Gambling Taxation in Australia

Julie Smith

Number 16 March 1998

THE AUSTRALIA INSTITUTE

Gambling Taxation in Australia

Julie Smith
Research Scholar
Division of Economics and Politics
Research School of Social Sciences
Australian National University

Discussion Paper Number 16 March 1998 ISSN 1322-5421

CONTENTS

	Acknowledgements	V
	Executive Summary	vii
1	Introduction	1
2.	A Sin, a Service, or a Fiscal Salvation?	2
	The conflicting roles of government in gambling	2
	Gambling taxation — 'fiscal monopoly-pricing'?	6
	Gambling 'market-makers'	9
	The balancing act	10
3	Australian Gambling Taxation	11
	Trends and patterns of Australian gambling taxation	11
	'Gambling wars' and fiscal stress	13
	The changing gambling tax base	16
	Gambling tax regimes and rates of taxation	19
	Tax regimes and scales	19
	Tax expenditures/subsidies	21
	The level of taxation on gambling	22
	State government reliance on gambling taxation	26
4	Is a Gamble on Gambling Taxes a Good Bet?	27
	The political appeal of gambling taxes	27
	Revenue bonanza or fickle financing?	27
	The robustness, stability, and elasticity of gambling revenues	27
	Robbing Peter to pay Paul?	30
	Are gambling taxes 'fair'?	31
	The distribution of gambling taxation — 'exploiting the tired and the poor'?	32
	'Tax-reform-avoidance' The regressivity of gambling taxes	32 34
	Are Australian gambling taxes regressive?	35
	The concentration of gambling expenditures	37
	The geographic incidence of gambling taxation	38
	Earmarking gambling taxes — a 'gambling-for-good-purposes' policy	39
	A 'voluntary' tax?	41
	Are gambling revenues economical? The efficiency costs of state gambling taxes	42 44
	Taxing economic rents in the gambling industry	44
	Gambling taxes as commodity taxes	45
	Ramsey pricing	46
	Gambling demand elasticities	47
	Uniform tax rates	48
	Collection costs of gambling revenues	48

		iv
	Taxes on sin and social costs	51
5	Government as Gambling Entrepreneur	53
	Are gambling revenues and regulations sustainable?	53
	The government gambling 'guarantor', gambling 'pusher' and gambling addict	55
	Government gambling revenue addicts in the eyes of citizens	58
	Is government encouragement of gambling a 'reform avoidance device'?	61
6	Conclusion: Curing 'Gambling Tax Addiction' and Preventing 'Public Revenue-Chasing Behaviour'	63
7	References	66
	Appendix 1	73
Lis	et of Figures	
	Figure 1: Gambling Tax as a percentage of Australian Taxation	11
	Figure 2: Gambling Share of Consumer Spending 1948–49 to 1994–95	12
	Figure 3: Real Gambling Revenues, 1972–73 to 1995–96	14
	Figure 4: Real Value of Payments to States, 1970–71 to 1996–97	15
	Figure 5: Real Gambling Activity, 1972–73 to 1995–96	16
	Figure 6: Australian Gambling Expenditure as a perecentage of Household Disposable Income, 1972–73 to 1995–96	17
	Figure 7: Tax Rate on Gambling, 1972–73 to 1995–96	
	Figure 8: Gambling and Economic Opportunity	28
	Figure 9: Volatility in Gambling Expenditure	29
	Figure 10: Lorenze Curve for Gambling Taxes, 1984	36
	Figure 11: Lorenze Curve for Gambling Taxes, 1994	36
Lis	et of Tables	
	Table 1: State and Local Government Share of Australian Taxation	13
	Table 2: Total Real Per Capita Gaming Expenditure, All States and Territories	16
	Table 3: Australian Gambling Expenditure as a % of Household Disposable Income, All States and Territories	17
	Table 4: The Composition of Gambling Revenues	18
	Table 5: Tax Rates on Gambling for Three Expenditure Bases	23
	Table 6: Gambling Tax Rates, 1972–73 to 1995–96	24
	Table 7: Gambling, Tax Rates, by State and Type, 1995–96	25
	Table 8: Gambling Revenues as a Percentage of State Taxation	26

33

Table 9: Average Tax Effort, 1991-92 to 1995-96

ACKNOWLEDGEMENTS

This research has been funded principally by the Australian Tax Research Foundation. Additional support has been provided by the Australia Institute Research Fund, the Interchurch Gambling Taskforce, Tasmanian Anglicare, South Australian Anglican Community Services and The Adelaide Central Mission.

