Football pools offer a case in point. The most sophisticated pools prediction program is Professor Frank George's celebrated F4 Football Forecast, which is available in versions suitable for most popular home computers. Based on ten years of statistical analysis, the program attributes a value to the average performance of each team. When adjusted by weighting for long term form (drawn from the league tables), short term form, and last match result, a comparison of these performance figures enables the program to predict the probable result of a given match.

With Liverpool playing at home to Brighton, the result might be a foregone conclusion, but the program comes into its own when predicting the outcome of a game between more evenly matched teams. This is not to say that this system is a sure-fire winner. Statistical analysis suggests that using Professor George's program approximately trebles the probability of success. 'I concede that the chances against winning are still huge, but surely it is better to gamble as intelligently as you can?' he asks.

Even given this assistance, the odds remain unfavourable. Littlewoods, one of the largest of the pools promoters, say that none of their big prizes has ever been won by anyone who had used a personal computer. 'If there was a system that really worked, we would know about it, and there isn't,' states Littlewoods' spokesman, Tony Hodges. Although entry marking is done using special automatic machines, the company itself use computers only for record keeping.

Horse-racing appears to offer, if anything, even greater scope to the programmer. One Darlington schoolboy has created a home computer program to forecast winners. Originally written for the Sinclair ZX-81, and now upgraded to run on the Spectrum, David Stewart's program has been successful a number of times. Although David's tips are broadcast by several of the BBC local radio stations, he has not amassed a personal fortune.

DAVID W. HAMILTON

Wheeling And Dealing
On a roulette wheel it is the number zero that provides the profit for the casino. Nothing can be done to improve the player's basic odds, so programs devised for such games must concentrate on systems for betting

Perhaps significantly, racing professionals have largely rejected the use of computers. Official handicapping is still done manually by the Jockey Club (although the data is stored on computer). Timeform, the bible of the racegoer, also compiles most of its data manually. 'We only use the computer for calculating the standard time figures for each horse, taking into account wind deflections,' explains the publication's Managing Director, Reginald Griffin. 'There is no such thing as a true computerised handicapping system available anywhere. The problem is that computers simply can't cope with the extraordinary results that crop up every day.'

Pooled Resources
Several packages are available for home computers that claim to improve your chances at winning the pools, and a great many programmers have attempted to write their own. The better ones make use of a vast database of information on previous matches, and can prove valuable in predicting the outcome of marginal matches. As with all forms of Computer Assisted Gambling (CAG) such programs can only increase your chances marginally, and packages thus come complete with disclaimers from the suppliers

Computers are increasingly used on the other side of the betting shop counter, although not for calculating the odds. Staff employed by the large bookmaking chains are trained to use special dedicated calculators for computing the returns on bets. The credit side of the business is becoming increasingly computerised. A punter with an account at one of the chain bookmakers can simply telephone his bet direct to their computer centre. The details are keyed in and the account debited with the value of the bet. If the chosen horse performs as anticipated, the winnings are calculated and credited to the customer's account file.

Most bookies are sceptical of computer systems. 'No one has ever come up with one that wins consistently — or we wouldn't be here' says William Hill's spokesman, Graham Sharpe. Nonetheless, it was his firm that staged one of the most extraordinary and controversial computer simulations of all time. Form details of the classic Derby winners of the past were incorporated into a specially commissioned program. Newspaper readers were then invited to predict the first six. The controversy arose over the placing of the great Italian horse, Ribop, which never lost a race. The computer placed it fourth!

Perhaps the most famous 'gambling' computer of all is ERNIE (Electronic Random Number Indicator Equipment), the machine that picks the winning premium bond prize numbers. It is arguable whether ERNIE is really a computer at