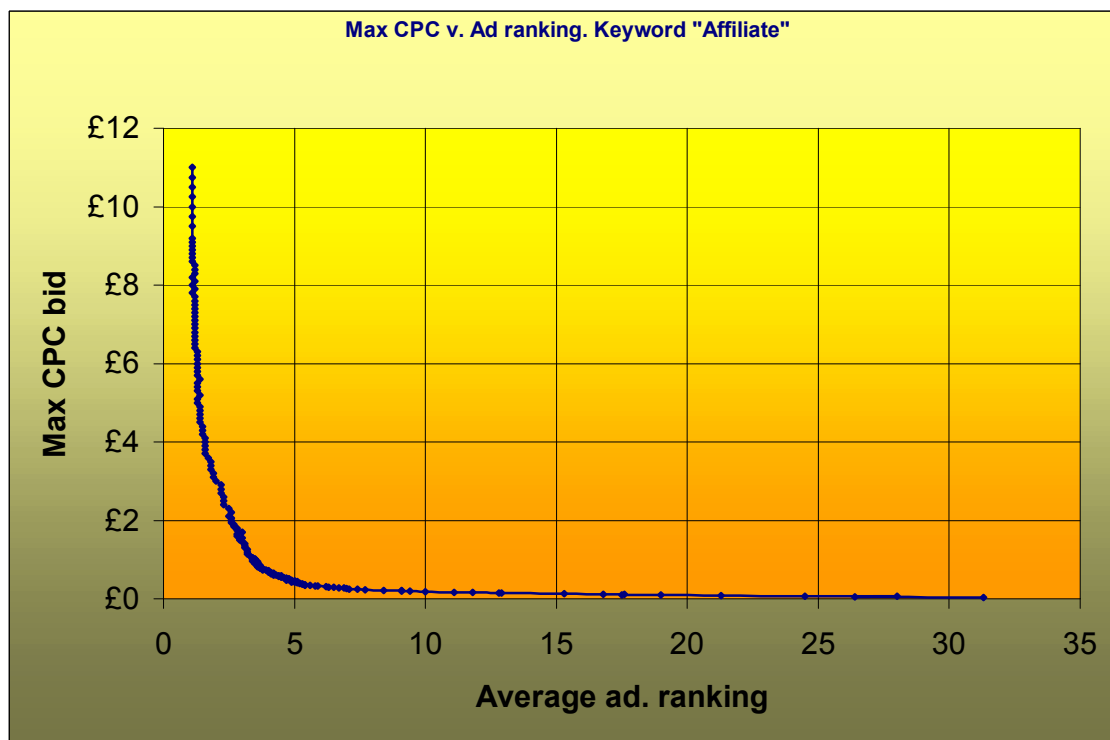


How to exploit AdWords pricing anomalies

When you run AdWords ads on Google you can set a maximum bid price or Cost Per Click (CPC) for the keywords that trigger the display of your ads. The position of your ads on the page when those keywords are entered by a searcher then depends on 3 factors:

1. **Your bid price** – which is the **maximum** you will have to pay per click, although you frequently pay less;
2. The average **click through rate** you have historically been achieving with those ads and keywords – Google’s ranking algorithm **favours successful campaigns** and discriminates negatively against unsuccessful ones;
3. The **number of people bidding** for those keywords and **how much** they are bidding.

