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# 19 The taxation of gambling

## Box 19.1 Key messages

- The gambling industries in Australia are subject to a wide range of state and territory taxes, as well as licence fees and a range of levies.
- Revenue from gambling has almost doubled in the last 10 years, to \$3.8 billion in 1997-98, and now averages about 12 per cent of state own-tax revenue:
  - the increase is almost entirely due to the expansion in the number of gaming machine and casino licences.
- Gambling is taxed more highly than most activities, and lotteries are particularly highly taxed.
- To the extent that the demand for gambling is relatively insensitive to its price, the excess burden of existing taxes on recreational gamblers may not be particularly high. With the possible exception of lotteries, reducing taxes on gambling may thus not yield significant gains in efficiency.
- In the face of remaining government restrictions on gambling, high taxes also have a role to play in appropriating for the community the excess profits that would otherwise go to gambling operators.
- High taxes can impact adversely on existing problem gamblers, but lowering taxes could serve to encourage increased gambling activity by people who are at risk of becoming problem gamblers. *Overall, taxes are not an effective instrument for managing problem gambling.*
- Gambling taxes are regressive, particularly for lotteries and gaming machines. But consideration of lower taxes on equity grounds would need to take account of the available options for raising other taxes, some of which are also regressive.
- There are both efficiency and equity grounds for experimenting with lower lottery taxes.
- While the levels of other gambling taxes are unlikely to be optimal, on the basis of available information there is not a strong or unambiguous case for general reductions.

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## 19.1 Introduction

The taxation of gambling is primarily undertaken by state and territory governments. Government revenue from gambling is collected via direct taxes, licence fees, mandatory contributions to specific community programs or funds, and where governments own the gambling provider (such as TABs and lotteries) revenue may be obtained by the distribution of profits. While the specific arrangements differ, broad levels of taxation are similar between jurisdictions.

Gambling has expanded rapidly over the last decade as a result of deregulation, notably the legalisation of casinos and the expansion of gaming machines. State and territory government revenue from gambling has risen, from a low of 8 per cent of own-source tax revenue in 1988-89 to 12 per cent in 1997-98.

Government revenue from gambling averaged 34 per cent of the money spent by consumers on gambling products in 1997-98. However, different gambling forms are taxed at different rates. The share of consumer spending going to government revenue (including taxes, licence fees and other charges) is 82 per cent for lotteries/lotto, 34 per cent for wagering, 30 per cent for gaming machines and 21 per cent for gambling at casinos (table 19.6 on page 12).

The following sections examine the structure of taxes in more detail, followed by a discussion of whether the levels of gambling taxes are appropriate.

Tax arrangements and levels also differ between different providers of the same form of gambling, the most notable being the concessional tax arrangements provided for clubs. This issue is examined in chapter 21.

## 19.2 The changing pattern of gambling tax revenue

State and territory revenue from gambling has risen rapidly over the last decade, increasing, in real terms, from \$2 billion in 1987-88 to \$3.8 billion in 1997-98.

- All of this growth in revenue has come from the expansion of gaming, notably gaming machines and gambling in casinos.
- Revenues from traditional forms of gambling — wagering and lotteries/lotto — have been broadly unchanged in real terms over the period (table 19.1).

The importance of gaming machines as a growing source of revenue is even more pronounced than is indicated in the table, as an estimated 46 per cent of the governments' revenue from gambling in casinos is derived from gaming machines in those venues.

**Table 19.1 Gambling revenue has grown quickly<sup>a</sup>**

Real revenue from gambling (1997-98 dollars) and per cent of total revenue from gambling: All states and territories (1987-88 to 1997-98)

Year	Wagering		Lotteries and pools		Casino gaming		Gaming machines		Other gaming		Total
	\$m	%	\$m	%	\$m	%	\$m	%	\$m	%	\$m
1987-88	678	35.0	816	41.5	78	4.0	377	19.2	16	0.8	1 964
1988-89	711	35.9	780	39.4	92	4.6	382	19.3	16	0.8	1 981
1989-90	728	33.5	814	37.4	86	4.0	376	17.3	16	0.7	2 174
1990-91	713	32.3	938	42.5	109	4.9	431	19.5	19	0.9	2 209
1991-92	704	31.3	976	43.4	110	4.9	440	19.6	20	0.9	2 250
1992-93	723	29.7	955	39.2	129	5.3	607	24.9	20	0.8	2 434
1993-94	726	26.5	981	35.8	164	6.0	853	31.1	18	0.7	2 743
1994-95	677	22.3	994	32.8	238	7.8	1115	36.7	16	0.5	3 040
1995-96	635	19.4	982	29.9	355	10.8	1290	39.3	15	0.5	3 281
1996-97	616	18.0	956	27.9	391	11.4	1451	42.4	12	0.4	3 426
1997-98	575	15.0	1,004	26.2	460	12.0	1786	46.6	9	0.2	3 833

<sup>a</sup> Revenue includes taxes, licence fees and other levies paid to the government by gambling operators

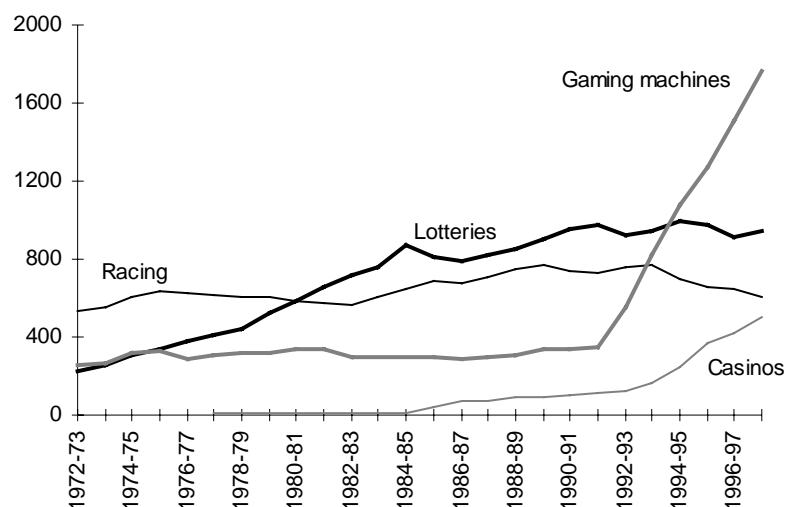
Source: Tasmanian Gaming Commission (1999).

The composition of gambling revenues has been changing over a much longer period as well (figure 19.1).

- During the 1970s, wagering was the predominant source of gambling tax revenues.
- By the early 1980s, the rapid growth of expenditure on lotteries had displaced wagering as the major revenue source.
- The growth in lottery revenues peaked in the mid 1980s, growing much more slowly during the rest of the 1980s and into the 1990s.
- Revenue from gaming machines took off in the early 1990s, and revenue from casinos later in the decade, displacing lotteries as the principle revenue source by 1993-94.
- While the revenue from wagering grew very slowly over the period, it did not decline in real terms until the mid 1990s, following the introduction of gaming machines and casino gambling.

**Figure 19.1 New forms of gambling provide revenue growth**

Total state and territory revenue from different forms of gambling: 1972-73 to 1997-98 (1997-98 dollars million)



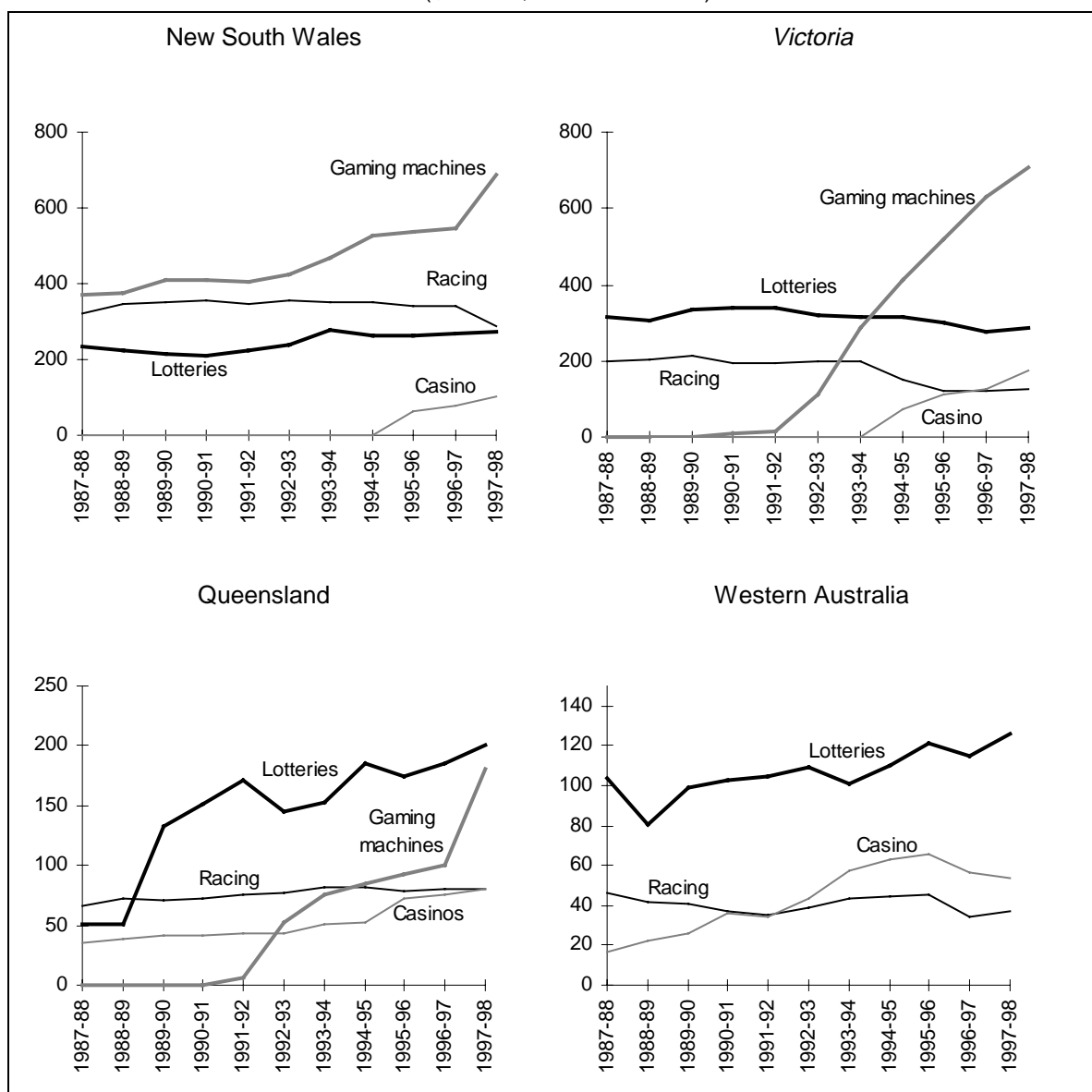
*Data source:* ABS (1998c and earlier issues); and PC estimates.

The aggregate data masks some variation in the composition of gambling revenue among jurisdictions (figure 19.2). Notable features are:

- the rapid rise in gaming machines as a source of revenue, with the commencement of growth in each jurisdiction determined by the differing dates of liberalisation;
- that Western Australia is the only state which continues to prohibit gaming machines outside of the casino;
- that even in states such as New South Wales where access has been liberalised for some time, revenues from gaming machines grew rapidly in real terms;
- while revenue from other forms of gambling appears to have stabilised, revenues from gaming machines remains on a steep growth path in all jurisdictions (other than Western Australia); and
- the decline in revenues from the casino in the ACT coincides with the opening of the Star City casino in Sydney.