I gratefully acknowledge helpful comments and suggestions by Dr Robert Albon, Ms Priscilla Binks, Justice Rae Else-Mitchell, Dr Brian Haig, Professor Keith Hancock, Mr Peter Hicks, Professor Jan McMillen, Professor Russell Mathews, Elizabeth Morgan, Professor John Quiggin, Ms Helen Sheppard and Dr Neil Warren on an early draft of the paper. Valuable assistance with research, typing and publication was also received from Kathryn Allen, Stephanie Hancock, Phan Dinh Thé and Kushum Shakya. Any remaining errors and omissions, or inadequacies are entirely my responsibility.

EXECUTIVE SUMMARY

Only 2% of national tax revenues come from gambling. But the ethics, economics, and fairness of gambling taxes are becoming a critical issue as 'the global economy' challenges the sovereignty of governments. The ever-narrowing range of revenue options has left state governments with little choice but to conform with nearby jurisdictions pursuing expansionary gambling policies.

Over the decade to 1996, Australian gambling activity and taxes more than doubled in real terms. Gambling now provides at least one of every ten tax dollars collected by state governments. All Australian states are now equally dependent on gambling taxation. The boost to revenues arose from governments promoting gambling, not raising gambling tax rates.

In spite of losing about \$500 million annually due to state tax competition and tax concessions over the last decade, state governments collected \$3.5 billion pa from gambling taxation in 1996–97. At least half these revenues result from state governments acting as 'gambling entrepreneurs', by legalising new, and more addictive forms of gambling since the mid 1980s.

Some would count the new alliance between gambling corporations and public treasuries as an economic gain. Consumer needs are being met. Gamblers 'willingly' pay \$72 billion a year for a gambling 'investment', or 'entertainment' opportunity. And governments have over \$3 billion a year of easy money that can be put to good use in times of rising pressures on public services and diminishing public revenue sources.

Gambling also acts as a 'safety valve' for economic insecurity, lack of opportunity and social tensions.

Surveys of gambling spending show over 80% of gambling spending is by heavy gamblers. Up to a third of Australia's \$3.5 billion gambling taxes may be from a mere 200,000 gambling 'addicts' and their families. Such gamblers lose thousands of dollars a year each on gambling, with thirty cents in every dollar to public revenue. They are disproportionately in low income households. As casinos and gaming machines become more accessible to lower income groups, the regressivity of gambling taxation worsens.

Offsetting the regressive burden of gambling taxation requires stronger progressive taxation, and reforms to state land, and other taxes. But as the early easy money tumbles in from a new gambling 'product', politicians have ample money for their pet spending programs. Treasuries are relieved of pressure to get hold of fairer, but more politically contentious tax dollars. Earmarking gambling revenues — the 'gambling for good purposes' approach — silences gambling critics and soothes public disquiet. With a couple of years grace before gambling dollars diminish, governments can contemplate new spending without tackling controversial issues of federal finance and tax reform.

Expanding gambling activities lets governments 'off the hook' in dealing with pressing social, fiscal and economic issues. Gambling revenues have become a 'tax-reform avoidance scheme' for Australia's state and federal governments.

Australian state governments know the long term growth of gambling heavy marketing to offset tendencies for gambling activity and revenue to decline over time. Public patronage of individual gambling products is short lived. Addicts and heavy gamblers, who are revenues, the limits their credit. reach of After the of dollars, gambling revenues dwindle. Governments have endorsed new forms of legal gambling to widen their revenue base since lottery and racing revenues began shrinking from the mid 1980s.

Gambling revenues can turn out to be a bad bet. The average revenue yield from gambling is diminishing as the new casino and gaming machine activity is lower-taxed.

The National Competition Policy intensifies the threat to the gambling tax base posed by competition for the gambling dollar. Once the safety of Internet and broadband network gambling is assured by government probity

checks, gambling at home will avoid tax. Replacing gambling taxes as part of a general Good and Services Tax also holds prospect of a \$2 billion pa loss of state government revenues. While specific gambling taxes and competitive auction of gambling licences might continue to extract economic rents from protected gambling enterprises, recent experience does not inspire confidence in the probity or competitiveness of the latter processes.

