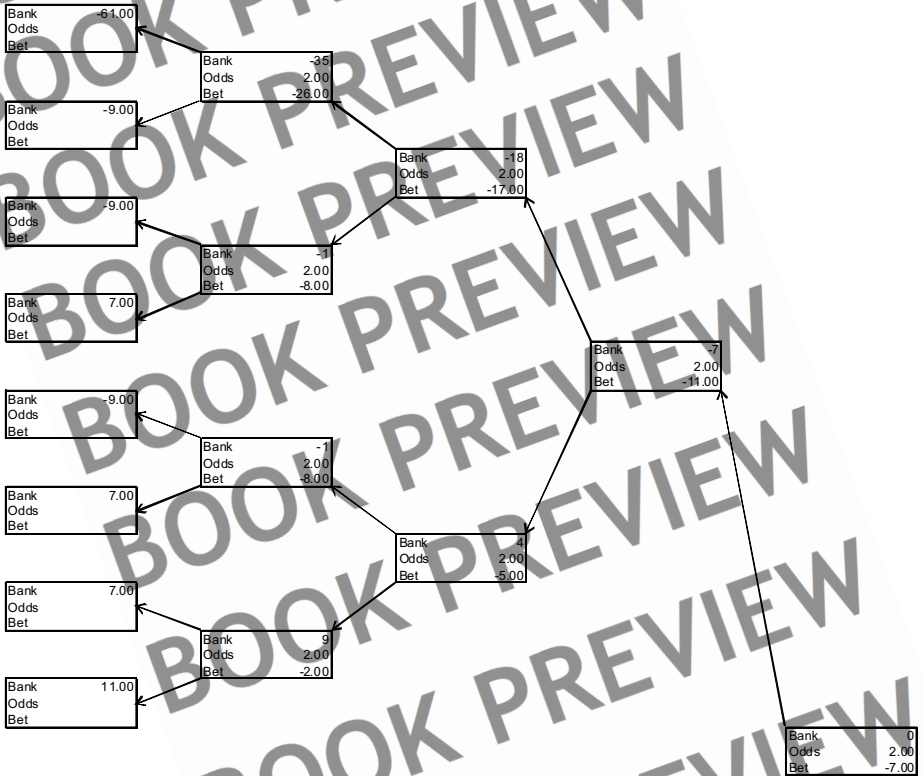


**Fig. 11** Yankee dynamic program (top half)

I have printed it back to front so that you can work through the calculations. We see that the starting hedge is a lay of the first runner for 7 stakes (with the yankee requiring 11 stakes).

Is such a strategy a practical proposition? Well it may be subject to mechanical error... then again I don't think placing four bets on *Betfair* would be too trying. Although the tree is somewhat large any application would never be more than four bets. More critical could be the liquidity of the market for the races involved, the last may call for a lay of 26 stakes. At first sight it might seem that going out on a limb for 61 stakes is not a prospect to relish. Note however that this is equivalent to making a little more than 5 yankee bets. If you made 5 bets could you virtually guarantee to be in profit? I think not, indeed it may take many bets after an initial bad run to recover. Short odds are recommended however: otherwise the numbers will escalate rapidly. The risk of a non-runner, disqualifying the free yankee, is a danger but a revised hedge can limit the loss in the same way that that we managed to break even by mirroring the 'free double' before. Perhaps not something to derive a living from, but worth an experiment if there are no favourable opportunities otherwise. Good practice too for the brain cells and the principles of hedging: there is no better way to learn than with live money and no sharper lesson than making a mistake with the same!

Throughout the whole of this article I have not talked about value, assuming all selections are at true odds. Including value selections would allow one to alter the target profit level. Moreover some profit could be turned from the strategy (courtesy of the free component) providing the bookmaker prices were only slightly unfair (as they are typically at the front of the market). The strategy of picking a near certainty and three no-hopers would fail I think. Selections at 20/1 and upwards are usually such poor value that any gains from the freebie would soon be swallowed up (which is why the offer is there in the first place!).

## Your Experiment Here

Hedging strategies are sufficiently flexible to incorporate many treatments. Indeed I would go so far as to venture that for every freebie offered by a bookmaker there is a theoretically profitable hedging plan. Practical is another question to be answered on a case-by-case basis.

# Statistical Forecasting Models and Football Match Outcomes

## Part I: Introducing Models Based on the Poisson Probability Distribution

Alun Owen

Okay, you're reading this article! So, I will assume therefore, that you have at least a passive interest in statistical models as a tool for forecasting football match outcomes, or you are either interested in using these types of models for betting purposes, or you are in fact interested in developing your own models in this context. Well, I'm an academic statistician, currently researching for a PhD in this area and what I hope to do, over a series of short articles in SmarterSig, is to highlight some of the key published academic research that is in the public domain, which presents details of significant models in this area. In addition, I hope to make this research a little more accessible by attempting to explain some of the key mathematical concepts behind the models presented in that research, and oh yes, I thought I'd tell you a little about my own research along the way.

In this first article, after giving a little background to some of the published research that is out there, I will take a look at the Poisson probability distribution and explain how you can use this as a predictive tool for football match outcomes. I make little assumption about your mathematical ability, apart from the fact that you have at least some degree of numeracy. I guess if you didn't have this you wouldn't be reading this magazine! So whether you know very little or a lot about statistical models and their use in the context of forecasting football match outcomes, hopefully, this article should offer something for everyone.

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**An overview of some of the Published Research**

What do we mean by a statistical forecasting model? Most people will at least be familiar with ratings systems which are in fact a type of statistical model. The idea is that you are using data or other quantitative information, probably on past performances, to effectively 'model' what has happened in the past in order to inform what might happen in the future. In the context of football match outcomes, this typically means collecting information on previous matches to forecast the likelihood of various outcomes occurring in future matches. The type of information we collect may simply be the final results in terms of home win, draw or away win, or the actual final score. However, this information can also include data on other aspects such as shots on target, total number of shots, percentage possession, corners, fouls, etc. The types of outcomes of future matches we might be interested in assessing, could be the probability of a particular score, or the probability of a home win, draw or away win. These models can be used however, to assess probabilities associated with other outcomes, such as the time of the first goal being scored, the total number of goals scored, the number of corners, etc. Given the range of betting opportunities that continue to evolve in the football betting markets, the list of outcomes to consider is considerable.

Much of the published academic research into modeling football match outcomes, has concentrated on the development of models for the number of goals scored. Most of this work is based on the use of probability distributions such as the Poisson distribution or the Negative Binomial distribution. Some of the earliest articles that are still worth reading in this context, are those by Moroney (1956), Colwell and Gillett (1981), Pollard (1985) and Reep et. al. (1971). However, these only looked at modeling the aggregated total number of goals scored by a number of teams over a period of time, usually across an entire league of teams and across a full season. Therefore, as such, they don't describe models that can be used for forecasting the outcomes of future individual matches. However, these articles do demonstrate the use of the Poisson and Negative Binomial probability distributions in the context of data on goals scored in football, and some also attempt to determine which of the two distributions provides the better model for goal data. One of the things I aim to do later in this article is to demonstrate the use of the

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Poisson distribution but in the context of forecasting future individual matches.

One of the first published attempts to develop a statistical model of individual match outcomes was by Maher (1982), who indeed based his model on the Poisson probability distribution. This article is probably only really accessible by the more mathematically minded, and so a much easier to read summary of a very similar model can be found in Lee (1998). Apart from being a more readable article, Lee's work provides a little nostalgia for the older ones amongst us, as he applied the model to results from the English Premier League in 1995/1996, when the likes of Wimbledon and QPR were still there and Newcastle finished second! In order to access the material presented in Lee's article and perhaps also the paper presented by Maher, I think one would benefit from an explanation of how this model works and this is indeed one of the aims of this article.

The model originally described by Maher has since formed the basis for similar models developed by a number of authors, most notably Dixon and Coles (1997), which indeed was one of the first published works that attempted to use the derived model for predictive purposes with applications to football betting. Indeed, Dixon and Coles argued that with an appropriate strategy for choosing bets, it is possible to identify matches where the bookmakers offered odds were in the bettor's favour!

Further developments of Maher's and Dixon and Coles' models have since been published in the academic research literature, and indeed it is in this area that my own as yet unpublished PhD research is currently focused! However, I will leave the details of these developments for perhaps a later article?

