Productivity Commission
Draft Report Hearing on
Australia's Gambling Industries
Canberra, 20 August 1999

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General Comment

The Commission is to be congratulated on the high quality of this Report. The analysis is clear and at times innovative. The Report is informative and takes significantly forward our knowledge of these industries (and their consequences).

In this submission, we seek to present some preliminary views on matters central to the Report. We would seek the opportunity from the Commission

- to progress these views through interaction with the Commission's staff and

- to make a further submission at the Commission's Hearing in Adelaide in September.

Costs and Benefits of the Gambling Industries

In its Key Findings (p. xii), the Commission noted:

> Quantification of the costs and benefits of the gambling industries is hazardous. The Commission's rough estimates of the quantifiable benefits and costs yielded a range of net benefits from as low as $150 million to as high as $5.2 billion annually.

We believe that the Commission should emphasise the words "hazardous" and "rough".

Appendices C and J to the Report contain the detailed analyses underpinning the range of net benefits "roughly estimated" by the Commission. These analyses are clearly, even innovatively, done. But the net benefits "roughly estimated" rest, nonetheless, on estimates of the "price elasticity of gambling" that the Commission acknowledges are extremely scarce, especially in Australia. These estimates are presented in Table C.1.

As the Commission said (p. C.5):

> While there is some variability in the estimates of the price elasticity of gambling, most studies indicate that the demand for gambling is quite sensitive to changes in price.

Similarly, the Commission noted evidence by the CIE for Aristocrat (p.C.6) that:

> …a consensus estimate from these studies seems to be around -1.7 for gambling as a whole…

which is a quite high elasticity of demand.

But, despite these results, the Commission (p. C.5):

> finds it difficult to believe that they are providing an accurate picture of the price sensitivity of demand for gambling.

In its modelling, the CIE, for Aristocrat, used a range of price elasticities from -0.3 to -1.7 (p. C.6). In its Report, the Commission used a more restricted range, from - 0.5 to -1.3 (pp.C.12-13).

Consistent with the ideas of "addictive" and "compulsive" gambling behaviour by "problem gamblers", the Commission also assumed that the price elasticity for problem gamblers is less than that for non-problem gamblers. The overall (average) price elasticity is, therefore, a combination of an above average price elasticity for non-problem gamblers and a below average price elasticity for problem gamblers. It is reasonable to suppose that the difference between these two price elasticities could be quite large, encapsulating high responsiveness to changes in the odds of winning among non-problem gamblers, on the one hand, and low responsiveness to changes in the odds of winning among problem gamblers, on the other.

In Table C.5 (p. C.13), the Commission presents two sets of estimates of consumer surplus. The first set is called "high elasticity", and presents estimates based on elasticities of -1.3 for non-problem gamblers and -1.0 for problem gamblers. The second set is called "low elasticity", and presents estimates based on elasticities of -0.8 for non-problem gamblers and -0.5 for problem gamblers. Clearly, other estimates of consumer surplus are possible depending on the assumptions that are made about the average elasticity of demand for gambling and the difference in elasticities between non-problem and problem gamblers that give rise to this average.

There is no very strong reason to restrict the potential range of elasticities to that adopted by the Commission. For example, as noted earlier, the CIE's submission for Aristocrat (a major player in the gambling industry) used a range from –0.3 to –1.7. The lower elasticity was regarded by CIE as consistent with elasticities for products like tobacco, whose demand is inelastic (because of its addictive attributes, in our judgement). The higher elasticity is a consensus estimate from a number of studies reviewed by CIE.

Let us suppose that the elasticity of demand for non-problem gamblers is –1.7. In addition, let us assume that the CIE's lower bound elasticity of –0.3 is adopted for problem gambling. We have estimated the results in terms of consumer surplus figures as presented in Table C.5. These results are presented below:

	High/low elasticity
Spend by non-problem gamblers	7001
Non-problem gamblers consumer surplus	2041
Spend by problem gamblers	3790
Apparent surplus from problem gamblers	5143
Tax revenue	3833
Total benefit if all gamblers are 'rational'	11017
Spend if problem gamblers consume at the rate of non-problem regular gamblers	401
Surplus on problem gamblers reduced spend	118
Loss on excess spend of problem gamblers	(997)
Net loss for problem gamblers	(879)
Adjusted consumer surplus	4995

If this estimate is combined with the Commission's "high" estimate of the total private and social costs of problem gambling of $5210 million (Table J.6, p. J.29), the annual net **cost** of the gambling industries to the Australian community can be estimated as **$215 million** ($4995 million - $5210 million).