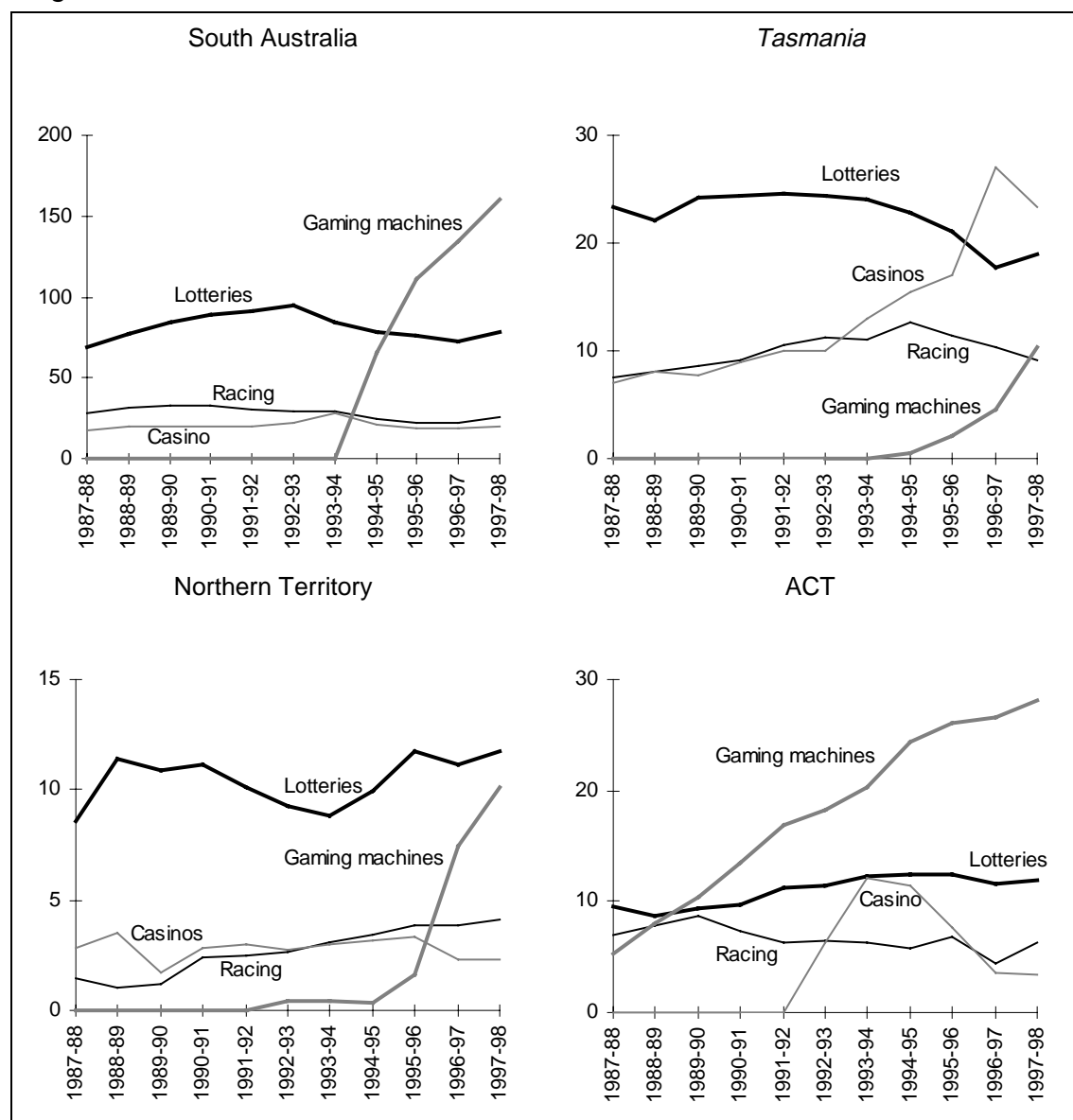
**Figure 19.2 Gaming machines dominate revenue growth in most jurisdictions**

Gambling taxation revenue in each state and territory by major type of gambling, 1987-88 to 1997-98 (\$ million, 1997-98 dollars)



(Continued)

Figure 19.2 **continued**



Source: Tasmanian Gaming Commission (1999).

## 19.3 The importance of gambling taxes in state and territory revenues

As a proportion of state and territory own-tax revenues, gambling revenues declined in most jurisdictions in the 1980s. This was due to a rapid rise in non-gambling own-source revenue rather than any decline in the revenue from gambling. Revenues from traditional forms of gambling — lotteries and wagering — still increased in real terms over this period (figure 19.1), but this growth was slow compared to the rate of increase in revenue from other sources. The licensing of casinos and introduction of gaming machines in many states has led to a significant

growth in gambling revenues in the 1990s, and a rise in gambling as a share of state and territory own-source revenue (table 19.2). Western Australia is the last state with significant restrictions on gaming machines, and this is reflected in the low share of revenue from gambling from that state.

**Table 19.2 Gambling taxes are a significant share of state tax revenue<sup>a</sup>**

Gambling tax revenue as a percentage of total own-tax revenue

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Average</i>
1975-76	12.8	9.4	6.7	6.4	5.1	6.0	na	na	9.8
1980-81	13.6	10.3	6.1	5.6	6.8	9.2	na	na	10.5
1985-86	11.6	9.1	10.1	5.8	7.6	9.6	na	na	7.9
1990-91	9.7	9.1	11.1	7.7	9.5	8.1	6.9	9.3	9.4
1991-92	9.4	8.5	10.3	6.6	8.8	7.7	7.2	4.3	8.9
1992-93	10.2	9.6	11.9	6.7	8.2	8.3	8.8	3.9	9.7
1993-94	10.1	10.7	12.8	6.4	7.8	8.1	9.7	4.3	10.0
1994-95	10.6	12.2	13.5	7.0	10.0	8.5	10.1	6.0	11.0
1995-96	11.0	12.6	13.1	7.4	11.5	8.8	10.1	8.4	11.4
1996-97	10.2	13.0	12.8	6.4	13.0	9.8	8.6	9.4	11.2
1997-98	10.4	15.2	12.5	5.7	13.8	10.3	8.3	9.6	11.7

<sup>a</sup> Figures for 1997-98 are preliminary; Tax includes licence fees and charges

Source: ABS (1998e and earlier issues), Alchin (1989).

The recent expansion of state gambling tax revenues also reflects a rise in tax revenue per adult resident.

- In the past, New South Wales residents paid higher gambling taxes per adult than residents of other states. However, by 1995-96, Victoria had overtaken New South Wales.
- Currently, Victoria, New South Wales and South Australia lead other states in the gambling tax revenue collected per resident. In 1997-98 Victoria collected \$375 per person in gambling taxes, compared with a low of \$130 per person collected in Western Australia (table 19.3).

However, given that not every person over the age of 18 years gambles, this underestimates the tax collected from the average gambling consumer (to some extent, this effect is offset by gambling revenues obtained from interstate and overseas visitors to the jurisdiction in question, which have not been identified separately).

**Table 19.3 Gambling taxes per adult are rising<sup>a</sup>**

Average gambling taxes per adult resident, 1991-92 to 1997-98, (1997-98 dollars per person)

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Average</i>
1991-92	218	176	159	122	146	143	174	71	177
1992-93	228	201	184	121	138	140	211	71	192
1993-94	241	249	208	131	139	144	244	89	214
1994-95	251	286	225	146	180	158	256	134	235
1995-96	261	315	220	152	212	164	239	194	249
1996-97	261	338	223	132	247	182	223	233	256
1997-98	285	375	216	130	279	191	218	258	275

<sup>a</sup> Tax includes licence fees and charges

Source: ABS (1998e), 1997-98, Tasmanian Gaming Commission (1999)

Differences in the gambling tax revenue per adult between the states and territories are largely the result of different levels of expenditure on gambling in each jurisdiction (table 19.4). There are also differences in the share of expenditure that each jurisdiction takes as revenue which contribute to the variability in gambling revenue (table 19.6).

**Table 19.4 Gambling spending per adult varies greatly across states**

Expenditure on gambling per adult, \$, 1997-98

<i>Gambling form</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Average</i>
Wagering	134.5	124.9	113.3	111.9	92.9	90.4	91.4	223.7	121.7
Lotteries/lotto	77.3	86.2	103.3	125.3	67.8	54.4	67.5	117.3	87.7
Gaming machines	636.0	493.1	239.6	-	351.4	68.0	555.3	153.0	424.1
Casino	94.9	214.0	186.6	270.8	67.8	217.4	75.5	367.6	161.4
Other	20.5	2.7	51.6	19.5	37.4	77.8	7.9	-	24.0
Total	963.2	921.0	694.3	527.5	617.2	507.7	797.6	861.5	818.8

Source: Tasmanian Gaming Commission (1999).

## 19.4 The role of Commonwealth/State financial arrangements

Considerable comment has been made about the financial pressures on state and territory governments to exploit the revenue raising potential of gambling. The Western Australian Government commented:

... it seems certain that the revenue motive would have played a bigger role [than the desire to regulate gambling for the public good] in the more recent rapid expansion of



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legalised gambling in most parts of Australia (in the last 10 - 20 years), due to: the States' excessive reliance on Commonwealth grants (commonly known as Vertical Fiscal Imbalance or VFI) and substantial cuts in those grants: and very limited own source revenue raising options for the States (sub. 76, p. 39).

The Western Australian Government also said that:

... 20 years ago the Commonwealth returned 34% of its taxes as grants to the States. By 1988/89 this had fallen to 24% and this year it is expected to be only 21%. This has placed considerable pressure on State budgets;

... increased gambling opportunities and associated taxes are a relatively "easy" option (to the extent that gambling is "voluntary") to fill the funding gap for growth in demand for essential services.

This increasing reliance on state and territory own-source revenue was also noted in a review of the taxation of gambling in Australia by Smith (1998). She commented (p. 13):

However, with relatively generous Commonwealth grants during the 1970s, states had eroded their major tax bases by granting various concessions and exemptions, notably land and payroll taxes, and abolishing estate and gift duties. They were thus forced to respond to heavy cutbacks under the Hawke and Keating governments by raising revenues from their remaining increasingly inequitable, narrow and distorting taxes, including on gambling. State and local government own-source taxes increased from around 20% of national taxation in the 1970s and 1980s to around 24% by 1996-97.

The mechanism by which the distribution of funding between the states and territories is calculated reinforces the pressure to collect gambling revenue. States and territories that do not fully exploit their capacity to raise taxes from gambling are 'penalised' to the extent that the recommended levels of Commonwealth funding are calculated on the basis of their *capacity* to raise revenue (including from gambling) rather than the actual revenue raised.

In other words, once a form of revenue-raising becomes widespread and contributes significantly to the revenue base of some jurisdictions, the revenue raised becomes the benchmark, and the capacity to raise that revenue is taken into account when estimating the need for Commonwealth funding in jurisdictions with lower gambling revenue.