Other authors have also considered a different type of models, typically referred to as Probit models, that are quite different to those mentioned earlier that use the Poisson distribution. These Probit models have the advantage that they do not need to assume that the goals scored follow any particular probability distribution, since they do not model goals scored. Instead they model the probability of a home win, draw and away win directly. However, this is perhaps for another day and maybe another

article entirely. Here we concentrate on models based on the Poisson distribution.

## The Poisson Probability Distribution as a tool for Forecasting Football Match Outcomes

We'll illustrate how the Poisson probability distribution can be used in the context of forecasting future football match outcomes, by imagining that we are part way through the coming 2008/2009 season, and Manchester United are due to play at home against newly promoted West Brom. We are interested in assessing the chances of a home win, draw and away win.

Assume that we are able to estimate that if these two teams played each other repeatedly, with Manchester United at home, we expect Manchester United to score an average of $\mu$ goals. We'll take a look at how we can derive this estimated average scoring rate, $\mu$, later!

We can use the Poisson probability distribution to calculate the probability that Manchester United scores, say, $x$ goals as follows:

$$\text{P(Manchester United score } x \text{ goals)} = \frac{\mu^{x} \times e^{-\mu}}{x!}$$

Okay, so for some people this might look a little difficult to comprehend. But if we pick it apart, it basically consists of three parts; $\mu^{x}$, $e^{-\mu}$ and $x!$ We simply multiply the first two parts together and then divide by the third part.

For example, suppose we estimate Manchester United's average scoring rate to be $\mu = \mathbf{2.52}$. We can then use the previous formula to calculate the probability that Manchester United scores, say, $x = \mathbf{2}$ goals, by substituting $\mu = \mathbf{2.52}$ and $x = \mathbf{2}$ into the formula so that we have:

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$$P(\text{Manchester United score } \mathbf{2} \text{ goals}) = \frac{2.52^2 \times e^{-2.52}}{2!}$$

This then consists of three parts $2.52^2$, $e^{-2.52}$ and $2!$

We'll look at how to calculate each of these parts as follows:

The first of these three parts to the formula is $\mathbf{2.52^2}$ which reads as "2.52 raised to the power of 2". This means we need to calculate $2.52^2$, which is 2.52x2.52 which equals **6.3504**

Another way of calculating this is to press the following typical keys[1] on your calculator:

| 2.52 | | $X^n$ | | 2 | | = |

Or alternatively you can use the following Excel formula:

| =2.52^2 |

The second part of the formula is $e^{-2.52}$ which reads as "$e$ raised to the power of minus 2.52". This might look harder to calculate, but $e$ is simply a special number in mathematics like the number $\pi$. The number $e$ is approximately 2.718, but most calculators, as well as Microsoft Excel and lots of other software packages, have the number $e$ in its fixed memory. Hence they have the capacity to raise the number $e$ to whatever power you require.

For example, we can calculate $e^{-2.52}$ by pressing the following typical keys on your calculator:

---

[1] Key labels vary from calculator –t hose indicated here are based on a Casio *fx-83ES*

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$e^x$  -2.52  =
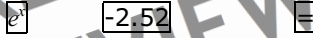
Or alternatively you can use the following Excel formula:

=exp(-2.52)
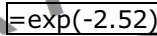
Either way you should get the answer to be **0.0804**

The third and final part of the formula is *2!* which reads as "2 factorial". The easiest way to explain what we mean by a 'factorial' is to give a few examples as follows:

5 factorial = 5x4x3x2x1 = 120

4 factorial = 4x3x2x1 = 24

3 factorial = 3x2x1 = 6

Hence 2 factorial is simply:    2x1 = **2**

You can calculate a factorial on your calculator by pressing the following typical keys:

2    x!    =

Or alternatively you can use the following Excel formula:

=fact(4)
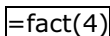
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Putting all these three parts together, we can calculate the probability of Manchester United scoring 2 goals as:

$$P(\text{Manchester United score 2 goals}) = \frac{2.52^2 \times e^{-2.52}}{2!}$$

$$= \frac{6.3504 \times 0.08046}{2}$$

$$= 0.2555$$

In the same way we can calculate the probability that Manchester United scores 0 goals, 1 goal, 3 goals etc. The calculations of these probabilities are given in Table 1 below:

Table 1: Goal Probabilities for Manchester United playing at home versus West Brom

| Goals | $\mu^x$ | $e^{-\mu}$ | $x!$ | Probability ($\mu^x \times e^{-\mu} / x!$) |
|-------|---------|-----------|------|-------------------------------------------|
| 0 | 1 | 0.08046 | 1 | 0.0805 |
| 1 | 2.52 | 0.08046 | 1 | 0.2028 |
| 2 | 6.3504 | 0.08046 | 2 | 0.2555 |
| 3 | 16.00301 | 0.08046 | 6 | 0.2146 |
| 4 | 40.32758 | 0.08046 | 24 | 0.1352 |
| 5+ | | | | 0.1115 |
| Total | | | | 1.000 |

In the same way we can calculate the probability of West Brom scoring any number of goals, whilst playing away against Manchester United. Note that the only difference is that we use West Brom's goal scoring rate in the formula instead of Manchester United's goal scoring rate.

For example suppose we estimate that if West Brom played away to Manchester United repeatedly, we expect West Brom to score an average of $\mu = \mathbf{0.48}$ goals. We simply substitute $\mu = \mathbf{0.48}$ into the formula we looked at earlier instead of $\mu = 2.52$.

The probability then of West Brom scoring 0 goals, say, would be calculated as follows:

$$P(\text{West Brom score 0 goals}) = \frac{0.48^0 \times e^{-0.48}}{0!}$$

Note that $0.48^0 = 1$, since anything raised to the power of zero is equal to one.

Also note that $0! = 1$, since this is how zero factorial is defined.

Hence we have:

$$P(\text{West Brom score 0 goals}) = \frac{1 \times 0.618783}{1}$$

$$= 0.6188$$

Table 2: below shows the calculations of the goal probabilities for against Manchester United, assuming that we have estimated West Brom's average goal scoring rate, playing away against Manchester United, to be 0.48 per match.

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Table 2: Goal Probabilities for West Brom playing away versus Manchester United

| Goals | $\mu^x$ | $e^{-\mu}$ | $x!$ | Probability ($\mu^x \times e^{-\mu} / x!$) |
|-------|---------|------------|------|--------------------------------------------|
| 0 | 1 | 0.618783 | 1 | 0.6188 |
| 1 | 0.48 | 0.618783 | 1 | 0.2970 |
| 2 | 0.2304 | 0.618783 | 2 | 0.0713 |
| 3 | 0.110592 | 0.618783 | 6 | 0.0114 |
| 4 | 0.053084 | 0.618783 | 24 | 0.0014 |
| 5+ | | | | 0.0001 |
| Total | | | | 1.000 |

We can use the probabilities in Tables 1 and 2 to work out the probability of any particular score in this match, by multiplying the appropriate pair of probabilities together. For example, the probability of a 2-0 score would be:

$$P(2\text{-}0) = 0.2555 \times 0.6188$$

$$= 0.1581$$

Table 3 below shows similar probabilities calculated in the same way for the range of possible scores. We can use this table of score probabilities to consider bets on the correct score as well as on the outcome in terms of a home win, draw or away win. For example, the probability for a correct score of 2-0 from Table 3 is 0.1581, which equates to fair odds for this outcome of $(1-0.1581)/0.1581 = 5.33$ and so it would not be beneficial to bet at odds below 5.33 to 1.

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Table 3: Score Probabilities for Manchester United versus West Brom

|  |  | West Brom | | | | | |
|---|---|---|---|---|---|---|---|
|  | Goals | 0 | 1 | 2 | 3 | 4 | 5+ |
| Manchester United | Goals | 0.6188 | 0.2970 | 0.0713 | 0.0114 | 0.0014 | 0.0001 |
|  | 0 | 0.0805 | 0.0498 | 0.0239 | 0.0057 | 0.0009 | 0.0001 | 0.0000 |
|  | 1 | 0.2028 | 0.1255 | 0.0602 | 0.0145 | 0.0023 | 0.0003 | 0.0000 |
|  | 2 | 0.2555 | 0.1581 | 0.0759 | 0.0182 | 0.0029 | 0.0003 | 0.0000 |
|  | 3 | 0.2146 | 0.1328 | 0.0637 | 0.0153 | 0.0024 | 0.0003 | 0.0000 |
|  | 4 | 0.1352 | 0.0837 | 0.0402 | 0.0096 | 0.0015 | 0.0002 | 0.0000 |
|  | 5+ | 0.1115 | 0.0690 | 0.0331 | 0.0079 | 0.0013 | 0.0002 | 0.0000 |

Fair odds on a home win can similarly be determined by totaling all the probabilities from Table 3 for scores which would give a home win (i.e. 1-0, 2-0, 2-1 etc.). These probabilities are highlighted in bold in Table 4 below, and total to 0.8177. Hence fair odds for a home win bet would be (1-0.8177)/0.8177 =0.22, i.e. 0.22 to 1.

