What is a bookie? Many people ask this question and it was indeed one of the first "puzzles" I solved when looking at betting exchanges. Curiously I found no explanations anywhere on the internet or in bookshops. So here is an explanation....

The art of making a book is to 'balance' it so that a profit is made no matter what the outcome. Bookmakers make money by offering odds that are different to the real probabilities in the underlying event. Traditionally all bookmakers offer prices that are overround. By overround we mean that they offer prices for punters to back which exceed the total probability in an event.

For example:-

If we were offering prices for the toss of a coin we know the probability of a head or tail is 50%. Excluding complex variations we know the probability of a head or tail being tossed is 100%. There are no other outcomes to this event.

If we are a bookmaker and want to make money on this event we simply offer up 100% probability at a price higher than 100%. If we offered up a book of 105% we would simply lay heads or tails at 52.5%. This is the equivilant of laying heads and tails at 1.90 (Digital odds). Therefore the punter would back either event at 1.90 and we would guarantee a profit as long as both side of out bet was matched. If both sides of the bet was not matched we would end up paying out a liability on one side and not cover the bet on the other. However as long as our overround is big enough the good and bad days will average each other out over time and in the long term we would make money.

Example:-

Our bookmaker decides to accept betting on an event where there are only two outcomes. He decides to choose the the Oxford and Cambridge boat race.

The bookmaker might open his book by offering odds of 2-1 on Cambridge and 6-4 against

Oxford. By a simple calculation (Two divided by three, the sum of the odds (2+1=3)) we can see that 2-1 on represents a probability of 66.67% and 6-4 against represents 40% (Four over ten).

The probabilities add up to 106.67% The excess of 6.67 over 100 percent is known as the over-round. In short he has sold odds of 106.67% but the outcome can only ever be 100%. There is a 100% chance that one horse or the other will win. (We are talking simplistically here). The bookmaker, if he can take bets in the proportion of the probabilities, say £66.67 on Cambridge and £40 on Oxford, will pay out £100 whichever wins on £106.67 taken, a percentage profit to him of 6.25%.

In practice, of course, the bookmaker will need to adjust his odds in accordance with supply and demand. More money for Oxford than the estimated probability indicates will cause him to shorten the odds against Oxford and lengthen those for Cambridge. The same principle works on the stock market when market makers buy and sell shares on their books at different bid and offer prices.

His final book might look like this :-

Cambridge	Oxford
£50 @ 2-1 on	£40 @ 6-4
£42 @ 4-6 on	£32 @ 5-4
£50 @ 4-5 on	£30 @ Evens

In this example, he began by seriously under-estimating the fancy for Oxford, and has been forced to reduce his odds from 6-4 to evens, at the same time offering better odds for Cambridge. Before adjusting his odds he stood to pay out £100 on Oxford, having taken only £90 in stakes. The odds offered on a horse race with many runners are calculated and adjusted in the same way. The over-round usually increases with the size of the field.

I have found a useful Java applet that will "frame" a market for you. If you enter the odds and the amount you wish to be over or under round this applet will work out the market prices for you. You can find this applet here .

Bookmakers can not win against Betting exchanges

A bookmaker's over round is only a theoretical over round as most of the money they receive is placed on favourites. If a heavy odds on (Less than 2.00 digital odds) favourite loses the bookmakers can rub there hands. However, if a favourite wins then the bookmakers are likely to be out of pocket. Over time we know the odds are created fairly accurately. Therefore if you are a bookmaker you will have periods where lots of favourites win and you will be out of pocket and other times when none win and you start planning the cruise to the Bahamas. Overtime though you will win.

However because of the lack of a balanced book and the likely hood of good and bad runs against your bank balance bookmakers need a wider over round. By doing this they ensure that if there is a bad run they will not go out of business. Because a lot of large bookmakers are listed companies with shareholders they are expected to report a steady earnings stream. If bookmakers changed there odds and reduced the over round to the sort of prices available on Betfair their profit margins would be killed. Also because they can not ensure a balanced book they could have a very bad run against them which could cost them a lot of money at best and at worst, if they didn't limit there exposure, there business. A lot of smaller bookmakers have gone this way.

There has been a lot of publicity about betting exchanges, a lot of it negative, the big bookmakers and people with seeking to protect the current status quo and there interests have been waging a war against the betting exchanges. Here is a typical example: -

"British Horseracing Board chairman Peter Savill agrees that globally racing faces a mounting crisis with the spread of on-line exchanges. 'Betting exchanges have suddenly enfranchised 30 million plus people in Britain to make money out of horses losing a race. When you add to that figure every other person in the world with the desire to make money out of horses in Britain losing races - including, possibly, illegal Far East bookmakers and even organised crime - you have to wonder whether the decision [to allow franchises] was reached after appropriate research.' "

This is simply a stupid and crazy statement, so obvioulsy a red herring to support the failing case of people who oppose exchanges. If you wanted to lose money on horses you have been able to do this for decades. You could approach somebody to the lay the horse. If no one will you lay the horse you simply back all other horses other than the one you want to win in direct proportion to the odds available. If your horse loses you will win on any of the others. Not strictly laying but a modfied form and exactly the same result is ensure as laying. Indeed people have done this for decades so this accusation that exchanges increase the level of corruption in the sport is a null argument. In fact exchanges probably help as they provide a clear audit trail. If you have a wedge of cash on the course that is not possible to trace but placed through an exchange you have a near perfect audit trail.

Pari-mutuel or totalisator system

Look up the definition in a dictionary and the following description appears roughly along these lines - "A system of betting on races whereby the winners divide the total amount bet, after deducting management expenses, in proportion to the sums they have wagered individually."

This system cannot lose, since it operates on the same principle as a lottery, returning to winners a proportion of the total stakes. It is the system used to bet on a lot of horse races in most parts of the world. It was invented in Paris in 1865 by Pierre Oller. In France it is called the pari-mutuel, in English-speaking countries usually the tote, short for totalisator, the equipment used to register and indicate the bets and dividends. The football pools operates on this system.

The only hope for winning any sum of this money on this system is to guess that the betting has been very badly performed by the pool which leaves you margin to gain, even after the pool has subtracted its commission.

The operation of this works as such. Fundamentally all bettors submit their stakes to a pool. When the results are in the company that is running the pool takes a percentage from the pool for running expenses, profit and state taxes.

For Example:-

A British football pool works on a similar basis to the above, but there is a large government tax on the total pool and the pools company takes a further commission to cover expenses and profits of around 30-35%. The share-out for winners is only probably about 30% of the total pool. The odds on the football pools are not great. For a worse example of share out you can look at the ***national lottery***. See my section on winning the lottery for hints as how to improve your chances.