While this approach is soundly based on the need to ensure that individual states and territories do not transfer the cost of funding their services to other jurisdictions (by failing to raise their own taxes and then relying on top-up from the Commonwealth), it also has the effect of placing pressure on those not collecting gambling taxes to do so.

In calculating recommended levels of transfers from the Commonwealth to the states and territories, the Commonwealth Grants Commission calculates each state's:

- *index of revenue raising capacity* — to indicate their potential to raise revenue through gambling tax — which is based on the level of household disposable income in each state; and
- *index of the revenue raising effort* — to indicate how intensively (the severity of taxation or charges) the states are using their revenue bases (table 19.5).

A state with relatively high incomes will have a high capacity index. If it applied low taxes to gambling relative to the Australian average, or restricted some gambling forms, it would have a relatively low effort index. By contrast, if it taxed or promoted gambling more heavily than other states, it would have a high effort ratio. In general, the capacity of a state is determined by circumstances outside government control, whereas 'effort' is mostly determined by government decisions.<sup>1</sup>

**Table 19.5 Some states have greater capacity to raise gambling taxes  
some use their capacity more intensively**

Indices of revenue raising capacity and effort, gambling taxes, 1997-98

<i>State or Territory</i>	<i>Capacity<sup>a</sup></i>	<i>Effort<sup>b</sup></i>
New South Wales	104.10	99.52
Victoria	102.05	133.94
Queensland	94.10	82.70
Western Australia	96.11	59.53
South Australia	96.72	93.18
Tasmania	90.12	82.47
Australian Capital Territory	112.55	66.37
Northern Territory	86.88	87.44
Average	100.00	100.00

<sup>a</sup> Indicates the ability of a state to raise revenue relative to the Australian average. It is broadly based on each state's average household disposable income.

<sup>b</sup> Indicates the intensity (the severity of taxation or charges) of use of a revenue base made by individual states to raise revenue relative to the Australian average effort.

Source: CGC (1999, vol. II, pp. 134-5).

According to the way revenue raising capacity is measured, the ACT, Victoria and New South Wales were better placed to raise revenue through gambling taxes than

<sup>1</sup> Effort is not wholly determined by government decisions. For instance, in the ACT gambling is taxed at similar rates to other states and there are no greater restrictions on forms of gambling than in other states (ie government effort seems to be similar to other states). Yet it appears that ACT residents choose not to gamble as much as other states so the measured effort ratio appears to be low.

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other jurisdictions in 1997-98. This is because their adjusted household disposable income per capita exceeded the Australian average (CGC 1999, vol. II, p. 210).

Victoria and, to some extent, New South Wales have used their gambling tax bases more intensively than have other states and territories. The lower gambling revenue raised in most of the other states and territories can be attributed to:

- the absence of poker machines in clubs and hotels in Western Australia;
- below standard revenues from lotteries, wagering and the casino in the ACT;
- below standard wagering turnover in South Australia and the Northern Territory; and
- a declining trend in the revenue from wagering and lotteries in Tasmania (and Tasmania only began the phased introduction of poker machines in clubs and hotels in January 1997).

## **19.5 Differences in revenue collected between types of gambling**

In 1997-98, Australians spent (lost) \$11.3 billion on various forms of gambling. In the same year, state and territory governments collected \$3.8 billion in revenue — one third of the amount spent — in gambling taxes, licence fees and other charges.

The share of gambling expenditure appropriated by government varies widely for different forms of gambling. For example, in 1997-98, government revenue averaged <sup>2</sup>:

- 82 per cent of expenditure on lotteries, lotto and pools;
- 34 per cent of expenditure on wagering;
- 30 per cent of expenditure on gaming machines; and
- 21 per cent of gambling expenditure in casinos.

This mirrors the pattern in the individual states and territories (table 19.6).

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<sup>2</sup> It is conventional to express gambling tax rates as a percentage of post-tax expenditure (tax as a proportion of expenditure). However, often indirect tax rates are expressed as a percentage of pre-tax expenditure (this is the tax paid as a proportion of expenditure less tax). For instance, the GST rate is expressed in this way. Gambling tax rates expressed in pre-tax terms are: lotteries 455 per cent; casinos 26 per cent; gaming machines 42 per cent; and racing 52 per cent. For total gambling the tax rate is 52 per cent.

**Table 19.6 States collect similar shares of expenditure from each form of gambling<sup>a</sup>**

State and territory government revenue from gambling as a share of expenditure by different forms of gambling (1997-98), per cent

<i>Form of gambling</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>AUST</i>
Wagering	45	29	28	25	25	29	31	14	<b>34</b>
Lotteries, lotto and pools	75	96	77	76	87	100	77	77	<b>82</b>
Casino gaming	23	24	17	15	27	31	20	5	<b>21</b>
Gaming machines	22	41	30	-	41	44	22	51	<b>30</b>
Average all gambling	30	41	31	31	41	35	28	25	<b>34</b>

<sup>a</sup> Figures for gaming machines in New South Wales include Keno. Figures for Lotteries etc in South Australia include Keno.

Source: Tasmanian Gaming Commission (1999).

While there are broad similarities in the level and form of taxation for the same type of gambling in the different jurisdictions, there are nonetheless differences in the average rate of revenue collected.

- Differences in the average rate of revenue collection of gambling in casinos is largely the result of different compositions of gaming machine and table game activity in each jurisdiction. For example, gaming machine revenues can account for up to 80 per cent of an individual casino's total gaming revenue.
- Differences in the average rate of revenue collection for lotteries reflects differences in administration costs among jurisdictions, rather than differences in tax rates.
- Low rates of revenue collection on gaming machines in New South Wales and the ACT (particularly in relation to Victoria) are probably the result of the dominance of clubs in gaming machine gambling in those jurisdictions. Clubs receive concessional tax treatment in most jurisdictions, but these are more pronounced in New South Wales and the ACT as is the dominance of clubs in the provision of gaming machine gambling.
- Government revenue from wagering — and thus the revenue-to-expenditure ratios presented in table 19.6 — do not include revenues transferred to the wagering industry. In all jurisdictions a share of the gambling expenditure on wagering (and in Victoria a share of the expenditure on gaming machine gambling) must be distributed to the wagering industry. While the amounts being distributed to the wagering industry vary between jurisdictions, they are typically similar to the amounts collected directly by government as revenue from wagering (table 19.7).

**Table 19.7 Some government revenue from wagering is given back to racing clubs<sup>a</sup>**

Government revenue and funds distributed to the racing industry from TABs in each jurisdiction (\$ million; 1997-97)

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
Revenue to government	247	Na	80	37	21	9	5.4	na
Distributions to the racing industry	142	118	79	43	32	11	4.7	na

<sup>a</sup> Information for SA, and the ACT are for 1996-97.

Source: PC estimates.

## Impact of tax reform

The New Tax System involves the introduction of a 10 per cent tax on goods and services. Gambling is to be included in the ambit of this tax, with a rate of 10 per cent levied on industry revenue (net player loss).

The ACA (sub. 124, p. 18) has said:

... the ACA has concerns about how the blind application of a GST to gambling in general, and casinos in particular, would discriminate against casinos relative to other activities. The tax reform package currently under consideration in Australia will, if implemented, apply a 10 per cent GST on the net win of casinos. The net win is the mirror image of consumer expenditure... In effect, casinos would not be able to pass on a GST to consumers of their gaming products (because, as noted above, the rules of the game are effectively fixed). A GST would be a business tax on casinos, not a consumption tax, and would make the gaming tax burden faced by casinos even more severe.

The Commonwealth Government has acknowledged the problem saying:

... operators cannot always adjust their prices because these are often set by the rules of the game, or by State government legislation relating to levels of pay-out. As the States already tax gambling highly there may need to be corresponding reduction in State gambling taxes (Commonwealth Government 1998, p. 98).

Thus, although the new tax system may involve a change in the collection arrangements for some gambling taxes it is envisaged that it will not change the rates of tax on different gambling forms.

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## 19.6 Are the levels of gambling taxes appropriate?

Determining the appropriate level and form of gambling taxes, as for any tax, involves assessing the tax against three criteria — economic efficiency, equity and administrative simplicity.

As discussed, gambling taxes are higher than those imposed on most other goods and services, the exceptions being alcohol, tobacco, luxury cars and petrol. They are much higher than the proposed GST rate of 10 per cent. The rates of taxation also vary significantly between different gambling products.

There are three possible efficiency related arguments for taxing gambling products at a higher rate than other products — and indeed, for taxing different gambling activities at different rates:

- high gambling taxes may be efficient. That is, the efficiency costs from taxing gambling at higher rates (distorting peoples' behaviour) may be lower than for other goods;
- government restrictions on competition may create excess profits which should be returned to the community;
- the negative social consequences of gambling may justify raising the price of gambling to deter people from spending as much.

These arguments are examined in turn.

### Efficiency costs of gambling taxes

Taxes generally change the behaviour of those who bear them. Where taxes increase prices, consumers will consume less than otherwise, and the level of production will be lower. Because taxes distort the behaviour of consumers and producers, these groups lose more than just the revenue that goes to government. Economists typically describe these losses as the 'excess burden' of taxation — but also as 'efficiency losses', 'welfare losses', or as the 'deadweight loss'. They represent a reduction in the consumer surplus derived from gambling (chapter 5).

As already noted, it is only appropriate to discuss the excess burden of gambling taxes in relation to gamblers who derive 'consumer surplus' from their gambling activity. For problem gamblers, normal assumptions about benefits from gambling are inapplicable. The effects of taxes on problem gamblers are also important for policy but are considered separately.

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An efficient tax system is one that raises the necessary amount of revenue for the government (and the community) at least cost. The size of excess burden depends on:

- the responsiveness of demand for a product (in this case, gambling) to changes in its price (that is, the degree to which a tax causes behaviour to change); and
- the size of the tax (and thus the price change).

For instance, the excess burden would be relatively high if a large tax was imposed on a product for which demand was particularly sensitive to price. In this case, people would consume significantly less (and be significantly worse off). Conversely, if a tax did not change the demand for a product at all, it would not affect economic welfare (‘merely’ transferring income from people to the government). The responsiveness of demand for a good to changes in price is known as its *demand elasticity*.

### *Sensitivity of demand to price changes*

In principle, it would be efficient to vary the rates of taxation on goods and services inversely to their demand elasticities. Thus, higher taxes would be imposed on goods for which demand was insensitive to price changes, whereas lower taxes would be imposed on goods for which demand was more elastic. While this may be sound in principle, there are significant practical difficulties in measuring elasticities on a widespread basis, and the administrative costs of a system with numerous rates would be high. This has led most policy makers to reject this approach as a basis for designing a general tax regime.

Nevertheless, some goods with inelastic demand — such as petrol, alcohol and tobacco — have always been taxed at relatively high rates. Under proposals for implementing a GST they are to remain so. High rates for these goods are often partly justified on the basis that demand for them is insensitive to price, and hence taxes do not involve significant efficiency losses. This argument also applies to gambling. Table 19.8 shows that, with the notable exception of lotteries, average tax rates on gambling are not high in this country.

A number of participants considered that the current level of taxes could not be justified on the basis of insensitive demand. For instance, in the case of lotteries, Tattersall’s (sub. 156, p. ix) considered that:

the rate of tax on lotteries is higher than can be justified on efficiency grounds... The demand for gambling products may have been price inelastic in the past. However, it is likely that this is becoming less true as different forms of gambling proliferate.