Table 4: Score Probabilities Home win for Manchester United v West Brom

|  |  | West Brom | | | | | |
|---|---|---|---|---|---|---|---|
|  | Goals | Probability | 0.6188 | 0.2970 | 0.0713 | 0.0114 | 0.0014 | 0.0001 |
| Manchester United | Goals |  | 0 | 1 | 2 | 3 | 4 | 5+ |
|  | 0 | 0.0805 |  |  |  |  |  |  |
|  | 1 | 0.2028 | **0.1255** |  |  |  |  |  |
|  | 2 | 0.2555 | **0.1581** | **0.0759** |  |  |  |  |
|  | 3 | 0.2146 | **0.1328** | **0.0637** | **0.0153** |  |  |  |
|  | 4 | 0.1352 | **0.0837** | **0.0402** | **0.0096** | **0.0015** |  |  |
|  | 5+ | 0.1115 | **0.0690** | **0.0331** | **0.0079** | **0.0013** | **0.0002** |  |

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Okay, so we now know how to use the Poisson distribution to determine score and match outcome probabilities. That is if we are able to estimate the goal scoring rates for the two teams in each match as well as the home effect. The next question therefore, is how can we estimate the scoring rates of each team and the home effect?

This is where the Model described in Maher (1982) and Lee (1977) comes in! The essence of the model described in those papers, is that each team has an underlying attacking ability and an underlying defensive ability, and it is these abilities that can be estimated using data on past match results. In addition, there is a home effect that can also be estimated. The scoring rate of each team is then related to its attacking ability and the opposition's defensive ability as follows:

If $A_1$ is the attacking ability of the home team, $D_2$ is the defensive ability of the away team and $H$ is the home effect, then in this model, the average goal scoring rate for the home team, $\mu$, is related to these attack and defensive abilities and the home effect as follows:

$$\mu = A_1 \times D_2 \times H.$$

For example, suppose using data on past results, we have estimated the attacking ability of Manchester United to be to be $A_1 = \mathbf{1.4}$, the defensive ability of West Brom to be $D_2 = \mathbf{1.2}$ and the home effect to be $H = \mathbf{1.5}$, the average goal scoring rate for Manchester United is then calculated as:

$$\mu = A_1 \times D_2 \times H.$$

$$= 1.4 \times 1.2 \times 1.5$$

$$= 2.52$$

This means that we can model the number of goals scored by Manchester United, playing at home against West Brom, using a Poisson probability distribution with an average scoring rate of 2.52, which indeed is what we did earlier!

Similarly, if $A_2$ is the attacking ability of the away team and $D_1$ is the defensive ability of the home team, then in this model, the average goal

scoring rate for the away team, $\mu$, is related to these attack and defensive abilities as follows:

$$\mu = A_2 \times D_1$$

Note that we do not have the home effect in this part of the model, since we are modeling the goals scored by the away team!

For example, suppose using data on past results, we have estimated the attacking ability of West Brom (as the away team) to be to be $A_2$ **= 0.6** and the defensive ability of Manchester United (as the home team) to be $D_1$ **= 0.8**, the average goal scoring rate for West Brom is then calculated as:

$$\mu = A_2 \times D_1$$

$$= 0.6 \times 0.8$$

$$= 0.48$$

This means that we can model the number of goals scored by West Brom, playing away against Manchester United, using a Poisson probability distribution with an average scoring rate of 0.48, which again is what we did earlier!

Maher, along with other authors, in fact found that the attack and defensive abilities of each team can be assumed to be the same irrespective of whether they play at home or away. These same authors also typically found that the home effect can be assumed to be the same for all teams.

The question then comes as to how can we estimate these attack and defensive abilities for each team as well as the home effect?

Well, there are a number of methods of doing this, but typically it's a case of finding estimates for the attacking and defensive abilities of each team, as well as the home effect, which produces a model that best fits the data. By a model of 'best fit', we typically mean the model that has estimates for the attacking and defensive abilities, and home effect, which would produce a set of score probabilities that best reflects the actual scores across the set of historical match results we are using to

derive our model. This is done typically using techniques such as Maximum Likelihood Estimation (MLE) and Generalized Linear Models (GLMs). Indeed, both Maher and Dixon and Coles use MLE to determine their attacking and defensive abilities and home effect.

Implementing MLE can be done fairly easily using a package such as Excel, but is a little more involved than the kind of maths we have so far looked at in this article, and perhaps we have done enough maths for one day!

Therefore, in a follow up article to this, I aim to show how you can use Excel to implement the MLE approach, to estimate the attacking and defensive abilities and the home effect and hence implement the above model based on the use of the Poisson probability distribution to forecast the probabilities of future match outcomes.

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# PROFITING FROM STAYING 2yos
# IN THE LATTER PART OF THE SEASON

Mark Foley

Most punters shy away from betting on 2yos in the belief that a lack of form lines greatly hinders their chances of picking a winner. However, as we enter the latter months of the season, the reality is that the 2yo races over longer distances can offer a rich seam of betting opportunities.

August sees the 2yos running over 8 furlongs for the first time and historically this is an area where the trends have proven to be strong and there are solid grounds for believing the status quo will be maintained in the immediate future. Why should this be so? There would appear to be three very strong factors influencing the results and they seem unlikely to change in the near future.

## Breeding

The first and perhaps most obvious point to note is that very few 2yos have the stamina to win over what is basically a marathon trip for the youngsters and coming from the right gene pool is almost certainly the most important factor over these longer distances. A Saddlers Wells 2yo has a decent chance of winning over a mile or further, whereas the offspring of Mind Games or Averti would struggle to get to the finishing line in their horseboxes. Many of next year's classic winners will be introduced in these races and as a rule they tend to be won by better class runners, who are often blue bloods or expensive sales purchases.

(All figures relate to the seasons 2000-2007)

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## Progeny results for 2yos over 8f+ (Min 20 runs and 8 wins)