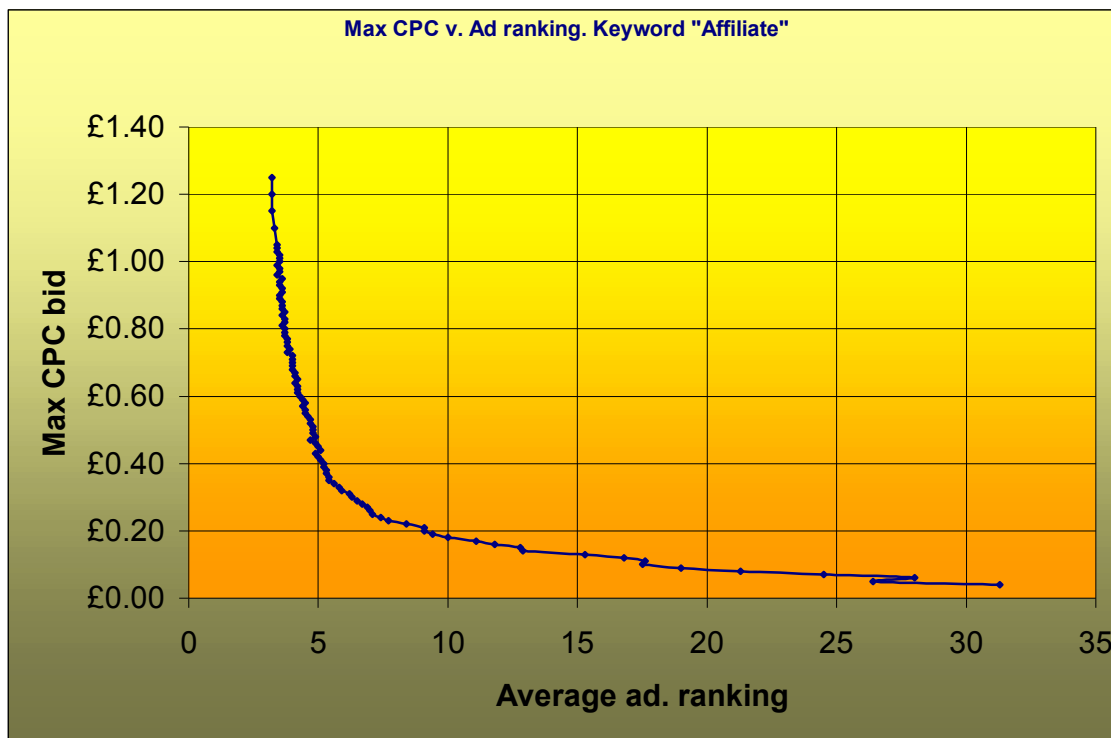
In competitive areas, the problem can be acute not least because Google will only show 8 ads maximum on a page. This means that if your ad ranks 9th, it will appear on page 2 and so your response rate will drop off. Furthermore, slots 1, 2, 3 and 4 are visible on a typical screen **without scrolling** which tends to up their response rates.



This graph shows Google’s ad ranking prediction for the keyword “affiliate” against bid prices ranging from 4p to £11.00. Note the law of diminishing returns applies strongly for rankings in the top 4 or 5 positions: to get from position 5 to position 3 requires a more than doubling of your bid price.

In order to research this area, I used Google’s own tool for estimating the rankings of ads in a hotly competitive area: Affiliate Marketing. I set up the keyword “affiliate” and then tested bid prices from 4p, the minimum bid price Google allows in the UK, right up to £11.00 I then recorded all the estimates Google provided and graphed them in Excel for visual analysis.

The results indicate that the **market for keywords is imperfect** in that there is a smooth reduction in ranking for a reduction in bid price. In a perfect market we would expect there to be a more significant price reduction as the ranking position moved from **8 to 9** because position 9 takes your ad onto the second page of Google. Similarly, we would expect to see a sudden discontinuous price jump from the 5th to the 4th position.



This graph shows a small section of the data so we can see more clearly what is going on. Note the relatively smooth line from position 7 to 9 and 5 to 4. There are also some anomalies around position 26 to 28: some lower bid prices seemed to indicate a higher ranking.

Whilst the graph suggests that you need to pay an infinite price for the 1st position this is clearly not the case and in practice, if Google predicts a position close to 1, such as 1.2, your ad will frequently appear in the first slot.

Commodity Sales or Considered Purchases

So how can you use this information?