Like addicts 'chasing' gambling losses, governments get drawn into 'chasing' a continuous flow of gambling profit. They develop undesirably close financial and regulatory relationships with the gambling industry. Gambling regulation 'in the public interest' takes second place to protecting political reputations and public or private gambling enterprise profits. Measures to protect consumers and the public may be difficult to distinguish from measures underpinning the viability of gambling operations. Earmarking gambling revenues is a fiscal illusion, there being no evidence it assures special priority for particular programs. Earmarking does hide public financial support for certain gambling industry sectors.

Governments do not usually encourage high risk consumption activities, such as gambling. Most government advertising campaigns promote healthy lifestyles and advocate reducing consumption of addictive or unhealthy products. However the narrow range of acceptable state taxation options and the political advantage of encouraging gambling has produced unbalanced gambling policies. Revenue and economic considerations predominate at the expense of social concerns and public confidence in the integrity of government.

Protecting revenues by endorsing new forms of legal gambling, or marketing to widen their appeal draws in 'children, madmen or fools'. Energy and resources are diverted to ephemeral pursuits, and with uncertain long term economic results. Current gambling profit is substantially underwritten by gamblers debt, with around half of gambling spending drawn from savings, investments or borrowing. Underwriting the profitability of the gambling industry promises high costs for taxpayers, even aside from the budgetary costs of excessive gambling. (Estimates of the social damage from gambling in Australia range from hundreds of millions of dollars to more than \$3 billion.) But perhaps the greatest cost of excessive reliance on gambling taxes is the effect on citizens' trust of collusion between 'their governments' seeking revenue, and gambling corporations and shareholders seeking profit.

The essential issues of the gambling tax debate are Australia's federal system and ethics in public policy. That is:

- the decency of governments promoting a high risk activity in order to avoid levying more progressive but politically controversial taxes or reforming Australia's unbalanced system of federal/state finances, and
- the equity of promoting gambling entertainment and 'investment' opportunities to those whose work, savings and lifestyle options are being closed off by unemployment and declining public and private resources in local communities.
- governments' responsibility to show leadership and moderation in their fiscal enjoyment of gambling, without joining, or indeed encouraging, the gambling addict's chasing of illusory gambling profits.

1. INTRODUCTION

In recent years, there has been rising public concern at links between the growth of gambling and government gambling taxation. A perception of government dependency on gambling revenues gives rise to fears that governments promote gambling without balancing its revenue benefits against gambling's wider social and economic costs. Recent rises in government gambling receipts heighten concerns about their regressivity. There are fears individual state governments compete for gambling revenues at increasing cost to national revenues, while state government promotion and expansion of gambling may have effects

which undermine other businesses and weaken other tax bases. Any revenue benefits from higher gambling revenues could well be offset by the budgetary costs of dealing with additional adverse social impacts. Higher government gambling revenues may also come at the expense of heavy costs imposed on families, local communities and society as a whole. The recent High Court decision on state governments' franchise fees increases states' reliance on gambling revenues. As a tax on services, and an important part of state revenues, gambling taxation is firmly within the ambit of the current tax reform debate.

This paper sets out to critically review gambling taxation in Australia, in the context of federal state financial relations and tax policy debate. It examines the level, pattern and trend of gambling taxation in Australia, and assesses current gambling taxes against conventional revenue, distributional, and efficiency objectives of taxation. It also considers potential negative effects on other tax receipts, and the revenue cost of gambling tax concessions and subsidies. It then assesses the overall costs and benefits of state governments relying on gambling revenues as a taxation strategy.

Section two of this paper sets out a historical background and conceptual framework for government regulation and taxation of gambling, highlighting the likely conflict of interest between regulator and 'shareholder' in gambling profits, and tendencies to government involvement and monopolistic supply of gambling services. It also draws attention to characteristics of the gambling industry which led to governments stimulating or creating market demand.

The third section documents trends and patterns of gambling taxation in Australia, and the following section (section 4) assesses the revenue, fairness and efficiency effects. The fifth section overviews the wider economic and political issues arising from Australian, and overseas governments' recent role as 'gambling entrepreneur'. Finally, the paper discusses the implications for public policy of state government dependence on gambling revenues, including the place of gambling taxation in national tax reform. It suggests how government financial motivations to promote gambling might be prevented from overriding proper consideration of wider and long-term costs.