| Sire | Runs | Wins | Win S/R (%) | ROI to SP (%) | P/L to SP | Placed | Placed S/R (%) |
|---|---|---|---|---|---|---|---|
| Sadler's Wells | 188 | 23 | 12.23 | -12.61 | -23.71 | 46 | 27.88 |
| Grand Lodge | 177 | 20 | 11.3 | -34.75 | -61.5 | 28 | 17.83 |
| Barathea | 153 | 24 | 15.69 | 10.89 | 16.66 | 32 | 24.81 |
| Mark of Esteem | 136 | 10 | 7.35 | -53.72 | -73.06 | 30 | 23.81 |
| Alhaarth | 127 | 12 | 9.45 | -27.17 | -34.5 | 31 | 26.96 |
| Marju | 126 | 13 | 10.32 | -31.25 | -39.37 | 26 | 23.01 |
| Vettori | 125 | 8 | 6.4 | -42.2 | -52.75 | 13 | 11.11 |
| Groom Dancer | 123 | 11 | 8.94 | -52.68 | -64.8 | 15 | 13.39 |
| Dr Fong | 122 | 15 | 12.3 | -25.14 | -30.67 | 23 | 21.5 |
| Selkirk | 120 | 18 | 15 | -18.43 | -22.11 | 29 | 28.43 |
| In The Wings | 119 | 24 | 20.17 | 9.85 | 11.72 | 21 | 22.11 |
| Spectrum | 115 | 10 | 8.7 | -51.67 | -59.42 | 20 | 19.05 |
| Montjeu | 114 | 18 | 15.79 | 63.6 | 72.5 | 11 | 11.46 |
| Danehill Dancer | 113 | 18 | 15.93 | 9.54 | 10.78 | 20 | 21.05 |
| Daylami | 104 | 11 | 10.58 | -56.14 | -58.39 | 21 | 22.58 |
| Singspiel | 103 | 10 | 9.71 | -32.67 | -33.65 | 29 | 31.18 |
| Fantastic Light | 102 | 15 | 14.71 | 46.08 | 47 | 12 | 13.79 |
| Inchinor | 99 | 8 | 8.08 | -51.59 | -51.07 | 13 | 14.29 |
| Cape Cross | 94 | 12 | 12.77 | -10.31 | -9.69 | 19 | 23.17 |
| Hernando | 92 | 11 | 11.96 | -1.22 | -1.13 | 20 | 24.69 |
| Rainbow Quest | 89 | 9 | 10.11 | -73.22 | -65.17 | 19 | 23.75 |
| Red Ransom | 88 | 10 | 11.36 | -57.09 | -50.24 | 21 | 26.92 |
| Halling | 87 | 8 | 9.2 | -26.53 | -23.08 | 15 | 18.99 |
| Desert Prince | 85 | 8 | 9.41 | -42.16 | -35.83 | 19 | 24.68 |
| King's Best | 80 | 18 | 22.5 | 12.6 | 10.08 | 10 | 16.13 |
| Danehill | 80 | 16 | 20 | 63.14 | 50.51 | 15 | 23.44 |
| Alzao | 71 | 13 | 18.31 | 31.94 | 22.68 | 14 | 24.14 |
| Diesis | 70 | 10 | 14.29 | -43.57 | -30.5 | 20 | 33.33 |
| Definite Article | 69 | 8 | 11.59 | 16.67 | 11.5 | 9 | 14.75 |
| Zafonic | 67 | 11 | 16.42 | -13.06 | -8.75 | 9 | 16.07 |
| Galileo | 66 | 9 | 13.64 | 10.06 | 6.64 | 11 | 19.3 |
| Kingmambo | 66 | 12 | 18.18 | -26.96 | -17.79 | 20 | 37.04 |
| Bertolini | 63 | 9 | 14.29 | 54.37 | 34.25 | 12 | 22.22 |
| Peintre Celebre | 59 | 9 | 15.25 | -12.74 | -7.52 | 11 | 22 |
| Intikhab | 48 | 9 | 18.75 | 74.48 | 35.75 | 10 | 25.64 |
| Tagula | 43 | 9 | 20.93 | 103.16 | 44.36 | 8 | 23.53 |
| Jade Robbery | 20 | 8 | 40 | 402.95 | 80.59 | 2 | 16.67 |

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### The Trainer

The 2nd point to note is that very few trainers have either the ability or more probably the ammunition to win these races and the races tend to be dominated by the top trainers. Given that the best trainers train the vast majority of the better bred horses this should come as no surprise, however it's worth noting the runners from Terry Mills and Ralph Beckett's stable's, as both trainers have done well in this sphere and their winners often oblige at decent prices.

### Trainers 2yo record over 8f + (min 10 wins)

| Trainer | Runs | Wins | Win S/R (%) | ROI to SP (%) | P/L to SP | Placed | Placed S/R (%) |
|---|---|---|---|---|---|---|---|
| M Johnston | 560 | 92 | 16.43 | -94.31 | -16.84 | 106 | 22.65 |
| M R Channon | 508 | 51 | 10.04 | -147 | -28.94 | 113 | 24.73 |
| R Hannon | 478 | 48 | 10.04 | -123.35 | -25.8 | 106 | 24.65 |
| J L Dunlop | 350 | 41 | 11.71 | -74.02 | -21.15 | 75 | 24.27 |
| J H M Gosden | 323 | 65 | 20.12 | 64.1 | 19.85 | 65 | 25.19 |
| E A L Dunlop | 235 | 20 | 8.51 | -134.14 | -57.08 | 58 | 26.98 |
| P F I Cole | 228 | 31 | 13.6 | -84.45 | -37.04 | 42 | 21.32 |
| B J Meehan | 225 | 24 | 10.67 | -79.49 | -35.33 | 52 | 25.87 |
| Mrs A J Perrett | 212 | 20 | 9.43 | -98.33 | -46.38 | 45 | 23.44 |
| M L W Bell | 199 | 27 | 13.57 | -43.68 | -21.95 | 44 | 25.58 |
| Sir Michael Stoute | 195 | 29 | 14.87 | -68.6 | -35.18 | 50 | 30.12 |
| B W Hills | 178 | 19 | 10.67 | -43.89 | -24.66 | 49 | 30.82 |
| S Kirk | 168 | 19 | 11.31 | -41.55 | -24.73 | 27 | 18.12 |
| M A Jarvis | 167 | 32 | 19.16 | -25.45 | -15.24 | 31 | 22.96 |
| Sir Mark Prescott | 164 | 35 | 21.34 | -21.31 | -13 | 25 | 19.38 |
| J A Osborne | 159 | 18 | 11.32 | -0.27 | -0.17 | 31 | 21.99 |
| R Charlton | 150 | 19 | 12.67 | -70.76 | -47.18 | 30 | 22.9 |
| C E Brittain | 148 | 13 | 8.78 | -12.13 | -8.19 | 31 | 22.96 |
| M H Tompkins | 140 | 15 | 10.71 | 26.2 | 18.72 | 24 | 19.2 |

| | | | | | | |
|---|---|---|---|---|---|---|
| N P Littmoden | 136 | 12 | 8.82 | -6.92 | -5.09 | 18 | 14.52 |
| P C Haslam | 134 | 13 | 9.7 | -42 | -31.34 | 19 | 15.7 |
| N A Callaghan | 132 | 14 | 10.61 | -29.5 | -22.35 | 17 | 14.41 |
| M P Tregoning | 129 | 25 | 19.38 | -11.61 | -9 | 25 | 24.04 |
| K A Ryan | 129 | 12 | 9.3 | -9.51 | -7.37 | 21 | 17.95 |
| Saeed Bin Suroor | 127 | 31 | 24.41 | -13.31 | -10.48 | 36 | 37.5 |
| H R A Cecil | 101 | 24 | 23.76 | 8.09 | 8.01 | 24 | 31.17 |
| G A Butler | 101 | 20 | 19.8 | -36.75 | -36.39 | 24 | 29.63 |
| D R C Elsworth | 99 | 14 | 14.14 | 43.48 | 43.92 | 26 | 30.59 |
| R M Beckett | 80 | 10 | 12.5 | 26.5 | 33.13 | 13 | 18.57 |
| A P Jarvis | 79 | 10 | 12.66 | -0.2 | -0.25 | 15 | 21.74 |
| W J Haggas | 74 | 11 | 14.86 | 52 | 70.27 | 16 | 25.4 |
| P W Chapple-Hyam | 70 | 11 | 15.71 | 63.45 | 90.64 | 10 | 16.95 |
| J Noseda | 60 | 12 | 20 | -3.16 | -5.27 | 15 | 31.25 |
| T G Mills | 57 | 13 | 22.81 | 53.17 | 93.29 | 9 | 20.45 |

## Experience

The final point to note is that experience counts for more over these marathon trips than over shorter distances and approximately 5 out of every six races will be won by runners who have already had the benefit of a run. Excluding nurseries around 2 out of every 3 races are won by runners having their 2nd or 3rd run. The 2yo debutants, who are successful, usually come from a small pool of trainers, with Mark Johnston being to the fore in that group. In the past 3 seasons, only 3 trainers have had at least 1 winning debutant every year over 8f, namely Mark Johnston, John Gosden, and Ralph Beckett. Saeed Bin Suroor, Sir Michael Stoute, Michael Jarvis and Sylvester Kirk have managed the feat in 2 of the past 3 seasons. Brian Meehan had 2 debut winners last year (his first since 2003) and he is a trainer who has a good record with his debutants over 7f and could be worth monitoring this year.

Since the turn of the century 115 of these races have been won by debutants, but only 13 trainers have won 3 or more races with a debutant. With the exception of Sylvester Kirk (3 wins) they read like the

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Who's Who of Newmarket ( strange to use that phrase and then mention Mark Johnston from Yorkshire…?), with John Gosden and Mark Johnston recording 25 wins between them and accounting for almost 1 in every 5 winners. The stats would suggest that if a debutant doesn't come from a top Newmarket yard, then it is unlikely to win on debut and the market proved to be a good barometer. 41 runners went off at less than 2/1 and apart from John Joseph Murphy's Sassy Girl, the 21 winners were all trained by top rank trainers and showed a nominal profit.

Last year was an above average year for the debutants and as the 2yos who manage to win their first race over a mile usually prove to be better class horses (they often make up into 95 + rated horses), it could be worth keeping an eye out for Mukhber, Bright Falcon, Comeback Queen, Cruel Sea, Captain Webb & Wintercast, who have yet to reappear this year.