It depends how important ranking is in your market. If your products are typically those that are researched with care - “**considered purchases**” - then it probably doesn’t make much difference where you are on the first page because the buyer will want to research everything. In this case being 6th as opposed to 5th probably won’t make much difference to your response rate but it would cut your advertising costs.

If your products are effectively commodities and assessed very rapidly by buyers, you probably need to aim to be in the top 4 positions for your ad to appear without scrolling but moving from 4th to 3rd may not be worthwhile – your click through rate may not rise as fast as your bid price.

Google's ranking algorithm

The situation is rendered much more complicated by Google's ranking algorithm which places the same weight on your **historical click through rate** as on your **bid price**. Bear in mind also that being in top position is not always the best place to be – it can attract click-happy browsers who are not serious buyers.

Google's ranking algorithm is not explained in full on the AdWords website but an outline is:

$$\text{Rank} = \text{CTR} \times \text{Bid}$$

What this means is that if your CTR is **double** that of the person above you and you bid **half** the amount they are bidding, you rank equally. If you bid just 1p above them, you go ahead. Putting some numbers on this we get

**CTR of 2%, Bid price 51p
beats
CTR of 1%, Bid price £1.00**

High CTRs therefore are **doubly advantageous** – you get more clicks and they cost half as much. This is why it pays to fine tune the creative in your ads and why even adding 0.1% to your click through rate can pay disproportionate dividends.

There is another factor too which impacts positively on successful ads: those that appear higher up the rankings tend to get more clicks - even if only marginally. But marginally better performing ads tend to stay highly ranked because they benefit from:

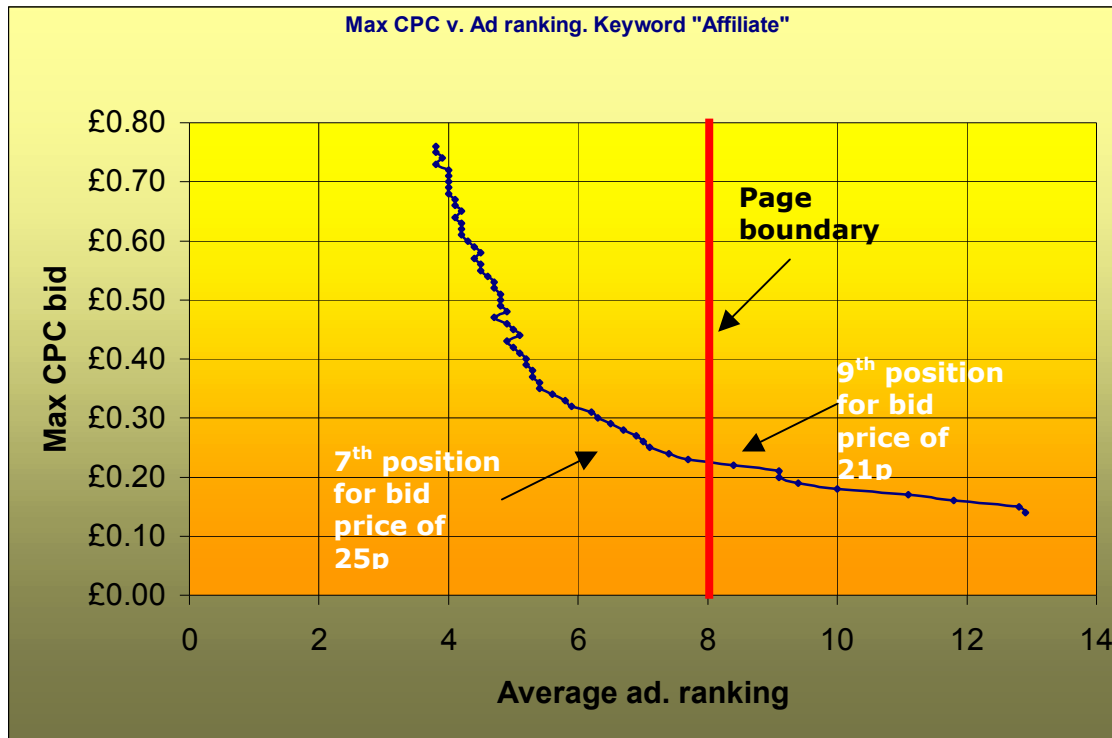
- more clicks (because they rank high),
- higher rank (because they get more clicks).