2. A SIN, A SERVICE, OR A FISCAL SALVATION?

Current trends in gambling taxation in Australia cannot be separated from the longstanding role of government as both regulator of, and shareholder in gambling enterprises. The economics of gambling and gambling taxation is also permeated with issues of regulation, restricted supply and monopoly. To place gambling taxation in appropriate context and to sketch a broad framework for analysis, this section briefly outlines the history and nature of gambling regulation and activity.

2.1 The conflicting roles of government in gambling

Since ancient times, governments have regulated the extent and conditions under which gambling is permitted. Governments also developed an early financial interest in legalising gambling, realising that certain forms of gambling were a productive base for taxation. These dual roles of government as a social guardian, and as a gambling operator, place it under conflicting pressures to both encourage and discourage gambling.

A leading Italian public finance expert, de Vito de Marco, highlighted the fundamental policy contradiction in his 1930s text, *First Principles of Public Finance* (1936):

'the gambling of some people is punished for the purpose of maintaining public morality, and the gambling of others is legalised for the purpose of obtaining a public revenue. This contradiction is sharpened by the very form of the monopoly; for the monopoly unites, in the person of the State, the agency which is called on to combat the vice, with the one which derives profit from it'.

Opposition to public lotteries as a source of revenue derived from the tensions of this situation:

'the State participates in private gambling, becomes a gambler, as well as the exclusive and perpetual hold of the bank; this, more than anything else, offends one's sense of what is called for in morals and law. There is a fiscal stake involved; this predominates, and paralyses any attempt at repression by the public authorities.'

Like some present day economic and public finance commentators, de Vito de Marco saw excessive gambling as ultimately economically destructive. While from an economic point of view gambling provided 'the satisfaction of a want':

'[it] ends by becoming an unproductive occupation which permanently distracts the gambler from any kind of work; and for this reason it is economically advantageous that the tendency to gamble should disappear'.

Also in accord with some recent social and political analysis, de Viti de Marco found the root cause of gambling to be an unsatisfactory social and economic environment. The causes of gambling were found in habits, 'bred by idleness and disorder, in the hope for easy gains without working for them, in ignorance, and in small reliance upon getting ahead through labour and thrift'.

Under de Viti de Marco's ideal approach, economic and social progress would eliminate these causes, and the attenuated tendency to gamble would make gambling enterprises unprofitable. The state would hasten this trend by raising the 'price' of gambling beyond that which would maximise profit, 'with the definite intention of discouraging gambling'.

De Viti de Marco footnotes the possibility that the revenue interest of the treasury might take policy in the opposite direction, of 'incit[ing] people to gamble by diffusing gambling booths throughout communities who did not ask for them and even in communities whose authorities opposed their introduction. The author, in his long experience as a Deputy, has known of cases of the latter type'.

While some opposition to gambling is religious or 'moral', disquiet has generally arisen from its significant costs to society. Apart from the effects on individual gamblers of excessive gambling, other adverse

consequences of widespread gambling activity have been identified. The potential threat to 'public morals' and the integrity of government and political decision making processes have also emerged as key issues in recent years of government 'gambling entrepreneurship'. Opponents of gambling also cite the regressivity of gambling losses and taxation, and the high costs of administering gambling taxation and regulating the gambling industry to limit criminal involvement and unfair practices.

De Vito de Marco cites such concerns as deriving from the juridic-moral theory of gambling policy, 'which is absolutely contradictory to the economic-fiscal theory'.

From the latter standpoint, gambling is innate in human nature, exists in fact, and demand is better moderated by legalisation than by prohibition. Meeting consumers' demand to gamble creates an economic benefit by providing a form of entertainment which the public values (Brinner and Clotfelter 1975). 'If the theatre- or cinema-goer pays a tax, it is difficult to understand why gamblers should enjoy a fiscal privilege' (de Vito de Marco 1936). Legal gambling may produce positive social externalities by reducing illegal gambling and income for criminal organisations, and tax evasion through illegal gambling (NILECJ 1977; Johnson 1985). This is the approach taken by Rubner (1966). Legal gambling also provides a productive source of revenue, able to be put to good use on behalf of the community. By restricting provision of gambling, governments create a revenue base through a 'fiscal monopoly'. As a so-called 'voluntary' tax, gambling taxes produce less taxpayer resistance and unpopularity than other taxes. Rubner found it inconceivable that the government's fiscal stake could lead it to promote or encourage gambling.²

With complex underlying tensions deriving from the above contradictory approaches to gambling policy, it is unsurprising that Weinstein and Deitch's (1974) historical and economic analysis of United States (US) gambling policy found several diverse and inconsistent objectives. The main objectives had been:

- generating revenues,
- reducing illegal gambling; and, to a lesser extent
- providing entertainment, and
- minimising effects on other forms of legalised gambling.