**Table 19.8 Gambling is not highly taxed compared to alcohol, tobacco and petrol**

Ad valorem tax rates for selected commodities <sup>a</sup>

<i>Product</i>	<i>Taxes</i>	<i>Ad valorem tax rate</i>
		<i>Percent</i>
Lotteries, lotto and pools	Various	455
Spirits	Excise, WST, BFT	234
Tobacco	Excise, BFT	211
Leaded petrol	Excise, BFT	130
Unleaded petrol	Excise, BFT	120
Beer	Excise, WST, BFT	89
Wagering	Various	52
Wine	WST, BFT	42
Gaming Machines	Various	42
Cars	Tariff, WST, Stamp	38
Casino gaming	Various	26

<sup>a</sup> Gambling taxes are expressed as a percentage increase on the pre tax price. That is tax as a proportion of expenditure-net-of-tax.

*Data Source:* Albon (1997), Tasmanian Gaming Commission (1999)

Knowing the sensitivity of the demand for gambling to price changes is, therefore, a key to understanding the excess burden of gambling taxes. It is also important to determining whether taxing gambling at different rates is efficient, or whether rates should be made more uniform. As discussed in appendix D, very little data are available on the sensitivity of the demand for gambling as a whole or on particular activities. However, it appears that demand for most forms of gambling is relatively insensitive to price:

- the demand for lotteries appears to be the most insensitive across a broad range of prices;
- gaming machine demand also appears to be insensitive (eg AGMMA, sub D257, p.11) although less so than lotteries; and
- while casino and wagering demand may also be slightly insensitive to price changes, some sections of these markets, such as casino high rollers, are likely to be quite sensitive (which has implications for tax rates — box 19.2).

Two factors explain, at least in part, why most gambling forms are likely to be relatively insensitive to price:

- As discussed in chapter two, unlike normal consumer goods, the price of gambling is not readily apparent. To the extent that consumers do not know the price, it is reasonable to suggest that they will not be particularly responsive to price changes.



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- Secondly, there appears to be only limited substitution of one gambling form for another by consumers. As illustrated in figure 19.2 the introduction of gaming machines and casinos in a number of states drew more gamblers into the market, rather than drawing significant revenue from existing forms of gambling. The less substitutable a good is, in general, the less price responsive it is.

#### **Box 19.2 Less tax for the rich?**

Casinos pay a lower rate of tax on the revenue earned from high rollers — gamblers who bet significant amounts — than on the revenue earned from other gamblers. Typically, high roller activity is taxed at 10 per cent as against 20 per cent for other activity. In normal circumstances a lower tax rate will be passed on to consumers.

Casinos have argued — and governments agreed — that the lower tax rate is necessary to attract high rollers to Australian casinos (or casinos in particular states). Underpinning this argument is that high rollers (both from Australia and overseas) are internationally mobile and will gamble where they receive the best price. Lower tax rates allow casinos to offer inducements to high rollers — such as free accommodation and other services, or discounting losses by a certain percentage — which effectively lowers the price of gambling. If Australian casinos did not match the “prices” offered by other casinos, the economic activity generated by high rollers would be lost.

Thus the lower taxes on high rollers are based on the assumption that they are highly sensitive to changes in price. The casinos’ and governments’ argument in a nutshell is that 10 per cent of something is better than 20 per cent of nothing.

There is some force to this argument. Taxing economic activity which is price sensitive will significantly depress the level of the activity and be ineffective in raising revenue. On the same basis Australian exports (including some services exports such as tourism) will be zero rated under the GST, and there is a debate about the extent to which mobile international capital should be taxed.

Understandably, however, the community is suspicious of arrangements whereby the rich are given a better deal than the poor. And it is difficult to determine the lengths to which the argument should be taken. Should we levy no tax on high rollers because these gamblers increase the level of economic activity?

To maximise revenue, governments may need to set taxes for high rollers at a lower rate than other gamblers. But state governments should be wary of competing directly for high roller business among themselves as this could erode any revenue gains.

A number of economy-wide models have been used to assess the impact of current levels of gambling taxes on the economy, including work commissioned for this inquiry using the Econtech model. This work was primarily commissioned to assess the impact on the economy of regulatory restrictions, but it also contains some analysis of gambling taxes. Consistent with the above conclusion these models each

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assume that demand for gambling is relatively unresponsive to price. However, they obtain quite different of results depending on how the model is structured and operated (box 19.3), ranging from significant gains from reducing gambling taxes to virtually no gains. While each model provides a particular insight on how gambling taxes may affect the economy, from the collective results it is difficult to draw conclusions about the appropriate level of gambling taxes, even from a narrow efficiency perspective.

**Box 19.3 Economy-wide modelling of the impact of gambling taxes**

Econtech (commissioned by the inquiry), the Centre for International Economics and ACIL have used 'general equilibrium models' to investigate the impact of gambling taxes on the economy. In each of the models the demand for gambling was assumed to be relatively insensitive to price.

**Econtech** modelled the impact of reducing taxes on gambling to the GST rate of 10 per cent (offset by income tax increases). Econtech concluded that there would be gains of between \$477m and \$735m a year. It also found that there would be significant gains from more uniform taxes.

Underpinning this result is the principle that uniform tax rates do not cause efficiency losses because they do not change relative prices. Thus, the model is not structured to explore the option of Ramsey pricing. Ramsey pricing is impractical for general application to a tax regime. However, given the distortions present in the state and Commonwealth tax system, the inelastic demand for gambling has emerged as a key consideration in assessing the impact of tax reductions. In addition, evidence to the inquiry suggests there is less substitution between different gambling forms than normal modelling parameters would suggest. For these reasons the Commission has not used the results of the Econtech model for examining taxation options.

**ACIL** modelled the impact of a 50 per cent cut in gambling taxes offset by income tax increases. It found that a reduction of taxes on gambling has *almost no* impact on consumer behaviour and the level of industry output in both the short and long run. It attributed this result to the inelasticity of demand for gambling services. Only when ACIL modelled a 50 per cent reduction in taxes without offsetting tax increases elsewhere — effectively a 'free lunch' — did their model show gains to the economy. However, these gains stem from an assumed increase in government efficiency, or reduced outlays, (allowing other taxes not to increase) rather than to the lowering of gambling taxes.

(continued)

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**Box 19.3 continued**

The **Centre for International Economics** modelled the effect of a tax increase that would reduce the level of gambling activity by 1 per cent. It found that the tax increase would reduce Gross Domestic product by \$160m and consumption by \$130m. However, the model was run in short-run mode, which limits the ability of the capital and labour displaced by the reduction in activity to be used for other purposes.

None of the models are able to incorporate the impacts of problem gambling.

In summary, there are many complexities associated with general equilibrium modelling, particularly for modelling gambling which does not have a straightforward price like other goods, and which has addictive qualities for some people. For these reasons there are advantages in analysing gambling taxes using a partial equilibrium approach.

*Source:* Econtech 1999; ACIL sub. 155 p. 195; CIE (1997).

The conclusion that the demand for lotteries, and other gambling forms, is relatively unresponsive to price provides some support for the argument that taxing gambling at higher rates than other goods may be efficient. However, this does not mean that current tax rates are optimal. The efficiency, or excess burden of a tax depends on its price responsiveness *and* the tax rate. A very high tax on a good which has inelastic demand can still be inefficient.

Economists describe inefficient taxes as having a high Marginal Excess Burden (MEB). The MEB is the efficiency cost of raising another dollar of tax. For instance, income taxes are typically estimated to have a MEB of around 20 cents and are generally considered to be quite efficient. If gambling taxes are efficient, their MEBs will be comparable to that of other relatively efficient taxes such as income or payroll tax. This provides a benchmark for assessing the efficiency of gambling taxes.

### *Lotteries*

Lotteries are very highly taxed — at a rate of 455 percent when the tax is expressed in the same way as we express the GST. This raises the issue of whether it has a high MEB, notwithstanding its unresponsiveness to price. In the absence of reliable estimates of the elasticity of demand for lotteries the MEB cannot be calculated directly. However, it is possible to identify what different elasticities would imply for the efficiency of lottery taxes. For instance:

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- if lotteries have an elasticity of  $-0.5$  (significantly inelastic) it implies they have a marginal excess burden of around 70 cents. That is, there is an efficiency loss of 70 cents for every dollar raised — clearly an inefficient tax;<sup>3</sup>
  - on the other hand, if lotteries have an elasticity of  $-0.3$  or lower (highly inelastic), it implies they have an MEB of around 20 to 30 cents — comparable to other efficient state taxes.

While the elasticity of lotteries is unknown, very high tax rates imply that very low elasticities are necessary for lotteries to be an efficient tax. Very low elasticities (highly unresponsive to price) are possible, indeed four out of the six elasticities for Tattersall's lottery products calculated by Access Economics are  $-0.24$  or below (appendix D). Yet it is also possible that the price responsiveness is higher. Certainly, a large majority of goods and services have elasticities higher than  $-0.3$ .

In this situation what should governments do?

The Commission considers that with such a high tax rate there is an in-principle case to experiment with lower lottery taxes on efficiency grounds. However, governments' actions should be guided by whether they have scope to efficiently raise the revenue from other means that would be lost from lowering lottery taxes:<sup>4</sup>

- if state governments have scope to increase relatively efficient taxes, such as payroll tax or land tax, they should experiment with lottery taxes (say an increase in the payout ratio from 60 per cent to 65 per cent) to determine if lower rates would provide benefits to the community; and
- if, governments do not consider there is scope to raise other taxes — or there is scope only to raise taxes which themselves have a high MEB (such as stamp duty) — there would be little value in experimenting with lottery tax rates.

### *Gaming machine taxes*

In contrast to lotteries, the case for experimenting with gaming machine taxes on efficiency grounds is weaker. The demand for gaming machines is also likely to be relatively unresponsive to price (although not to the same degree as lotteries). However, the tax rates on gaming machines are only one tenth of those on lotteries (averaging around 42 percent compared to 455 percent). Over a reasonable range of elasticities this translates into MEBs associated with gaming machine taxes that are

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<sup>3</sup> The MEB calculations are based on the methodology presented in Albon 1997.

<sup>4</sup> Another relevant factor is whether Lottery taxes are likely to be the most inefficient state tax. If other taxes are more inefficient, given the ability to raise other revenue is limited, then the most inefficient tax should be reduced before any experimentation with lottery taxes.

not markedly higher than other efficient taxes. For instance at an elasticity of  $-0.75$  the MEB on the average gaming machine tax rate would be around 30 cents.<sup>5</sup>

Another relevant consideration is whether any tax reductions would be passed on to consumers.

Normally, tax cuts can be expected to reduce prices. However, in the gaming machine market there is evidence that this may not always occur. In the United States, tax rates among states vary widely, yet prices do not exhibit much variation. For instance, the differences in gaming machine prices in Nevada, New Jersey, Colorado, Illinois and Missouri do not appear to be at all correlated with the substantially different tax treatment that is applied to gaming revenue in each state.<sup>6</sup>

In Australia, both cross-sectional and time series information also indicates that tax rates do not significantly affect prices (table 19.9 and box 19.4). For instance, tax rates are higher in Victoria than New South Wales, but Victoria has a lower price (or a higher return to players). Paradoxically, in some jurisdictions, the payout to players seems to have increased as the tax rate has increased.