Each factor feeds positively off the other.

You can sometimes exploit this process by starting off your campaign with a high bid price which will push your ad to the top of the page. This will in turn help you get a high CTR which means you can then lower your bid price without dropping your position. Google will in fact do this automatically for you as part of its real time auction process but you have more control over the situation if you manually adjust your bidding over time – and with manual control you also reduce the risk of paying a rapidly increasing price if new competition suddenly comes into your field.

Going back to the graph we can see that, if we are only achieving a low second page ranking, increasing our bid by just 1 or 2p could produce a significantly increased ranking which will help increase our click through rate – and again, getting in the top 4 slots on page 2 is advantageous because our ads will display without scrolling.

This next graph further expands the curve so we can see exactly what is going on around the crucial 6th to 10th ranked positions. 6th position costs around 32p. 7th around 25p, 8th around 23p and 9th around 21p. You can therefore jump from 2nd to 1st page ranking (9th to 8th position) by bidding only 2p more. Contrast that with having to bid 30p more to move from 5th to 4th position.



Graph shows how moving from page 2 to page 1 costs only 1 or 2p extra on a bid of around 20p

4 caveats

There are four caveats to this analysis. First, the actual price you pay can leap around due to the fact that the pricing system is determined by real time bids. In fact, during the data gathering phase of this research I noted that **even for the same bid price the forecast would change from one moment to another**. This could be due to real time activity between bidders, or to real time changes in the historic click through rates being used by Google to assess ad rankings. It could even be due to a quirk of Google's own algorithm or to some in-built randomisation element designed to stop people reverse-engineering their system.

The second caveat is that, as we have seen, the price you pay will vary according to your click through rate and so you should only use the information Google gives you as an **initial** guide to what you might reasonably expect. The performance of your own ads once they go live may be completely different and a **high click through rate could jump you from page 2 to page 1 whilst resulting in a lowering of the price you actually pay per click.**

The third caveat is that all this data relates to an area where there is fierce competition for keywords. If you operate in a much more exclusive area, the market will be even less perfect which means there could be more significant pricing anomalies. The way to find out is to create your own charts like the ones shown here and spot where small bid price changes can get you large advantages.

The final caveat is that all this data comes from Google's own keyword estimation tool. This is likely to reflect the market quite closely but it isn't the same as the market itself.

Bidding high

If you want to risk bidding high to begin with to drive up your click through rate, don't forget that you will pay highly for the first few clicks until Google has determined that your ads are performing well. Also you can put an overall daily limit on your budget at the campaign level via the AdWords control panel to stop your costs running away.

An effective route is to test various alternative ads first with relatively low-priced bids to find out which copy performs best. Once you've found out which ad is best you then increase the price to ramp up the click through rate before lowering it again once you are achieving a high performance.