The study concluded that sound policy was complex. Some forms of gambling were also more likely than others to attract potentially excessive gamblers. It warned that if a government came to depend on gambling revenue, it might lose the ability to restrain promotional activities. Legalisation should be limited to relatively benign forms

• loss of interest and participation in religious and civic affairs;

Weinstein and Deitch (1974) summarise possible adverse social effects of gambling as:

[•] increased total gambling activity and participation in illegal gambling ventures;

[•] loss of interest in family and friends;

[•] abdication of familial support and other obligations resulting in marital breakdown, divorce, and non-support;

[·] increased health care costs including of families;

[•] lost income, loss of interest in work and advancement and a reduction in work productivity and self-improvement efforts, increased work absenteeism;

[•] increased poverty, bad debts, bankruptcy and involvement with usurious money lenders;

transfers (bailout by families, government or welfare agencies)

[•] increased crime, fraud, opportunities for money laundering, and costs of criminal justice, prosecution and incarceration of gambling related crime

[•] increased crime, drink driving and other socially undesirable activities in the location of gambling venues

[·] suicide.

² Gambling policy in the UK has been distinctive for its approach of catering to unstimulated demand. Unlike in federations such as the US, Canada, and Australia, competition between jurisdictions for revenues is not a feature of gambling policy in the UK, where a unitary form of government centralises virtually all revenue raising functions.

which also achieved law enforcement, revenue or other objectives. The appropriate role of government varied with the type of gambling and the objectives sought, an approach supported by later research. Highlighting another important tension in gambling policy, Weinstein and Deitch also found legalisation increased overall gambling participation, and certain forms of legal gambling substituted for others. Where there was broad legalisation of gambling, it would saturate the gambling market. NILECJ (1977) identified similar, and conflicting objectives of US gambling policy: revenue, amusement, and depriving criminals of profitable activities. The author argued for a single, non-revenue objective in gambling policy—governments should either 'service public demands for risk', or direct gambling policy at 'displacing the mob'. It was desirable to return all revenue above expenses as prizes, so that 'politicians would lose their financial stake in the lottery's success'. This would allow governments and gambling authorities to 'resume their policy balancing role'.

Commenting on Australian gambling tax policy during the 1980s, former state treasury official and tax economist, Reece (1984) questioned whether Australian state governments were following the 'ideal' policy. He pointed to the contemporary increase in the range of legal gambling games, the greater promotion of gambling by media advertising and the changed nature of TAB shops. Emphasising the conflicting considerations in whether the state should encourage gambling, Reece quotes de Vito de Marco on the competing ethical and social, or financial and economic considerations: 'the latter position leads to the logical result off recognising the right to gamble; the former position leads to a complete denial of that right'.

According to the analysis by de Vito de Marco (1936), the solution was a compromise, that would differ in different times and places depending on which of the two elements of the problem predominated. The 'ideal' policy would reconcile the conflict of philosophy by encouraging economic progress (which would eliminate the causes of gambling), and the state levying gambling taxes (at levels set with the definite intention of discouraging gambling).

The most recent comprehensive survey of gambling policy is Clotfelter and Cook (1989), who examine lotteries as representative of gambling policy generally. These authors found that marketing was essential to running a profitable modern lottery. Government gambling enterprises acted more like businesses than public agencies. Such an orientation produced a focus on ensuring the integrity of the game, and on maximising revenues. The authors characterise the choices of gambling tax policy as 'Sumptuary', 'Revenue', or 'Consumer' oriented, representing different concepts of how gambling policy should serve the public interest, and with different implications for gambling promotion. These different models offered choices for policy, for example regarding the extent of promotion, advertising, or product line, payout rates and taxation revenues, and regulation of marketing.