**Table 19.9 Gaming machine prices and taxes, 1997-98**

1997-98	NSW	VIC	QLD <sup>a</sup>	SA	TAS	ACT	NT
Turnover (\$m)	30 540	18 098	4 058	3 292	207	1 249	232
Expenditure (\$m)	2 989	1 711	601	395	24	127	20
Tax (\$m)	690	707	180	161	10	28	10
Return to player	90.2%	90.5%	85.2%	88.0%	88.4%	89.8%	91.4%
<b>Av tax rate</b>	<b>23%</b>	<b>41%</b>	<b>30%</b>	<b>41%</b>	<b>42%</b>	<b>22%</b>	<b>50%</b>
<b>Price per dollar gamble</b>	<b>10c</b>	<b>9c</b>	<b>15c</b>	<b>11c</b>	<b>11c</b>	<b>10c</b>	<b>9c</b>

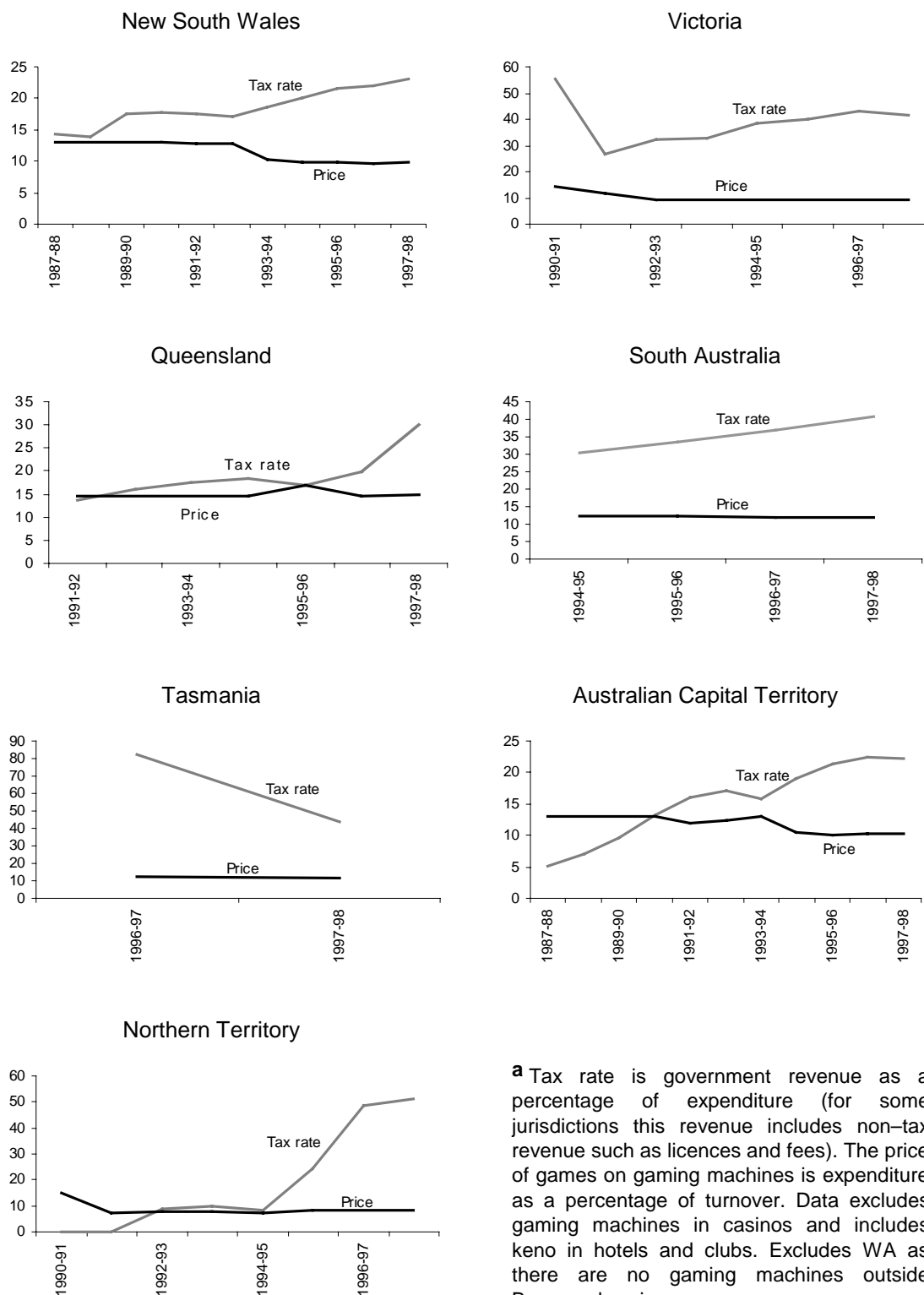
<sup>a</sup> Queensland previously had a fixed return to player rate of 85 per cent. This fixed percentage has recently been removed.

Source: South Australian Government (sub. D284, p. 19).

<sup>5</sup> Of course, the MEB in more highly taxed jurisdictions would be higher, and correspondingly, the MEB in jurisdictions with lower gaming machine taxes would be lower.

<sup>6</sup> Based on data on machine prices from [www.thewizardofodds.com](http://www.thewizardofodds.com) and tax rates from Dunstan (1997).

## Box 19.4 Gaming machine prices and taxes, selected years<sup>a</sup>



<sup>a</sup> Tax rate is government revenue as a percentage of expenditure (for some jurisdictions this revenue includes non-tax revenue such as licences and fees). The price of games on gaming machines is expenditure as a percentage of turnover. Data excludes gaming machines in casinos and includes keno in hotels and clubs. Excludes WA as there are no gaming machines outside Burswood casino.

Source: Tasmanian Gaming Commission (1999).

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It is difficult to explain why higher taxes appear to be associated with lower prices. Indeed, the whole question of the relationship between taxes and prices would be a fruitful area for further research.

However, whatever the explanation, based on the evidence, the Commission could not be confident that tax cuts would necessarily deliver better prices to consumers, rather than higher profits to gaming machine operators.

Of course, governments could increase the minimum payout ratio to ensure the tax cut is fully passed onto consumers. However this approach could have significant drawbacks. To ensure larger venues with low cost operations passed on the tax cut, the payout ratio would have to be set quite high. In turn, this may render gaming machine business in smaller venues (with higher costs) uneconomic.

Overall, the lack of evidence that gaming machine taxes are particularly inefficient at current levels, and potential problems in ensuring that any reductions were passed onto consumers, suggests there is not a strong case for reducing gaming machine taxes on efficiency grounds.

On the contrary, as discussed in chapter 21, there are arguments for increasing the tax rates for clubs to that of hotels.

### *Other gambling taxes*

Casinos are the lowest taxed form of gambling. While some sections of the casino market are highly responsive to price changes, overall it is likely that casino gambling is somewhat unresponsive to price changes. Owing to the relatively low tax rate it is, therefore, unlikely that the MEB associated with casino taxes is relatively high.

Wagering faces many different tax rates on different types of bet (for instance bets for a win are generally taxed at a lower rate than a trifecta bet). Overall, it is taxed at a slightly higher rate than gaming machines — around 50 per cent overall. However, like gaming machines there is little evidence that there are high MEBs associated with wagering taxes.

### *Summary of efficiency arguments*

In summary, drawing on the material presented in appendix D as a guide to the MEBs associated with various gambling taxes, the Commission considers that:

- with the possible exception of lottery taxes, the evidence of low responsiveness to price changes (while not definitive) should caution against assuming that

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simply because gambling taxes are high, there would be large efficiency gains (via recreational gamblers) from reducing them; and

- the likely variation in responsiveness to price changes among different forms of gambling should caution against assuming that a move towards uniformity among gambling forms would significantly improve resource allocation or improve welfare.

Thus, while the pattern of taxes may not be optimal, on the basis of the available information the Commission does not consider that a case can be made for changing gambling taxes on efficiency grounds, with the possible exception of lotteries.

### **Taxing excess profits**

The second ground for higher gambling taxes is based upon the restrictions governments impose on the availability of different forms of gambling. Governments restrict the supply of gambling activities in many ways, including restrictions on the number of gaming machines (in total and in each establishment), the number of lottery operators, and the number of casino licences. Restricting the range and quantity of gambling services available will tend to increase prices and allow gambling operators to earn greater than normal profits. Gambling taxes and licence fees are one means by which states can capture these windfall profits on behalf of the community.

ACIL (sub. 155, p. 133) considered that the excess profit argument for high taxes may be overstated:

... whether there might be a case for such high taxes to extract economic profit is not as clear cut as it might first appear... In some market segments, for example, casino commission play, the market is highly competitive and this will ensure that economic rents are practically non-existent. In other markets, the question should be asked as to what extent licence fee arrangements already deal with economic rents.

ACIL is correct to point to the difficulty of determining the level of excess profits for different forms of gambling; however, there is clear evidence that they exist for some gambling services.

Potential excess profits will depend on the restriction imposed, the competition remaining in that form of gambling and the competition from other forms of gambling. For instance, despite restrictions there is a degree of competition in the gaming machine market. Otherwise operators would be likely to offer only the minimum legislated payout rates of 85-87 per cent rather than the 89-91 per cent rates observed. On the other hand, New South Wales has the least restrictive gaming machine regulations, yet hotels have bid significant amounts (up to \$60 000) for



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additional gaming machine licences. This indicates that the restrictions generate an element of excess profits at current tax rates for operators who have not had to pay licence fees for their machines.

Thus, as noted, reducing the tax rate could potentially increase profits to existing operators rather than lead to increased payout rates.

Similarly the casino operators in New South Wales and Victoria paid over \$300 million each in upfront licence fees, on the basis of the tax regime that would apply to their operations. Again, these bids are a reflection of the after-tax profits they expected to generate.

While lotteries are restricted to one operator in most states, they are mostly operated by governments. As such, problems with windfall gains accruing to private operators generally do not arise.<sup>7</sup>

The approach of a number of governments in combining a tax regime with the auction or tender of licences, is one method of ensuring that the government collects potential windfall gains. It is difficult to determine the exact level of profits resulting from restrictions on competition so it is hard to set a tax rate that would exactly collect this excess profit. Auctioning licences in association with a well defined tax regime, allows the market to determine the value of the licence and helps ensure that any expected windfall gains or excess profits are transferred to government.

Another method of ensuring that windfall profits do not accrue to operators would be for governments to regulate payouts. Governments could set payout ratios on gaming machines, the TAB, and lotteries so that operators could earn only a normal return on their investment despite restrictions on access (although, as discussed, this could cause problems for smaller gaming machine operators). Under this approach consumers would benefit from better 'odds', whereas under the taxation approach government revenue will benefit.

Thus, taxes (and licence fees) are a legitimate way, but not the only way, of ensuring gambling operators do not earn excess profits that are created by restricting access to gambling.

If anti-competitive restrictions were eased, this general rationale for higher taxes would be similarly reduced. Moreover, if despite the restrictions, competition

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<sup>7</sup> In Victoria the lotteries are operated by a private monopoly. Even in the absence of high taxes, unless minimum payout ratios are imposed by the government prices may be higher than the costs of production. Thus, any reduction in the tax rate in Victoria would need to be accompanied by an increase in the payout level to prevent rents accruing to the operator.

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increased from, say, internet or other new gambling forms, this rationale for higher taxes could again be weakened.

