Productivity Commission. Monday 4th January 2010

Hello,

I have read details about the current on-going enquiry into gambling and, in particular, poker machines. It seems to me that one important aspect has been ignored: being the programming of these machines.

I once worked for the Bureau of Statistics, so I have a keen appreciation of statistics, and spent many years as a computer programmer, so I also have a keen understanding of programming. And, finally, I regret to confess, I have fed quite a lot of money into poker machines – so I also have considerable experience as to their behaviour.

At one time poker machines were mechanical and there was no secret at all about how they worked. An examination of the mechanics of a machine immediately revealed all there was to know about how it worked – and the probability of any particular outcome. Significantly – every "play" invoked exactly the same profile of probabilities as to the outcome.

Now the machines have a computer inside, and the situation has changed. But it seems that not so many people understand how it has changed.

It is now possible to set a "return percentage" parameter. If, for example, this is set to 95% then – over a lengthy period – it can be rather safely presumed that of every one dollar fed into the machine – 95 cents will be returned to the player. This situation is auditable and I have no reason to presume that this is not a fact. But it is usually presumed that the "probability profile" (as determined by the "return percentage" parameter) remains the same from play to play – just as it was with mechanical machines. In my experience – that is NOT the case.

The machine manufacturer cannot (legally) change the "return parameter". But the law does not in any way at all constrain the way the machine is programmed otherwise. So, since the return factor is fixed – what can they do to improve the return (profit)? They can do two things: (1) entice the player to play longer (and thus gamble more money), and (2) entice the player to increase the bet (and thus gamble more money). In my experience the programming of the machines includes both of these techniques.

Enticing a Player to Play Longer

Here are the ways this is done:

1. If a player has had a win of some substance, they will often "play down" to a particular value. If the credit is $55.90, for example, they will often say to themselves that they will continue playing – but not go below $50.00. What happens very often (FAR more often than "random statistics" would cause) is that the machine will pay almost nothing until the credit is just above $50. It will then start paying frequent

small pays – suggesting that "maybe big things are coming". Also – if the player DOES play under $50, the machine will frequently pay a "reward" pay immediately.

2. If a machine has been paying poorly for a long period a player will obviously consider withdrawing their remaining money and moving-on. To counter this a machine will sometimes pay a very large pay on the very last play. Although this doesn't happen often – the pay is very large – so large that the player will get a big "buzz" and in the future will be inclined to play their credit right down to the end "in case" the machine pays a "final play bonus".

Enticing a Player to Increase Their Bet

Here are the ways this is done:

1. If a player starts-off playing the maximum bet ($10) – the machine will sometimes pay a large pay immediately – and/or play a feature. Although this pay will seem "very large" – the magnitude is mainly as a result of the high bet. It may be a pay of $300, for example, which is "big" – but it is actually only 30 times the bet, so it isn't as big as it may seem. But the important point is that the player feels "rewarded" for playing a high bet – and there is a fair chance that they will continue – or that they will start-off with a high bet in the future.

2. If a player plays for a lengthy period with a "smallish" bet – and then increases it (especially if it is increased to the maximum bet) – the machine will often pay a large pay and/or a feature – as a "reward" for increasing the bet.

At a particular club that I frequented almost daily, I was well-known to the staff. I liked to play a particular $1 machine. A supervisor had a quiet word with me one night – telling me that the machine next to the one I was playing was "ready to go off". I did not like the machine he was talking about and (politely) ignored him. Over a couple of days he persisted. He insisted that it REALLY was "ready to go off". Then, one night, someone else was playing the machine I liked – so I started playing the one the supervisor suggested. Within 30 minutes the machine had paid me $10,600. Of course I was pleased with the win – but I was quite astonished that the supervisor was able to determine that the chances were very high that the machine was about to pay big. Obviously he was able to see from the audit counters that the machine had significantly "underpaid" recently – meaning that it was "saving up" to make a large pay. If the staff can determine this there is obviously a significant opportunity for this information to be given to friends.

I believe that this programming aspect of poker machines should be considered by the Productivity Commission.

Regards,
Ron Hunt.