Interestingly, Saddler's Wells with 9 debut wins over a mile is the only Sire whose progeny have recorded more than 5 debut winners. The progeny of Rainbow Quest, Grand Lodge, In the Wings, Daylami, Danehill and Selkirk in particular, all struggled on their debut runs as juveniles over 8f.

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## Trainers 2yo record on debut over 8f and further: (min 25 runners)

| Trainer | Runs | Wins | Win S/R (%) | ROI to SP (%) | P/L to SP | Placed | Placed S/R (%) |
|---|---|---|---|---|---|---|---|
| M Johnston | 115 | 11 | 9.57 | -41.8 | -48.13 | 18 | 17.31 |
| J H M Gosden | 107 | 14 | 13.08 | 0.9 | 1 | 17 | 18.28 |
| E A L Dunlop | 66 | 3 | 4.55 | -59.0 | -39 | 8 | 12.7 |
| Mrs A J Perrett | 62 | 2 | 3.23 | -74.1 | -46 | 14 | 23.33 |
| M R Channon | 59 | 1 | 1.69 | -89.8 | -53 | 8 | 13.79 |
| Sir Michael Stoute | 56 | 4 | 7.14 | -55.8 | -31.25 | 12 | 23.08 |
| M L W Bell | 56 | 3 | 5.36 | -69.2 | -38.8 | 7 | 13.21 |
| M A Jarvis | 56 | 5 | 8.93 | -49.2 | -27.6 | 8 | 15.69 |
| R Charlton | 51 | 0 | 0 | -100 | -51 | 7 | 13.73 |
| H R A Cecil | 50 | 9 | 18 | -28.1 | -14.08 | 7 | 17.07 |
| Saeed Bin Suroor | 43 | 6 | 13.95 | -47.7 | -20.52 | 11 | 29.73 |
| P F I Cole | 42 | 3 | 7.14 | -63.6 | -26.75 | 8 | 20.51 |
| A P O'Brien | 40 | 7 | 17.5 | 1.1 | 0.46 | 12 | 36.36 |
| J L Dunlop | 39 | 2 | 5.13 | 9.4 | 3.67 | 4 | 10.81 |
| H Morrison | 39 | 0 | 0 | -100 | -39 | 2 | 5.13 |
| R Hannon | 38 | 4 | 10.53 | 42.1 | 16 | 5 | 14.71 |
| A M Balding | 37 | 1 | 2.7 | -64.8 | -24 | 5 | 13.89 |
| M P Tregoning | 36 | 5 | 13.89 | 14.5 | 5.25 | 6 | 19.35 |
| J A Osborne | 30 | 0 | 0 | -100 | -30 | 6 | 20 |
| L M Cumani | 28 | 2 | 7.14 | -41.0 | -11.5 | 2 | 7.69 |
| J R Fanshawe | 28 | 1 | 3.57 | -85.7 | -24 | 6 | 22.22 |
| B J Meehan | 27 | 4 | 14.81 | 120.3 | 32.5 | 5 | 21.74 |

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## Sires 2yo debutants over 8f and further

| Sire | Runs | Wins | Win S/R (%) | ROI to SP (%) | P/L to SP | Place | Placed S/R (%) |
|---|---|---|---|---|---|---|---|
| Sadler's Wells | 88 | 9 | 10.23 | -5.5 | -6.27 | 14 | 17.72 |
| Montjeu | 39 | 4 | 10.26 | 6.5 | 16.67 | 4 | 11.43 |
| Grand Lodge | 39 | 2 | 5.13 | -25.0 | -64.10 | 5 | 13.51 |
| Selkirk | 36 | 1 | 2.78 | -29.0 | -80.56 | 8 | 22.86 |
| Rainbow Quest | 34 | 2 | 5.88 | -28.5 | -83.97 | 5 | 15.63 |
| Barathea | 33 | 3 | 9.09 | -14.5 | -43.94 | 2 | 6.67 |
| In The Wings | 32 | 2 | 6.25 | -13.5 | -42.19 | 3 | 10.00 |
| Groom Dancer | 27 | 0 | 0.00 | -27.0 | -100.0 | 2 | 7.41 |
| Daylami | 26 | 1 | 3.85 | -20.0 | -76.92 | 4 | 16.00 |
| Singspiel | 26 | 4 | 15.38 | 5.7 | 22.03 | 4 | 18.18 |
| Galileo | 26 | 3 | 11.54 | 6.5 | 25.00 | 4 | 17.39 |
| Machiavellian | 24 | 1 | 4.17 | -18.0 | -75.00 | 4 | 17.39 |
| Cape Cross | 24 | 3 | 12.50 | 9.5 | 39.58 | 2 | 9.52 |
| Unfuwain | 24 | 0 | 0.00 | -24.0 | -100.0 | 0 | 0.00 |
| Hernando | 23 | 3 | 13.04 | 1.7 | 7.61 | 3 | 15.00 |
| Mark of Esteem | 22 | 0 | 0.00 | -22.0 | -100.0 | 2 | 9.09 |
| Halling | 21 | 2 | 9.52 | -13.8 | -65.88 | 2 | 10.53 |

## Summary: 2yos over 8f and further

Most winners will be having their 2nd or 3rd run and debutants should be avoided, unless they are from a top yard.
Is the horse bred to win over the distance and do the progeny have a record of winning first time out?
Approximately 2 out of every three races are won by the first 3 in the market and runners priced 7/4 or less on debut have a good record.

# FRONT RUNNING RESEARCH
David Renham

For this article I am going to revisit the whole question of pace or running styles with focus being on front runners. For the last four or five years the question of "pace" in a horse race is something that has become quite a hot topic. In the Racing Post for example, it is not unusual to read such comments as "all the pace is high so I expect high draws to prevail" or "there is plenty of pace in the race, which could set the race up for a finisher"; or "**** is the only confirmed front runner and hence could get a soft lead in front".

Knowing how a race is likely to "pan out" in terms of a "pace angle" can give punters a valuable insight for a variety of reasons:

1.  Some course and distances do strongly favour horses that front run / race up with the pace; likewise there are plenty of others where front runners really struggle. Knowing this information can give you the extra confidence to back a selection, or indeed steer you clear of another.

2.  Knowing how a race is likely to be run in terms of how much pace there is in the race makes it easier to spot horses that may get a soft lead, for example. Horses that get a soft lead have a much better chance of winning as their jockey should be able to set the ideal pace from the front. Conversely you may have a race with 3 or 4 confirmed front runners. In this case, the chances are that the front runners will go off too quickly as they try to dominate each other and hence the race is often set up for a horse coming from off the pace.

3.  In big field straight course handicaps where the field splits into two distinct groups, there is sometimes an 'advantage' to one side in terms of pace. With confirmed front runners or pace setters on one particular side, there is more chance of a truly run race and hence one would expect the side with "better pace" to generally out perform the other. Unfortunately this is not an exact science but it can give you some useful clues.

4.  Front runners over shorter distances tend to trade lower "in running"; likewise hold up horses tend to trade higher "in running". Knowing what running style a horse has can give you an "in running" edge over other traders.

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Therefore, understanding pace / running styles can give you a useful advantage over fellow punters. However, for many, pace / running styles do not enter calculations when having a bet. Hence, for those of us who use this approach, we still should have an edge over the majority.

My theory about pace bias is similar to draw bias – it works best in handicaps and it works best when there are a decent number of runners. Hence for this research I have concentrated on handicaps only with 10 or more runners.

Before moving on to the main focus on this article let me share this information you. To give you some idea how well front runners do at shorter distances, it should be noted that in 10 or more runner handicaps over five furlongs (I assume this addiution is correct after rerading on below?) front runners win around 23% of races - that is nearly 1 race in 4. Hence, if you back in 5f handicaps you must always respect the most likely front runner. Indeed, if you were Mystic Meg and able to predict the front runner before every 5f handicap you would make an absolute fortune by backing all of them! However, this is not possible of course, although with some research you certainly have a good chance of the predicting the front runner in at least 50% of 5f sprints.

Conversely, it should come as no surprise that as the distance increases front runners start to find it harder to make all the running. Indeed over 1m 4f or more in 10 or more runner handicaps, only 9.8% of front runners manage to last home. Now, the main focus of the research for this article is to pinpoint those course and distances where front runners struggle – hence I expected that there would plenty more longer distances than shorter ones! As an "in running" punter as well as a traditional one, this course and distance knowledge would help me in terms of laying poor value front runners.