This is an important result. It demonstrates that using the Commission's own methodology, together with the CIE's assumptions about elasticities (in its work for Aristocrat), the gambling industries *could* be imposing a net *cost* on the Australian community.

In a state of quantitative knowledge about the elasticities of demand for gambling that the Commission has itself characterised as "hazardous" and "rough", it is hard to believe that the alternative estimate of the net benefit of the gambling industries produced above can be regarded as less plausible than the estimates presented in the Commission's Draft Report.

There are some disturbing features about these calculations using the Commission's methodology and the CIE's assumptions. For example, the "value" that problem gamblers get from an "excess spend" of $3389 million ($3790 million - $401 million) compared with non-problem gamblers is estimated to be $2793 million ($3790 million - $997 million). This hardly seems plausible in terms of ordinary usage of language. While it might be plausible to suppose that problem gamblers get *some* "kick" out of spending more than a non-problem gambler would, it is hard to believe that this value could be nearly ¾ of their "excess spend". It is also hard to understand why the "value" that problem gamblers get from such an "excess spend" should increase massively compared with the "low elasticity" scenario in Table C.5, where the "value" is only $1672 million. What this says is that as the elasticity of demand falls for problem gamblers (ie, as they become even more addicted and unresponsive to price changes) the "value" they get from spending excessively on gambling compared with non-problem gamblers becomes greater. It is hard to understand the commonsense in

such a result in the context of concepts like "excess spend" on gambling. In what sense can "excess spending" yield benefits that approach the value of the dollars spent?

The Commission itself is concerned about this point. In its Draft Report it says (p. 5.15):

> The Commission considers that, on balance, its estimate of the *lack* of value-for-money on the high level of spending by problem gamblers is *conservative*. Problem gamblers are spending (losing) $3,8 billion annually on gambling in Australia, an estimated average of $11800 each. Problem gamblers are each presumed to be getting an average benefit (in the form of entertainment or enjoyment) of some $6000 to $8000 each year out of the $11800 that they spend. There are many who would consider this to be quite high given the circumstances of most problem gamblers. (italics added)

We also understand from preliminary discussions with Commission staff that a further problem from assigning low elasticities of demand to problem gamblers is that the problem gamblers' budget constraint can be violated as a result, ie the problem gamblers go broke. But this result seems to be one of the all-too-frequent consequences of problem gambling: the gamblers do go bankrupt and beg, borrow or steal large sums of money to fund their expenditure, long after their own resources have been exhausted. *Prima facie*, a low elasticity of demand for problem gamblers would seem supported by the evidence, therefore.

In our opinion, further thought needs to be given to the consumer surplus analysis to sort out all of the implications so that counterintuitive results are either eliminated or explained. The treatment of the problem by the Commission seems to be intuitively plausible - even analytically creative. But has the numerical modelling of this intuitively plausible approach effectively captured the common sense of the approach, or are some modifications warranted? We would appreciate an opportunity to interact with the Commission's staff in thinking about this issue.

It is evident, then, from the example presented, that not only could the gambling industries impose an annual *cost* on the Australian community, but that that annual cost *could*, potentially, be sizeable.

The truth is that a range of net benefits from substantially positive to substantially negative are all plausible, and it is not possible to know at this stage which situation actually confronts us.

We would ask the Commission, on the present evidence, to accept in its final Report that these industries *could* be having a sizeable detrimental economic effect on the Australian people. The present finding, by suggesting that *only* positive net benefits are likely to accrue, is misleading.

The outcome *could* be adverse — and the Commission should say so.