

CASE Figures

INTRODUCTION:

CASE Figures analyzes historical performances of Thoroughbred horses and uses advanced mathematical modeling techniques to predict their future performance potential in a given race. This method uses expanded performance data to weigh the variance between each horse in a given race instead of just grading them against their historical competition. The top horse is given a predicted score of 100 to correspond with his predicted rank of 1 and all other competing horses are graded off this horse. So, a horse with a predicted score of 99.5 has a 0.5% lower probability of winning than the predicted winner. All handicapping techniques may be affected by unforeseen circumstances like a poor break, traffic etc. Nevertheless, statistical tests have proven that when appropriately applied, *CASE Figures* technology significantly increases the probability of winning exotic bets.

ADVANTAGES:

- Suitable for handicappers of all skill level.
- Ability to predict performance even when horses switch surface, track etc
- No more searching for 'equivalent ratios' to convert rating numbers across different distances, surfaces and race types.
- Mathematically based, absent of human emotional behavior and biases.
- Diversifiable supplement to traditional handicapping techniques.

APPLICATION:

- **Exacta:** Box the top 3 horses for Exacta bets. Adjust for scratches by going to the next available ranked horse. If any horse in the potential box has final odds (within the last 2 minutes) that is 3 times or higher than the lowest odds horse outside the potential box, then replace the higher odds horse with the lower odds horse (odds override, refer example on page 2). Sometimes on the day of the race, ground facts like change in track condition, jockey or works significantly change the public's perception (market perception) of the outcome of the race, something which cannot be captured by mathematical modeling or other conventional speed ratings (analyzing the historical records only). In such a scenario, an odds override helps to capture these extraordinary situations. Statistically, using such odds overrides have shown to improve existing exotics wins by almost 33% (i.e. 31% increases to 40%).
- **Trifecta:** Box the top 4 horses for Trifecta bets. Adjust for scratches by going to the next available ranked horse. If any horse in the potential box has final odds (within the last 2 minutes) that is 3 times or higher than the lowest odds horse outside the potential box, then replace the higher odds horse with the lower odds horse (odds override: refer example on page 2). Sometimes on the day of the race, ground facts like change in track condition, jockey or works significantly change the public's perception (market perception) of the outcome of the race, something which cannot be captured by mathematical modeling or other conventional speed ratings (analyzing the historical records only). In such a scenario, an odds override helps to capture these extraordinary situations. Statistically, using such odds overrides have shown to improve existing exotics wins by almost 22% (i.e. 27% increases to 33%).

e.g. Calder Racecourse, 9th May 2010, Race #2

Predicted Ranking:

PRED RANK	POST	HORSE	SCORE	FINAL ODDS	REMARK
1	8	Taste	100	1.7	Predicted winner
2	5	Atlantic Hurricane	94.7	4.1	
3	2	Lady Charlie	94.5	9.0	
4	3	T. S. Fay	94.1	99.4	
5	4	Mandated to Win	91.9	17	
6	1	Nikki's Wanted Too	91.7	22.4	
7	6	Delightful Nicole	Layoff	41.5	Score = Layoff implies horse hasn't raced in the last 6 months and hence his current athletic potential cannot be judged accurately
8	7	Successful Party	FTS	68.1	Score = FTS implies horse is a first time starter and hence his current athletic potential cannot be judged accurately

Exacta Box:

PRED RANK	POST	HORSE	SCORE	FINAL ODDS
1	8	Taste	100	1.7
2	5	Atlantic Hurricane	94.7	4.1
3	2	Lady Charlie	94.5	9.0

Highest odds inside potential box: 9 (Lady Charlie)

Lowest odds outside potential box: 17 (Mandated to Win)

Since $9 < 3 * 17$, we don't need an odds override

Final exacta box: Taste – Atlantic Hurricane – Lady Charlie

Trifecta Box:

PRED RANK	POST	HORSE	SCORE	FINAL ODDS
1	8	Taste	100	1.7
2	5	Atlantic Hurricane	94.7	4.1
3	2	Lady Charlie	94.5	9.0
4	3	T. S. Fay	94.1	99.4

Highest odds inside potential box: 99.4 (T. S. Fay)

Lowest odds outside potential box: 17 (Mandated to Win)

Since $99.4 > 3 * 17$, we need an odds override

Final Trifecta box: Taste – Atlantic Hurricane – Lady Charlie - Mandated to Win

Bet:

Final Exacta Box			Final Trifecta Box		
PRED RANK	POST	HORSE	PRED RANK	POST	HORSE
1	8	Taste	1	8	Taste
2	5	Atlantic Hurricane	2	5	Atlantic Hurricane
3	2	Lady Charlie	3	2	Lady Charlie
			4	4	Mandated to Win

Actual Results:

PRED RANK	POST	HORSE
1	5	Atlantic Hurricane
2	8	Taste
3	4	Mandated to Win
4	2	Lady Charlie
5	1	Nikki's Wanted Too
6	7	Successful Party
7	3	T. S. Fay
8	6	Delightful Nicole

Performance Analysis:

EXOTIC	RESULT	COST	PAYOUT	ROI%
Exacta	Won	12	39.40	228.3%
Trifecta	Won	48	192.00	300.0%