### **Reducing social costs of gambling through taxes and funding problem gambling services**

There is a high degree of consensus that gambling taxes should be used to fund problem-gambling services and community awareness campaigns. While this is a strong argument for taxing gambling, it does not in itself justify high taxes. The resources required to fund these services at appropriate levels are likely to be only be a small proportion of the taxes raised from gambling (less than one per cent).

The third argument for taxing gambling more highly than most other goods is to *reduce* the level of problem gambling. According to this argument, raising the price of gambling reduces the demand for gambling and hence the level of problem gambling.

However, the proportion of recreational gamblers to problem gamblers is high. For recreational gamblers, raising the price will produce no benefit, indeed an efficiency loss, so at best, using taxes in this way is a blunt instrument.<sup>8</sup>

Although this point can also be made with respect to alcohol taxes, there is an important difference between the effect of these taxes on the respective target groups. In most cases problem drinking relates directly to the effects of the excess consumption of alcohol rather than to the financial cost of consumption. In contrast, the financial cost of gambling is the principal problem.

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<sup>8</sup> Simple externality arguments whereby a tax reduces output of a 'bad' to a socially optimal level are difficult to apply to gambling. While all pollution may have a negative impact on the community, gambling is not like pollution. Gambling yields recreational benefits to the large majority of gamblers; only some gamblers suffer problems. A tax reduces the benefits people derive from gambling as well as the costs to some people.

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**Box 19.5 Do taxes help or hurt problem gambling?**

Taxes, and tax breaks, are often used to discourage socially damaging activities and promote socially good activities. However, it is uncertain whether taxes on gaming machines can play a role in assisting problem gamblers.

Taxes raise the price of gaming. For most goods, consumers' can observe prices and price changes directly, and react accordingly. This is more difficult in the case of gaming machines. Gamblers generally can only observe prices and payouts indirectly. For instance, they may observe how much money they lose in a period of time, or how much it costs to play for a certain period.

If taxes were reduced it would be possible to increase payout rates. If problem gamblers did not change their behaviour they may lose their money at a slower rate. For many problem gamblers this could reduce the total amount they lost because the time they have available to gamble is limited by work or family commitments. Thus, reducing tax rates could help existing problem gamblers.

However, for this to occur, gamblers would have to maintain the same intensity of gaming (the amount wagered on each credit and the number of credits played at one time). If problem players increased their intensity of play in response to the tax decrease, potential benefits of the reduction would be lost. The behaviour of problem gamblers is poorly understood and it is uncertain how they would react to a tax reduction. For instance, if they lost less, would they no longer feel a pressure to recoup losses through more intense play? Or would they increase the amount they bet in response to better payouts?

Thus, if governments were considering lowering taxes to help existing problem gamblers, they would need to also regulate the intensity of play to ensure problem gamblers spent less. Even then, reducing taxes could increase the attractiveness of gaming machines and encourage more people into problem gambling over time.

Alternatively, to decrease the attractiveness of gambling, governments could consider a policy of raising taxes. But problem gamblers may not notice small tax increases because of the difficulty of observing price. If they maintained the same intensity of play they would lose money more quickly, which would exacerbate their problems. Again it is uncertain whether they would maintain, reduce or even increase their intensity (to chase losses) in this situation.

Large tax increases would affect payouts significantly and could break the illusion problem gamblers hold that they can win. Large increases would also reduce the number of people who become problem gamblers.

However, this policy would work by fundamentally altering the attractiveness of gaming, and would reduce the enjoyment of recreational gamblers.

Until more is known about the profiles and behaviour of problem gamblers, taxes should be regarded as a blunt instrument to address problem gambling. More focussed instruments to assist problem gambling are those discussed in chapter 16.

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Depending on the behaviour of *existing* problem gamblers, high taxes will either not assist, or indeed could worsen their situation.

- if problem gamblers spend to a certain limit on gambling regardless of its price, high taxes will not significantly affect their behaviour — they will simply lose their money more quickly; but
- if raising the price of gambling though higher taxes causes problem gamblers to spend more than they otherwise would (in some cases raising additional funds through crime) it will exacerbate their problems.

Different problem gamblers are likely to exhibit either types of behaviour. In either case, unless taxes were so high as to almost prohibit gaming, high taxes are not a good policy to assist *existing* problem gamblers. This might suggest that *lower* taxes could assist existing problem gamblers. However, at least for gaming machines, the practical scope to do this is limited given the existing level of taxes. Even if the tax rate was reduced from present levels to the GST rate, payout ratios would only increase by 2 percentage points or so — which may not be enough to materially affect the expenditure of problem gamblers. In addition, the behaviour of problem gamblers needs to be better understood to be confident that low taxes, even in principle, would assist them (box 19.5).

As well as assisting *existing* problem gamblers, preventing people *becoming* problem gamblers should also be an aim of policy makers. It is possible that, in principle, gambling taxes have a more beneficial effect in preventing people developing gambling-related problems. Higher prices would tend to reduce the total level of gambling in the community to some extent, and may deter some people from gambling who would later develop gambling problems. However, if, as seems apparent, the demand for gambling is relatively insensitive to its price, taxes need to be relatively high to reduce the level of gambling activity significantly. Again, in relation to gaming machines, the effect of current taxes is to lower payout ratios by about three percentage points, which is probably not enough to significantly reduce the attraction of gaming machines.

In any case, while this argument may be used to support relatively high taxes on some forms of gambling, such as gaming machines, it cannot be used to support high taxes on all gambling forms. For instance, there is no evidence that lotteries are a significant contributor to problem gambling yet they are the highest taxed activity.

Overall, until more is known about the behaviour of problem gamblers, it is not clear that taxes — either high or low — have a large role to play in preventing problem gambling.

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## The impact of gambling taxes on equity

The principle of equity, or fairness, includes both the concepts of *horizontal* and *vertical* equity.

- horizontal equity is achieved when those with similar incomes or wealth pay similar levels of tax;
- vertical equity implies that higher levels of tax should be paid by those with a greater capacity to pay.

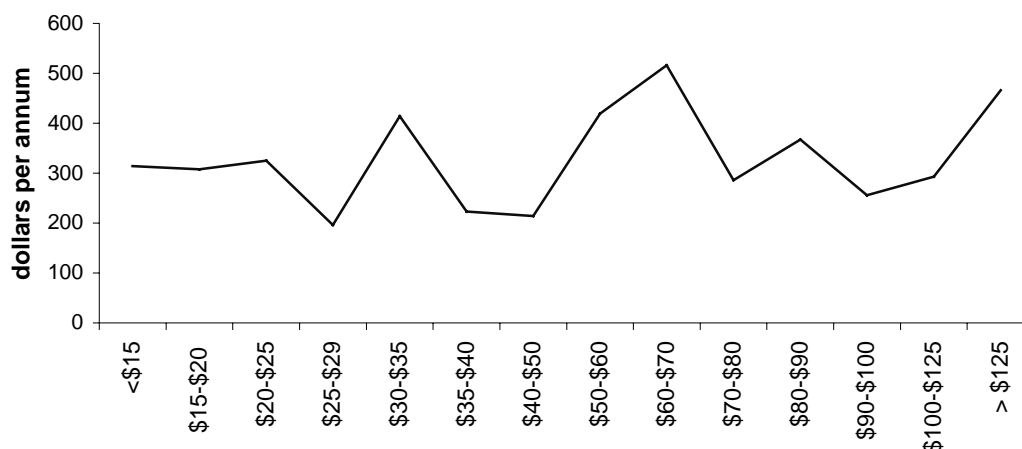
In relation to vertical equity, a tax is defined as *progressive* if the proportion of a taxpayer's income paid in tax rises with income; it is *regressive* if the tax paid as a proportion of income falls as income rises.

The Commission has analysed the equity impacts of gambling taxes using data from its *National Gambling Survey*. As shown in figure 19.3, people on different incomes tend to pay similar amounts of gambling tax (the variation is more likely to be a reflection of the survey sample than actual behaviour). According to the *Survey*, about 65 per cent of gambling taxes are paid by people with an above average household incomes.

Expressing taxes paid as a proportion of income, however, confirms that gambling taxes are regressive (figure 19.4). This result is consistent with the work by Access Economics (sub. 156) and Smith (1998).

Figure 19.3 **Most gamblers pay a similar amount of gambling tax**

Tax paid by each household income group (for people that gamble). Income is in thousands

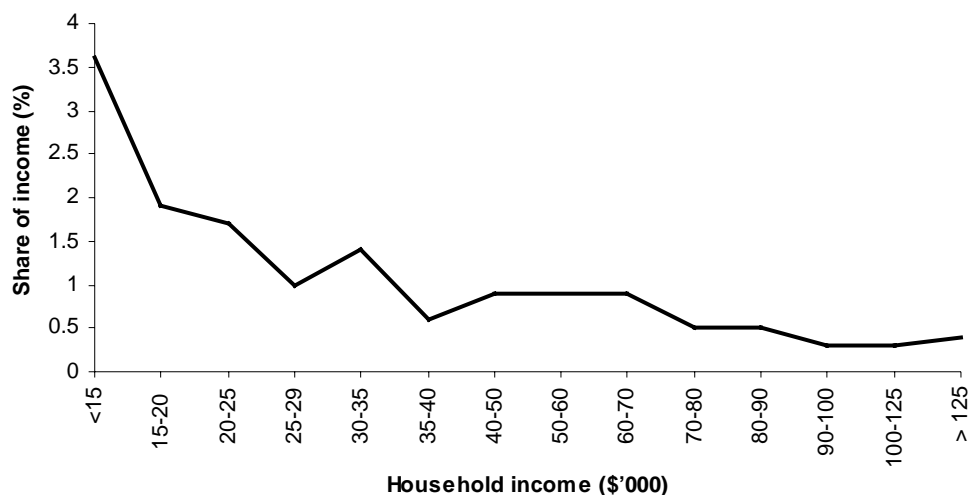


Data source: PC National Gambling Survey.