We have already seen the difference between the winning percentage for front runners at 5f compared to 1m4f or more. Taking all distances into account, front runners win roughly 15% of races in 10 or more runner handicaps. I decided I would look for course and distances where the front runner won less than 7% of the time. In addition, I decided to work out the percentage for the first three home – the idea being that if this figure was surprisingly high, then I would treat the raw win percentage with more caution.

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The list has been compiled in alphabetical order and data is 1997 to today

| Course | Distance | Front runner win% | Front runner 1st, 2nd, 3rd % |
|---|---|---|---|
| Ayr | 1m 1f | 5.9% | 26.5% |
| Ayr | 1m 2f | 4.1% | 20.5% |
| Bath | 1m 2f | 6.1% | 20.4% |
| Beverley | 1m 2f | 6% | 25.8% |
| Brighton | 1m 4f | 6% | 26.5% |
| Carlisle | 7f | 6.4% | 24.4% |
| Catterick | 1m 4f | 5.1% | 25.6% |
| Doncaster | 1m | 3.4% | 16.9% |
| Doncaster | 7f | 6.6% | 15.9% |
| Epsom | 1m 4f | 6.6% | 19.7% |
| Goodwood | 6f | 5.2% | 22.4% |
| Hamilton | 1m 4f & 1m 5f | 5.7% | 19.1% |
| Musselburgh | 2m | 4.4% | 15.2% |
| Newbury | 1m 3f+ | 3.9% | 13.3% |
| Newbury | 5f | 4.3% | 25.5% |
| Newcastle | 1m 2f – 1m 4f | 4.7% | 14.8% |
| Nottingham | 2m | 5.1% | 20.5% |
| Pontefract | 2m 1f | 5.5% | 23.6% |
| Redcar | 1m 1f+ | 2.6% | 19.1% |
| Salisbury | 1m | 5.6% | 21.5% |
| Thirsk | 1m 4f / 2m | 4.3% | 14.9% |
| Thirsk | 1m | 4.5% | 26.5% |
| Warwick | 7f | 4.7% | 28.1% |
| Warwick | 1m 6f+ | 5.4% | 17.9% |
| York | 1m 6f+ | 2.5% | 19% |
| Lingfield aw | 1m 2f | 6.8% | 21.3% |
| Lingfield aw | 1m 4f & 1m 5f | 3.9% | 17.9% |
| Kempton aw | 1m 3f+ | 4% | 16% |
| Southwell aw | 2m | 0.9% | 13.9% |
| Wolves aw | 1m 5f -2m | 5.2% | 16% |

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As you can see I have grouped some distances together as certain courses displayed a similar bias over a particular distance spread. Not surprisingly there is only one 5f course and distance in the list; indeed there are only 5 course and distances that are less than 1 mile. The majority are longer distances as we would have expected.

Southwell on the all weather over 2 miles has been the worst course for front runners with just 1 runner from 108 managing to make all the running! This looks a license to print money from a laying "in running" perspective. One idea would be to wait for the relevant race to start; see how the first half of the race unfolds and then lay the leader (assuming it has led all the way to that point). Now laying is fraught with danger at big prices, but 47 of the front runners at Southwell started 10/1 or shorter. Indeed none of them won so even at a very conservative £2 a lay, you would have made a tidy £94 before commission; at £5 a lay this would have increased to £235 before commission. This laying idea looks to be a valid one here at Southwell, as well as over all the other course and distances in the list. I personally would be looking to lay all front runners after a few furlongs as long as a) they have taken the lead immediately or within the first furlong; b) their price was not too big to begin with; and c) the price had not drifted out considerably from the last show.

Of course when trading "in running" everything moves quite quickly so when a horse takes an early lead, you may not have any idea what price the horse traded at just before the off. To counteract this, you should open a window up on your computer with the betting from a traditional bookmaker. Once the front runner is established you can see what its last price was at the bookies and if you add around 20% that will give you a decent estimate of what price it was on Betfair at the off. From there you can go back to concentrating on the horse / race and the Betfair screen.

One advantage of this strategy of laying front runners is that the horse in question rarely trades too much higher in running that its initial price at the off. In addition, the longer the horse leads, the shorter the price tends to become, so timing the lay is naturally quite important. In long distance flat races you may see little change in price for a considerable time so be prepared for that scenario. Of course in an ideal world we would lay the front runner at the shortest possible price before it starts go backwards. This is impossible however, and if you are too greedy there is a chance you will miss your opportunity as the horse gets passed

earlier than you had expected. Once a leader is passed the price will then often go through the roof and it is not worth laying at huge odds just in case the horse rallies and gets back in front.

If the horse you layed still manages to "make all", then the chances are it would have been layed at a price even shorter than the starting price which will limit any losses in the long run. It is not an exact science, but with practice it is definitely an area where money can be made as we are talking about roughly 1 horse in 20 managing to make all the running at the course and distances highlighted.

Of course, as stated near the beginning, this information is not just for "in running" punters, it can also be utilized in traditional betting. One idea is to try and predict the front runner before the start of the race.

Hence in order to try and predict how the race will be run you could produce individual horse pace figures using the following scoring system:

5 points – for comments like "made all", "made most", "led for 4f", etc.
4 points – for comments like "tracked leader", "prominent", etc.
3 points – for comments like "in touch", "chased leaders", etc.
2 points – for comments like "held up", "midfield", etc.
1 point  – for comments like "behind", "raced in last", etc.

I use the last three races awarding points for each horse, depending on the formbook comments they have earned (see above), and then calculate an average for each horse. For example, a horse that has "held up" in both his last 2 races, but "chased leaders" in the third, would get a pace figure average of 2.33 (2+2+3 =7; then divide by 3).

When you have your set of figures for each horse, you are in a position to try to decide which horses are most likely to lead. Ideally you would have one horse on 5.0 and the remainder under 3.0 – that would usually be a pretty clear cut case, but of course these situations are rare to say the least. Once I have the 3 race pace averages for each horse, I tend to look at the horses that have the highest pace figures in more detail. I look back at their last 10 races to get a better overall "feel" about their running style. That combined with the basic pace figure for each horse usually gives a strong enough indication of which horse is most likely to lead. Of course, you may wish other factors to be taken into account such

as draw position and class of race before deciding upon the most likely front-runner.

Once deciding upon the most likely front runner, or indeed front runners, one option is to then lay the horse or horses before the start. Habitual front runners tend to always try and front run and if they cannot for some reason (usually a quicker front runner), they tend to expend too much energy trying to do so. Hence, I would not worry if there were two or three potential front runners in a race as it should increase the number of solid laying opportunities. The course and distances in the table favour hold up horses and hence horses that race close to the leader tend to struggle also.

If you are not a layer, you may want to consider the following idea. Imagine a 12 runner race where you have pinpointed 3 genuine front runners. You decide to rule all three out as statistically their chances of winning are slim and hence look to back one of the other 9 runners. The chances are that the winner will come from those 9 so you are using your pace and course understanding to narrow down the candidates thus giving yourself a better opportunity of finding a winning bet.

The ideas from this research are not endless, but there are several avenues to explore. Indeed, one such avenue was looking at horses that had won from the front at any of the course and distances in the table. My theory was that if a horse had made all the running, then they must have run incredibly well against a strong negative pace bias. With that being the case, maybe they were worth backing again next time out? The results showed that of the 173 qualifiers, 31 went on to win again next time out – a strike rate of just under 18%. That was extremely positive, and backing all runners would have made a small profit of £582 to £100 level stakes. Clearly not a fortune, but it was pleasing that the idea showed promise. Indeed, I then decided to focus on course and distances where the 1$^{st}$, 2$^{nd}$ and 3$^{rd}$ placed percentage was under 25% - the idea being that I was now focusing on those where front runners fared the worst. The figures now start to look very interesting – 28 wins from 139 runners (SR 20.1%) for a profit of £2607 to £100 level stakes.

My argument would be that this idea of backing past winners could be developed further – for example does it make a difference if you only concentrate on winners that raced at course and distances next time that actually favoured front runners? My gut feeling is that it would improve

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matters further, but that research is for another time. There's only so much time in the day, and only so much you can write in one article!

I hope you have found the article interesting – I certainly have and I will continue to develop my pace / running styles understanding over the coming months.

# THE SPORTS TRADER
Justin Penrose

The original piece was written as an eventual response to a question from a new member of the SmarterSig discussion group. The topic was betting exchanges, and the member observed that he could not see how to take advantage of the user interface on the Internet to make a profit in his betting.