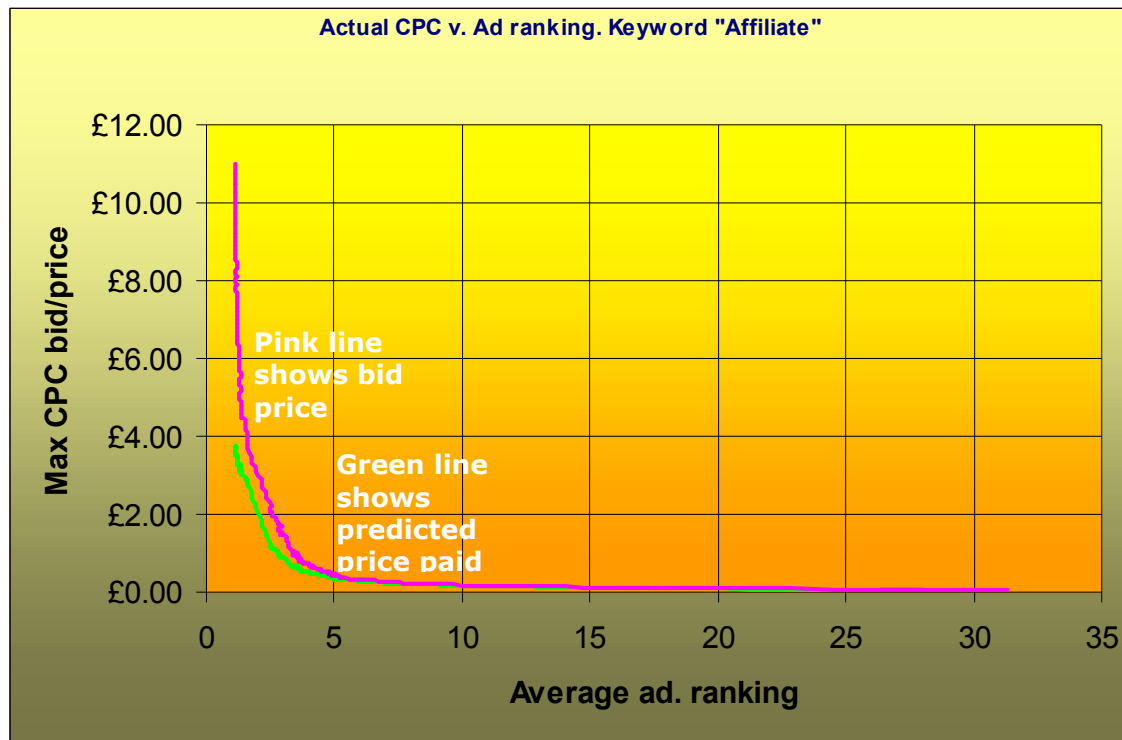
Ad Ranking by actual price paid

Let's now complete our analysis by looking at what Google predicts you will **actually** pay – this is often a lot less than your bid price.

This information might lead you to decide to bid higher in order to get a high rank which in turn will give you a high click through rate which will lower the price you pay – and it **might**. The danger with this is that you can lose control of your expenditure. It may well be that you never pay even close to the price you are prepared to bid – but **you can't stop the price rising dramatically** if you suddenly find that competitors are bidding hard against you. Note also that the difference in bid versus actual price paid becomes negligible as your bid price goes down and response rates drop off.

Why do you often pay less than your bid price?

If we go back to our example earlier you will see that Google only charges you enough to make your CTR x bid price just above that of the advertiser below you. In the case of our example this was 51p.



In this chart the pink line shows your bid price whilst the green line shows the estimated cost you will end up paying. Note that although you may be bidding over £10 for a near certain 1st position, initially Google estimates that you will only pay around £3.80 per click.

Conclusion

To take advantage of pricing anomalies which give disproportionate gain for small increases in bid price you need first to assess how competitive your market is. You can readily do this by entering your search terms and seeing how many ads appear. If it is fewer than 8, you can have the bottom slot for 4p anyway. Whatever market you are in, it pays to find out the shape of the curve by plotting it in Excel – it can reveal some useful cost-benefit information. You don't need to plot every single price to assess the overall shape of the graph so the process doesn't need to be onerous.

The critical areas are the 4th and 8th ranking position: 4th because it will get your ad seen without scrolling, 8th because it will keep your ad on page 1. If you can beat 8th position without paying much more than the 9th position costs, it's probably going to be worth your while bidding a little bit extra for it.

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About the author

William Charlwood lives in Wiltshire, UK and consults to businesses on internet marketing techniques to help them get new customers without spending much money.