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**Figure 19.4 Gambling taxes are regressive**  
Gambling tax as a proportion of household income

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*Data source: PC National Gambling Survey.*

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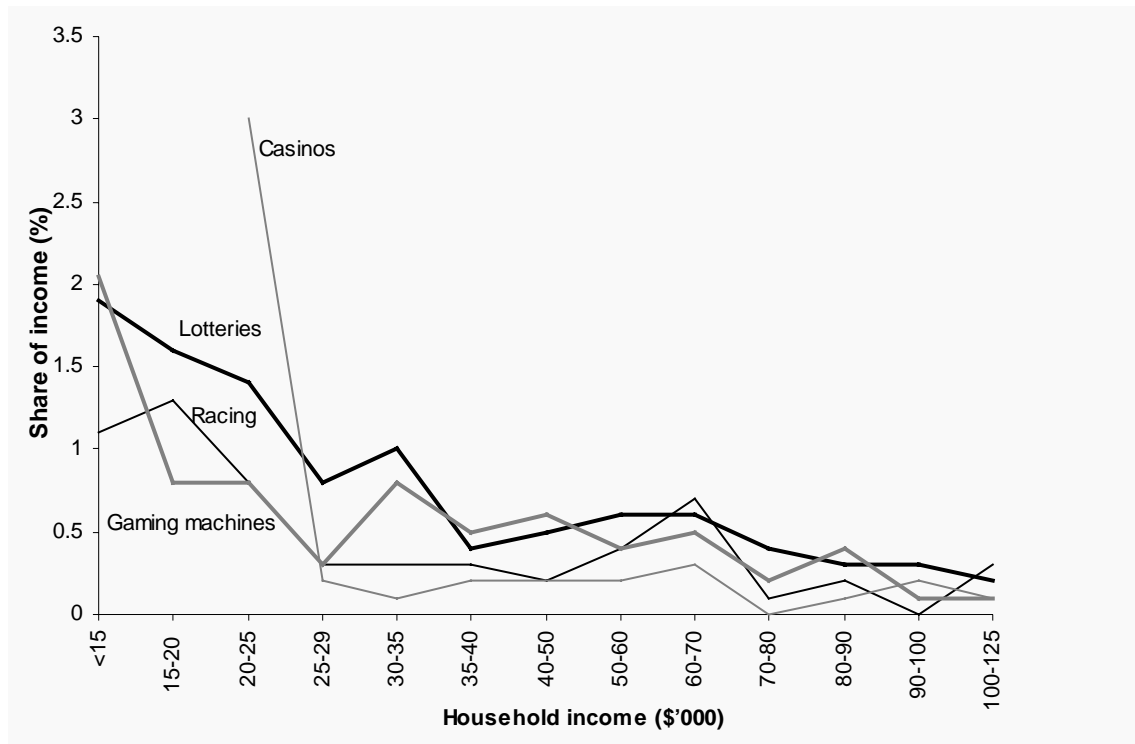
Low income earners pay a greater proportion of their income in tax because they spend proportionately more of their income on gambling. Using Household Expenditure Survey data that takes into account amounts wagered, Smith (1998, p. 35) concluded:

... the pattern of gambling expenditures and player losses has become more concentrated in lower income groups over the decade to 1993-94. Lower income groups have increased their gambling proportionally more than those on higher incomes. According to the HES, gambling spending has nearly doubled as a share of income in the poorest 40 per cent of households, while falling from already low levels in the incomes of the most affluent 40 per cent of households.

While the Commission's survey has shown that, overall, gambling taxes are regressive, the level of regressivity differs among different gambling forms (figure 19.5):

- taxes on lotteries and gaming machines are the most regressive;
- wagering taxes appear to be regressive, although there is significant variability among income groups; and
- other than for the lowest income groups (in which there are few casino players), casino taxes are proportional.

**Figure 19.5 Regressivity differs by gambling form<sup>a</sup>**  
 Gambling tax as a proportion of household income



<sup>a</sup> Casino data has been presented for incomes under \$25 000 because of low sample numbers (ie few players) at lower income categories.

Data source: PC National Gambling Survey.

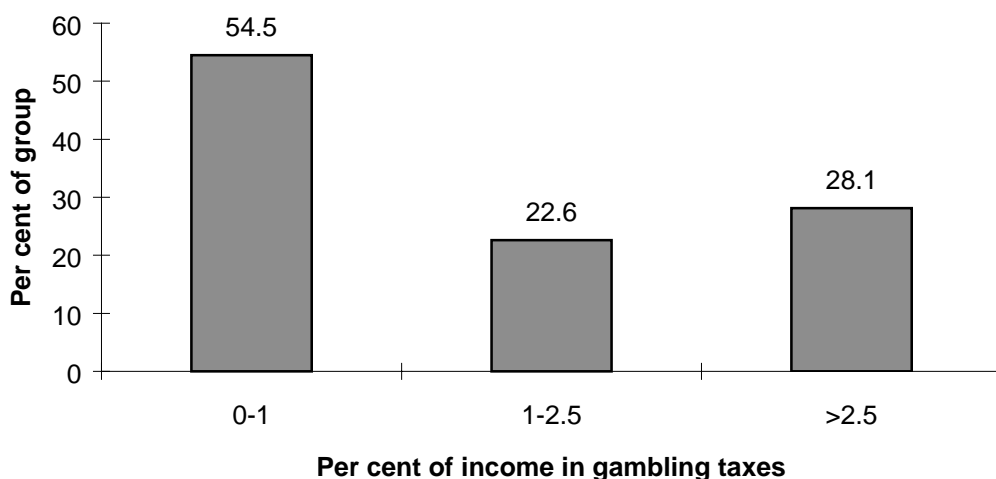
Lottery and gaming machine taxes, therefore, provide the most cause for concern on equity grounds.

The regressivity of lotteries and gaming machines is of particular concern because, the distribution of gambling taxes among the poorest 20 per cent of households is uneven (figure 19.6). One half of the group pay less than one per cent of their income in gambling taxes, whereas one quarter pay above 2.5 per cent (10 per cent of the group pay more than 5 per cent). For these latter groups, gambling taxes constitute a significant burden. But, in contrast to taxes on products such as food which is consumed by everybody, it is difficult to identify which low income earners are paying the tax. Whereas the government could effectively compensate low income earners for a tax on food, it would be difficult to provide targeted compensation to offset the regressivity of gambling taxes.

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Figure 19.6 **Low income gamblers pay differing amounts of gambling tax**  
Percentage of the lowest income quintile paying different levels of gambling tax

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Data source: PC National Gambling Survey.

Notwithstanding these concerns, the Australian Hotels and Hospitality Association (sub. 154, p. 24) summed up a common attitude toward gambling taxes in the community:

It is true that gambling taxation is regressive. Lower income people are highly represented amongst gamblers who use gaming machines. Thus lower income people pay a high percentage of the gambling tax. This is a universal fact in respect of all indirect taxes and is unavoidable. *At least gambling is a discretionary spend and no lower income person is forced to pay the tax.* [emphasis added].

Although these comments help explain why there is community acceptance of high taxes on gambling, the so called ‘voluntary’ nature of gambling taxes, like that of many other consumer items, should not mean that their negative equity effects are ignored when devising tax policy.

Reducing lottery taxes (and raising the minimum payout ratios) would by definition reduce the regressivity of lottery taxes — the expected return to all gamblers would increase, and lower income earners as a group would not pay as much in lottery taxes. As ACIL (sub D233) has pointed out gamblers would benefit because they would be purchasing a better value product — they would have a greater chance of winning, or a chance at winning a greater amount of money for the same ticket price.<sup>9</sup>

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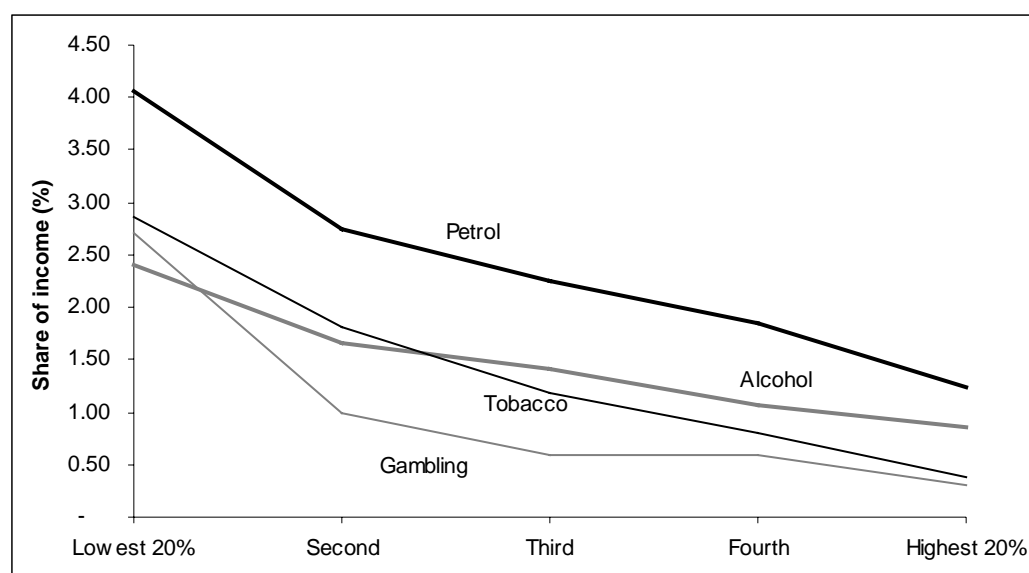
<sup>9</sup> However, to the extent that the tax reduction were to be reflected in higher prize money rather than lower ticket prices there are two qualifications to this analysis. Firstly, as noted earlier,



Similarly, if as the Commission has concluded, the demand for gaming machines is not particularly sensitive to price, reducing taxes will lead to players spending less on gaming machines. Lower income earners would be left with more money in their pockets. Consideration of lower taxes to improve equity outcomes should, therefore, centre on gaming machines taxes and lotteries.

Such an assessment would need to take account of a range of wider factors, such as the potentially offsetting progressivity of income taxes within the system as a whole, and the available options for raising other state taxes (some of which, such as alcohol, tobacco and petrol are also regressive — figure 19.7).

**Figure 19.7 Some other state taxes are also regressive**  
Expenditure as a proportion of household income by quintile



Data source: Gabbitas and Eldridge (1998), PC estimates.

gamblers find it very difficult to compute the odds of winning lotteries. And for some lotto games it is not possible to calculate them in advance. If gamblers do not know the odds of winning now, it is not clear that if taxes were reduced what *ex ante* benefit they will get from better odds that would also be unknown. Secondly, to the extent that the governments motivation for reducing lottery taxes would be to increase the spending power of low income earners for other goods (i.e. put money back in their pockets) then the policy could fail. The distribution of lottery prizes is highly skewed. A few people win a lot: most people win nothing or very little.

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## Administrative simplicity

There appears to be considerable debate surrounding the administrative costs of raising taxation revenue. Summarising this debate Smith (1998, p. 47) comments that:

Gambling taxes typically cost more to collect than most other taxes, although how much so is a matter of debate... At issue is whether to count the payment of prizes and the costs of regulating or running gambling enterprises as tax-collection costs.

An apparent source of confusion in this debate is the notion that legalised gambling is simply a device for governments to raise revenue and has no social purpose. For instance Smith (1988) cites Clotfelter and Cook (1989) as saying:

... it is widely accepted that the primary purpose of state run lotteries is to raise revenue (p. 49).

If legalised gambling is solely a revenue-raising activity then all operating costs of gambling operators could be treated as costs of raising this revenue. This would obviously generate very high estimates of the administrative costs of raising gambling taxes.

However, this argument ignores the fact that lotteries (and other forms of gambling) are an entertainment service that many people wish to buy regardless of who runs them and whether they are taxed or not. That governments often restrict people's ability to gamble, does not alter that fact. Indeed, the argument that all gambling is a form of tax collection is analogous to arguing that the costs of producing a movie should be included in the costs of administering the GST.

In short, the collection costs of gambling revenue should be assessed on the same basis as the costs of collecting tax on other goods and services. They include the compliance costs for gambling operators — record keeping, assessing liability, making payments — and the costs to government of processing receipts and ensuring taxes are paid. They do not include the costs of regulating the activity or ensuring probity, as these are costs that will be incurred regardless of taxation arrangements.

Looked at in this way, the administration costs of collecting most gambling revenue appear to be quite low. While tax arrangements across jurisdictions appear to be complex, this need not raise compliance costs for individual operators. Taxes are collected from relatively few sources compared to most state taxes and remittance processes can be automated. Indeed the costs of collecting lottery revenue are likely to be very low. Estimates are not available for the collection costs of other gambling taxes, but they are likely to be no higher than other state taxes.