I referred him to the Sports Trader Blog website, where a professional gambler was reporting on his betting activities using an exchange interface. The intention was to illustrate a method that could be used for profitable betting. Several of the discussion group examined the site, but reported that the methodology used by the Sports Trader was not clear from the writing.

I undertook to write up what I saw as his underlying method, and the section starting with "Some Observations and Conclusions" below this foreword is the original piece.

I have now added more segments to round the report, and these start with the section entitled "Sitting on his shoulder".

## The Sports Trader Blog - Some Observations and Conclusions

Please be aware that I have no personal or direct knowledge of what the Sports Trader does, or how he does many things. What I do have is curiosity, and an interest in discovering how he appears to make racing pay. So, what follows is essentially deduced from his blogs, plus some logical extrapolations of what is required to make methods work and produce a profit.

First, the bad news, there is no magic bullet or formula in what the Sports Trader does to make money. Now, the good news - his underlying principle is sound, and in combination with a number of disciplines and techniques, there is a workable method of making racing profitable. It is more of a recipe than a ready made meal.

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Much of what follows will be very familiar to many members. What may not be quite so familiar is the particular way the Sports Trader puts it all together.

At the heart of his approach is the familiar principle of a good stock market trader - "buy low, sell high". If you can do that successfully often enough, you will make money. He has identified a combination of circumstances in racing and the betting exchanges where the opportunities to apply this kind of trading occur often enough to be profitable and justify the effort he puts into it.

He is very picky about races and runners. His ideal race is one which is expected to have a front running horse with an excellent chance of winning. As it happens, this usually means working with low prices. This is not a concern for him, as adjustment for reasonable profitability can always be made with the amount staked.

He places a backing bet after the race has started, and watches for developments. As the race unfolds, one of three possible scenarios (simplified) is likely to emerge:-

1 His selection goes clear reasonably early, and wins comfortably without any real threat from any other runner.

2 The backed horse is part of the pacemaking bunch until the quickening for the run in starts sorting them out.   It's anybody's race until the closing yards.

3 The selection starts well with the rest, but then drops back, and is never in it again.

In case (1), the Sports Trader may place an additional backing bet, adding a few bob to his winnings. In many cases however, he will make a lay. This is insurance against sudden tiredness, going lame, saddle slipping, running off course, or any of the innumerable and unpredictable eventualities that happen in racing. It also reduces his exposure.

In case (2), a lay is almost universal. The main considerations are staking level and price at the time.

Case (3) is a loss, with no choice except to grin and bear it.

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In the real world, of course, a race rarely runs exactly as in the simplified examples above.

So, the Sports Trader will watch the start of a race, to see if his selection has read the script. If it becomes clear that things are not going favourably, the betting action on that race will be aborted. The Sports Trader is not interested in gambling on the race developing in his favour.

The races where anticipated scenarios did not materialise are not written about in the blog. A blog would lose interest if it contained statements like "I fancied The Three Legged Wonder in the next race, but he made a shocking start, almost unsaddling his jockey, and never recovered from that. I did not bet on the race." My feeling is that in fact there are quite a few aborts during a typical day.

Earlier in the topic, Mark posted "I have no idea what his method is other than watching racing keenly and interpreting them skilfully along with as fast as you can get pictures."

In some ways, Mark was absolutely right. However, I think there is considerably more to it than that. A suitable description might be "Whenever his practised eye recognises the creation of an opportunity, the practised course of action is triggered."

John wondered "...or he is just good at race reading?". but
I do not believe he reads a race in the normal sense of race reading. Rather, he is looking for a very specific set of circumstances to come into existence, and whenever and if they do, he executes his plan.

Time for some examples. From his blog, 21 Dec 2006:-

"In this first race the favourite was Stanley George with a starting price of 1.50. I backed him, in running, when clearly in the lead for £186 @ 2.00 then laid it all off @ 1.55, to give me the perfect start to the day and a profit of £83. "

From the race comments afterwards, it would seem that Stanley George made all, and won by 3 lengths from the second finisher, who was making no impression. The rest were never a threat and finished 7 or more lengths behind.

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This race was close to scenario (1) above. It is highly likely that the lay need not have placed. By all accounts, he could have collected the whole £186 profit, yet he still placed the lay.

The profit truth table for the transactions is interesting for a couple of reasons:-

|  | Stake | Odds | Horse | |
|---|---|---|---|---|
|  |  |  | Wins | Loses |
| Back | 186 | 2.00 | +186 | - 186 |
| Lay | 186 | 1.55 | - 102.3 | +186 |
| Net |  |  | + 83.7 | + 0 |

First, after the lay, the Sports Trader could not lose, he could only win (ignoring commission). Secondly, his liability was reduced to the point where no matter what the outcome of the race, his exposure was minimal. Even if a suffragette threw herself under the leading runner, his exposure was not a danger to the bank.

This exposure reduction is a common theme in most of his race betting of this type, and there are a number of other instances of seemingly un-required lays being made. We can speculate about the numerous possibilities of why he chooses this approach. I believe the simplest explanation may be that he has learned over a long period of time that the most profitable long term approach for him was to eliminate the unexpected surprises as far as possible. It provides a comfort zone for his psychological mindset.

Interestingly, the above table could have ended up as follows:-

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|  | Stake | Odds | Horse | |
|---|---|---|---|---|
|  |  |  | **Wins** | **Loses** |
| **Back** | 186 | 2.00 | +186 | - 186 |
| **Lay** | 240 | 1.55 | - 132 | +240 |
| **Net** |  |  | + 54 | + 54 |

In that race, it would have been possible to lock in a guaranteed profit irrespective of the result.

Another example, from the same day:-

"In the 13:10 at Ludlow I started with a small lay of £5 @ 5.00 on the favourite, Kaldouas. I then backed Art Virginia for £135 @ 1.83 when going into the lead with about 4 furlongs left to race. I put up a lay of £60 @ 1.10 on the run in and got matched, to leave me with a profit of £111."

The Art Virginia profit table:-

|  | Stake | Odds | Horse | |
|---|---|---|---|---|
|  |  |  | **Wins** | **Loses** |
| **Back** | 135 | 1.83 | +112 | - 135 |
| **Lay** | 60 | 1.10 | - 6 | + 60 |
| **Net** |  |  | +106 | - 75 |

(decimals omitted for clarity).

Here we have a less clear cut race, and probably more typical of Sports Trader betting races than the first example. From race comments it seems that Art Virginia did get clear, but tired near the end and was being reeled in, managing to pass the post 3 lengths ahead.

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There are a few aspects of this example that cannot be regarded as usual, but there are other characteristics, which are typical of the Sports Trader, approach.

A striking departure from normal in some ways is the lateness of the backing bet. The race was a 2m4f handicap chase, but was already about 80% run when the bet was placed. Another unusual item was backing Art Virginia. The Racing Post had forecast it at 16/1 (8th favourite). Before the race, it was around 25.0 on Betfair, before shortening to 20.0 at the off. After the early stages of the race, the Betfair odds dropped and dropped. Clearly it began forging through the field. However, none of this background concerned the Sports Trader - what he saw was a horse looking good, running well, in front and likely to win. Most importantly, the price still had a way to drop - an opportunity to make money.

Here also he could have locked in a guaranteed profit of £89 or so with a £224 lay instead of the £60. Nevertheless, the £60 lay did reduce his exposure from the initial £135 to £75 for the latter stages of the race.

If one were to draw up a set of rules or guidelines for the Sports Trader strategy, they might look something like this:-

1. Choose your selections and races carefully.
2. Watch, and wait for all the ingredients of an opportunity to come together.
3. If the opportunity does not materialise in all respects, do not bet.
4. Do not chase losses. Forget them, and carry on as normal.
5. Do not have fixed money targets or objectives. A profitable trade is the only target.
6. If you cannot watch the event, do not bet.
7. Always operate in your comfort zone. If things are not right, walk away.

This is speculative, of course, and one might add, modify, or subtract from the set. What I believe underlies it is a rigid and consistent discipline, absolute concentration and focus at the right moments, and an immense amount of practice and preparedness.

The blog also reports betting action on soccer, golf, and snooker.

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## A couple of examples:-

"I turned the golf on as Tiger Woods was 3 shots clear and on the 9th hole. I watched for a while before backing the Tiger for £200 @ 1.20 and then laying off at 1.16 to 1.12. By the 16th hole it was looking like Tiger all the way and I backed him again for £545 @ 1.05, then felt a bit uncomfortable so I commenced laying this off @ 1.03. This left me with a profit on the golf of £27."

"In the UK Snooker Championship final I only had a small trade where I backed Peter Ebdon for £390 @ 1.32 whilst he was 8 -6 up against Stephen Hendry. With Peter well ahead in the frame I commenced laying off with lays at 1.23 for £100 and 1.20 for £105. At this stage Stephen got back to the table and I made a further lay for £185 @ 1.32 to get rid of my liability and leave me with a profit of £23 when Peter eventually won the Championship."

Again, trading and ensuring a profit, rather than waiting for a bet to make a return.

Quote from the blog; 16 Dec 06 - 12:25 at Haydock
"...my favourite types of race to trade where there are not too many runners, a decent amount of prize money up for grabs and decent quality horses competing."

The race was a 2 mile chase with 5 runners, £9395 prize, and a standard time just about on 4 minutes. Not too many runners to bother about, plenty of time to watch and assess the performances, and also plenty of time for bet placement.

## Some statistics:-
### Period 9 Dec 06 to 21 Dec 06.

During the period, the blog reported 23 back and lay bet races. Of these, 16 selections won, 7 lost. Of the 7 losers, 4 returned a profit because of the lay bet, 2 lost money, and one returned zero (backing liability fully offset by lay).

So, 20 of the 23 races were profitable - for an overall gain of £538.

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There were many other bets in that period, including a number on other sports. I have only counted the back/lay pairs on racing. There were also a few back bets where the selection ran clear and a lay was not needed, but I did not count those. There were also quite a few where multiple back and lay bets were made in a single race. In one extreme race a horse was backed or laid a total of seven times in running. No races other than single back and single lay combinations were counted.

An interesting footnote - had the Sports Trader not placed any lay bets in the 23 races, he would have profited to the tune of £1102, but the associated exposure of £2049 would have been way outside his comfort zone.

At a personal level, the Sports Trader approach is not for me. I like the principle of what he does, but do not fancy meeting the absolute prerequisite of watching all the action waiting for the opportunities to be snapped up. It suits his mindset, but not mine.

If anybody does feel like exploring these techniques, I would strongly recommend the following:-

1.  Start with a selection method that is centred about the sharp end of closed races.
2.  Paper and pencil practice until the eye can spot the betting opportunities with some degree of success. Something like 6 columns on a sheet of paper. The first column details the selected runner and race. Column two is for noting the back price if an opportunity occurs. Column 3, used only if column two has a back bet, is for noting the lay bet price. Column 4 is for calculating the potential points to be won or lost. Column 5 records the result - horse won or lost. The last column indicates simply whether a profit could have been made or not.
    The sharp eyed reader will have noted the absence of any mention of staking level in the previous paragraph. This is deliberate - the staking decision is very much secondary and subsidiary to the ability to react promptly and correctly to the current race situation.

3.  Keep practicing until the paper exercises show that the substantial majority of your betting decisions are in your favour.

4. Develop a mindset that does not concern itself too much whether a trade made 5p, £5 or £50 profit - the only thing that counts is that most trades are profitable. Once that level of proficiency is achieved consistently, stakes can be adjusted to whatever rate of return is required.

(I am fairly sure the Sports Trader has already decided on his staking level in his selection preparation session in the morning. I have the feeling he applies some kind of proportionality algorithm related to the risk and the chances of a horse winning. Quite what it is, and how it may be adjusted by the available liquidity at race time is not known. He also has a fairly clear idea of the lay stake amount before the race even starts.)

## Sitting on his shoulder

Although I was fairly clear about his underlying method and its practicability as a profitable approach to betting, I had never used the technique in any previous betting. So, I decided to try it out for myself.

My intention was to observe some races with a video recorder running and try to emulate the Sports Traders bets, so that afterwards I could compare notes with his blog and see whether I had matched or come close to his apparent success.

Unfortunately, that plan was scuppered by the Sports Trader breaking off from the daily blog, and his site remaining inactive for 9 months.

However, there was nothing to prevent me from applying the method myself. So, accordingly, I settled down for a few afternoons when there was racing broadcast on terrestrial TV, and started the video recorder. I also had a computer program running which would record the time of keyboard activity so that the exchange prices could be established at those points.

I watched a dozen flat races. In three of them, a runner caught my attention as becoming a likely winner when second, but beginning to move on the front runner. In two of the three races the selected runner went well clear and was never in danger all the way. In the third race, he

gained couple of lengths, but then started to tire and I recorded a lay bet. In the event he held on to win by half a length.

I found the three winners relatively easy to spot, but all three came to my attention between 4 and 3 furlongs out. I believe with practice it might well be possible to spot likely winners earlier.

I did not actually place bets, but the timing marks I made (as if I were placing bets) showed backing prices just above evens on all three (just above 2.0 in exchange speak). The one potential lay would have been made at 1.3 on the exchange, ensuring a 60% ROI no matter what the result.

**Placing exchange bets**

In the discussion group, an observation was made that what was needed for the Sports Trader approach was fast pictures and fast fingers. The first is certainly true, but the second is not such an absolute requirement as it may seem at first. The reason for this lies in the way the exchange betting is processed on the websites.

For example, Betfair guarantees that every bet will be matched at the best price available at the time of the bet. This means that if a back bet is submitted at a requested price of 2.50 and there is an offer available at 2.80, the bet will be matched at 2.80 to the amount of stake available with that offer.

The minimum back price that can be requested on Betfair is 1.01, and the maximum lay price is 1000.00.

It is quite likely that the Sports Trader prepares a back betting slip on the screen for a £200 stake at 1.01 price and takes the bet through to the confirmation stage where all that is necessary to place the bet is a press of the Enter key. If his fancy looks like it will produce the goods, he hits Enter. This will come back with a matched amount and price. He immediately prepares a lay betting slip for the matched stake amount at a price of 10.00 (say), and takes that through to the confirmation stage. This only takes a few seconds. He then returns his attention to the race, with his finger poised on the Enter button in case a lay bet is needed. If it turns out that a lay is needed a quick glance at the prevailing prices to

ensure that the current lay price is below the back price and Enter is pressed.

Now he cannot lose. He either has a locked in profit, or a free bet on a win. Which it is will depend on the stake amount he specified in the lay bet.

(For newcomers to the exchange screens, the TAB key on the keyboard can be used to move the focus from where you have typed your stake, to leave the focus resting on the 'Place bets' button. All that is needed then to submit the bet is to hit the Enter key. Shift+TAB will move the focus in the reverse direction. On some keyboards, the TAB key may be identified with a pair of arrows facing in opposite directions, left and right.)

Most of his back betting is at low prices in the same range, and the same applies to the lay betting, so he is very familiar with the numbers and price patterns that come up time after time. He really does not need to do any calculations to decide on the lay stake amount for either a locked in profit or a free bet. More importantly, he is not concerned whether he makes £5 or £50 on the trade, as a very high proportion of trades are profitable.

To illustrate this point, let us look at three back and lay pairs in the range that might be regarded as typical for the Sports Trader.

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**A free bet on a win**

| | Stake | Odds | Horse | |
|---|---|---|---|---|
| | | | Wins | Loses |
| Back | 250 | 2.00 | +250 | -250 |
| Lay | 250 | 1.50 | -125 | +250 |
| Net | | | +125 | +0 |

**Locked in profit, no matter what**

| | Stake | Odds | Horse | |
|---|---|---|---|---|
| | | | Wins | Loses |
| Back | 250 | 2.00 | +250 | -250 |
| Lay | 333 | 1.50 | -166 | +333 |
| Net | | | +84 | +83 |

**A free lay bet on a loser**

| | Stake | Odds | Horse | |
|---|---|---|---|---|
| | | | Wins | Loses |
| Back | 250 | 2.00 | +250 | -250 |
| Lay | 500 | 1.50 | -250 | +500 |
| Net | | | +0 | +250 |

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The point here is that after the £250 back bet, any lay bet with a stake between £250 and £500 cannot lose any money, and will in most cases make a profit return.

The Sports Trader will be very familiar with the numbers in this range, and it is probable that he actually does not calculate stake amounts when preparing the lay bet – he just uses a number he knows will work in his favour.

I have a sneaking suspicion that his technique may well have evolved after an extensive study of the way the numbers move on the exchange screens. He spotted that the one area where the price movement is predominantly in one direction is on the leading horse. He decided that the place to trade was there.

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