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## **Conclusion: should gambling taxes be lower?**

The taxation of gambling has evolved in an adhoc way, mirroring developments in the gambling industry and the way it is regulated. In this environment, it would be unlikely if gambling taxes were at the most appropriate levels. However, given the poor state of information about how gamblers react to changes in tax rates, it is uncertain what those levels should be.

Analysis of the impact of gambling taxes on problem gambling reflects this uncertainty. Given the lack of knowledge about the gambling behaviour of problem gamblers (and not all problem gamblers are alike) it is not clear that tax is a useful instrument for assisting them or preventing new problem gamblers. Thus, at the present time, problem gambling does not provide a rationale for either maintaining high taxes, or having lower taxes.

Nor is there a sufficient case, based on the evidence, for changes in gambling taxes on efficiency grounds. Because the demand for most gambling forms appears to be relatively insensitive to price changes across a broad range of prices, there may not be significant efficiency gains from reducing rates of tax. In addition, the likely variation in price sensitivity among gambling forms means that there may be little efficiency gain from greater uniformity of tax rates. Lotteries may constitute an exception, however, because of the very high tax rates applying to them.

Taxing gambling at higher rates than other goods is also justified in order to collect the excess profits that arise from restricting gambling. Indeed, in the case of gaming machines in clubs, the current taxes appear to be too low in some cases (chapter 21).

However, on equity grounds high gambling taxes are problematic. They are regressive overall, with this being most pronounced for lotteries and gaming machines. However, equity outcomes from reducing gambling taxes would also depend on what alternative taxes were available to states and territories to replace lost revenue, and their degree of regressivity.

**In sum, there are both efficiency and equity grounds for experimenting with lower lottery taxes. While the levels of other gambling taxes are unlikely to be optimal, on the basis of available information there is not a strong, or unambiguous case for general reductions.**

## **19.7 Design issues**

As described in appendix M, there is enormous variation in the design of taxation arrangements between forms of gambling and between jurisdictions. Many of these

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variations are of little material importance. However, concerning wagering, two issues of significance are the use of turnover taxes for bookmakers, and the implications of a national market for wagering. Another design issue that policy makers should examine is the use by a number of jurisdictions of sliding scales of taxation (based on revenue) for gaming machines.

## **Wagering**

### *Turnover taxes*

Turnover is used as the base for bookmakers tax in all jurisdictions and for sports betting in the Northern Territory. While this arrangement is longstanding there are a number of disadvantages for bookmakers associated with the tax. The most significant disadvantage is that it places all risk for variation in cashflow with the industry. The profits of bookmakers vary significantly from race to race and meeting to meeting. However, under the turnover tax, bookmakers pay a certain proportion of all bets wagered regardless of whether a race or a meeting yielded any profits. While over time bookmakers will achieve some average return, the turnover tax will exacerbate any lumpiness in the timing of profits. The tax arrangements, therefore have the effect of raising the risk (both positive and negative) faced by bookmakers (and probably short term financing costs) relative to a tax that used gross profit as the tax base.

Turnover taxes have traditionally been used, because they have represented the most verifiable and auditable measure of bookmakers takings. There have been concerns that gross profits may be open to manipulation and therefore an unreliable tax base.

However, the Commission notes that, increasingly, bookmakers' operations, like most gambling operations, are electronically based, or at least involve an electronic record of all bets. For instance, Centre Bet in the Northern Territory keep audio records of all bets. This presents an opportunity to begin to move to gross profit taxes. Initially governments could introduce a gross profit tax for those bookmakers that can present verifiable profit figures. This would provide an incentive for bookmakers to make any improvements required to their recording systems.

### *The national market for wagering*

Like gaming machine taxes, wagering and sports betting taxes are set at the state level. However, in contrast to gaming machine gambling, wagering and sports betting can more easily take place in a national rather than state market — such as

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by placing bets on interstate races through the local TAB, or by placing bets on local races through a telephone bet with an interstate bookmaker.

In a national market differences in state taxes can potentially affect the level of wagering activity among states.

As described in appendix M, wagering taxes differ across jurisdictions. Although these differences appear relatively slight for TAB (racing) and bookmaker taxes, they are more marked in the case of sports betting. For example, most jurisdiction's taxes on bookmakers vary by only one percentage point, whilst for some sports betting there can be differences of up to ten per cent.

It is unclear how significant cross border bets are in the turnover of TABs and bookmakers. In fact, to minimise leakage to local government revenues, most jurisdictions do not allow advertising by non-local betting operators (these provisions are currently being reviewed under the legislative review requirements of the Competition Principles Agreement) (NSW Dept of Gaming and Racing 1999).

Nevertheless, the differences in taxes across jurisdictions give operators in lower tax jurisdictions the potential to undercut the prices offered by operators in higher tax jurisdictions. Although the extent to which this actually occurs is unclear, there is certainly a stronger incentive to pass on tax cuts where consumers may choose from operators in different states and territories.

While this creates a better deal for consumers, it may erode government revenues in the more highly taxed jurisdictions, and would be likely to place pressure on state and territory government to further align rates.

### **Sliding scales of tax rates for gaming machines**

A number of jurisdictions — New South Wales, Queensland, and South Australia — have a scale of tax rates for gaming machines based on the level of revenue (gross profit) from machines. As shown in figures 19.8 and 19.9 tax rates (on additional revenue) increases as revenue increases. For instance in New South Wales clubs, the tax rate is 20 per cent on between \$200 000 and \$1 million, but rises to 25 per cent on revenue above \$1 million. This obviously has the effect of taxing venues with smaller numbers of gaming machines at a lower rate than larger venues.

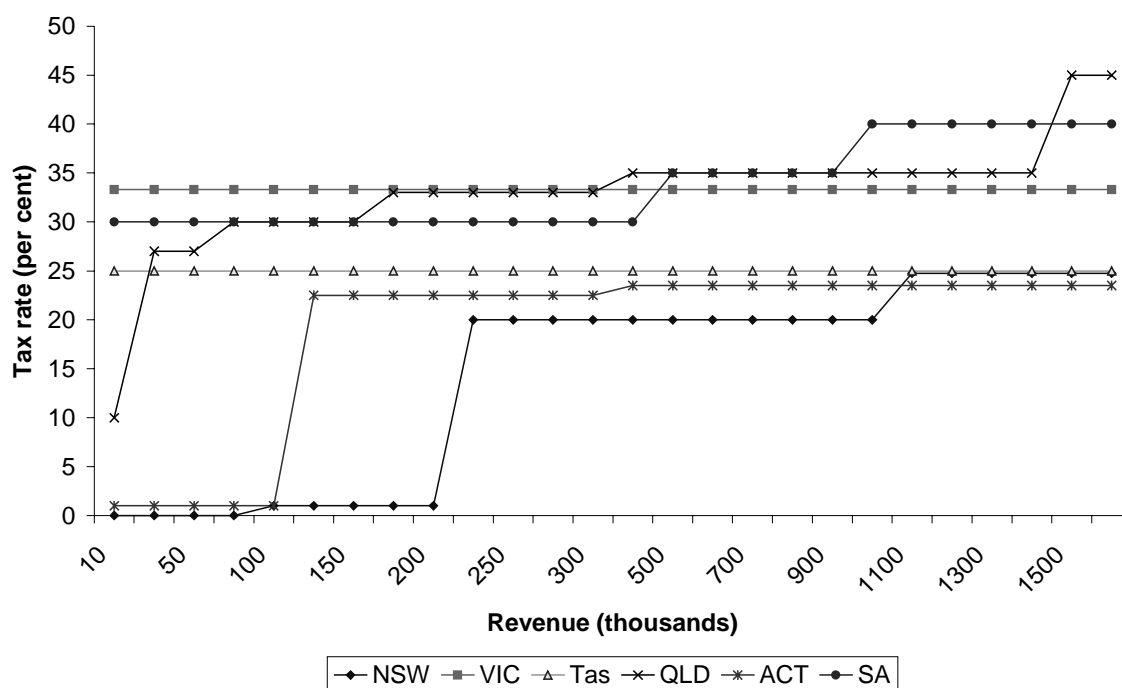
In terms of costs, aside from a revenue loss to government, the policy could serve to increase the penetration of gaming machines in the community. All small clubs

have a strong incentive to have a number of gaming machines since at low tax rates they will be highly profitable.

In the case of hotels, it is difficult to find a justification for providing tax advantages to smaller hotels relative to larger hotels. Consistent with the arrangements in most jurisdictions, taxing all hotels as a single rate would appear to be a sensible policy.

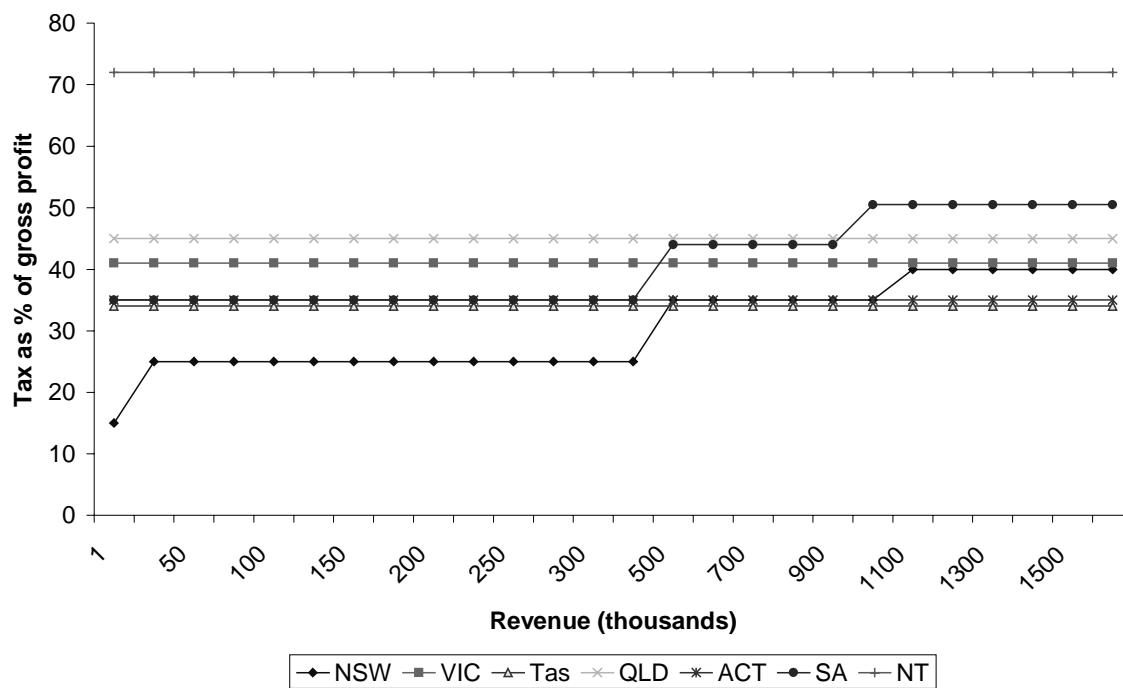
While there could also be some advantages in taxing all clubs at the same rate, any moves to uniformity would need to take account of the impact on smaller clubs — which often exist for specific community purposes — and the resulting impact on local communities. The taxation of clubs is discussed further in chapter 21.

Figure 19.8 Tax scales for gaming machines in clubs



Data source: NSW Treasury (1999).

Figure 19.9 Tax scales for gaming machines in hotels



Data source: NSW Treasury (1999).