The authors argue that with interstate competition and other pressures reducing governments' ability to maintain a Revenue monopoly, a changed focus to a 'Consumer' model had the likely advantage of ending misleading and subversive advertising and promotion driven by a Revenue focussed government. A policy favouring a competitive (Consumer) market in gambling was consistent with high Revenue if tax rates could be kept high enough.

While public provision affected the extent of marketing and taxation, the implication for whether government itself should be involved in gambling provision was not clear cut. In principle, 'Sumptuary' objectives were best met if it the enterprise were state run or a tightly regulated monopoly. A 'Consumer' or 'Revenue' purpose was consistent under either private or public provision, although there were advantages to private provision in distancing the government from its Revenue purposes (ie, meeting Sumptuary objectives). Clotfelter and Cook

³ Prohibition, government operation, licensing of private enterprise, and unregulated legalisation of specific forms of gambling were all appropriate under various circumstances. Discussing casino regulation (Eadington 1987) likewise argued for a sophisticated approach which distinguished the types of gambling in developing regulatory policy, noting the higher risk nature of casino and gaming machine gambling.

⁴ See also Rychlak (1992), Clotfelter and Cook (1989), Kaplan (1984), NILECJ (1977), and Pinto and Wilson (1990). The literature suggests legalising off-course bookmaking reduces illegal race betting, but legal lotteries have little effect on illegal games. Haig (1985b) suggests illegal gambling declined in Australia from the 1920s, although noting his estimates are very tenuous. In the thirties the introduction of off course betting in some states and TAB in Victoria aimed at reducing illegal betting as well as restoring racecourse incomes and government revenues after declines during the Depression. In South Australia, during the 1960s, new bettors were estimated to account for 20–25% of betting when TAB was introduced.

⁵ It also concluded that different types of gambling should be distinguished.

identify better control of fraud and reduced risk of corruption under monopolistic public provision, a conclusion consistent with the Chapman, Beard et al. (1997) review of gambling regulation in Victoria.⁶ As a consequence of such conflicting roles for government in gambling policy, the history of gambling regulation is one of swings from prohibition to deregulation to reregulation, as 'revenue' or 'consumer' considerations came from time to time to predominate over social or sumptuary implications, and vice versa.⁷ After problems with fraud and excessive gambling during the nineteenth century, many governments moved to prohibit and tightly restrict gambling in the interests of 'consumer protection' and 'public morality'. Gambling revenue-raising devices also fell out of favour as more dependable taxes, and more sophisticated public finance structures and capital markets evolved (Stocker 1972; Rychlak 1992).

However, the growth of illegal gambling was a force for liberalisation of gambling during the first half of the 20th century. In the most recent four decades state governments

in the US, Canada and Australia developed renewed interest in permitting gambling, dominated by revenue objectives. This resulted from increasing fiscal centralisation and financial stress among state and municipal governments, and less hostile public attitudes towards gambling. New forms of legal gambling, notably, state sponsored lotteries and off-course (TAB) betting emerged in Australia around this time, and in many other jurisdictions during the 1970s and 1980s.

Since the 1980s gambling policy has become very controversial as state and provincial governments have facilitated the spread of gaming machines and casino gambling as part of tourism-based development strategies, and to create new sources of government tax revenue.

Recent Australian regulation of gambling has focussed mainly on preventing criminal elements from permeating the industry. In practice this has meant strict assessment of potential casino operators to limit casino ownership and management to 'respectable' elements. Governments in Australia have tended to give little attention to the wider social costs and impacts of gambling. Existing regulatory policy has been characterised as predominantly industry protection rather than consumer or social protection (McMillen 1996a; Chapman, Beard et al. 1997). Eadington (1987) concluded that Australian casino policy had come to focus on shaping a favourable investment climate for gambling activity, rather than protecting citizens from gambling excesses. Based on the experience in the US, revenue imperatives would increasingly dominate social concerns as profitability inevitably diminished from initial levels.

Henriksson (1996) concludes from Canadian experience that the diverse and conflicting goals of gambling policy make effective regulation of casino gambling virtually impossible. Pressures to maximise the tax proceeds from gambling placed irresistible pressures on governments. Once governments or non-profit groups have become dependent on gambling revenues, 'saying no is a difficult enterprise'.

Likewise McMillen and Eadington (1986) show that prior to the 1940s, Australian state governments acted as arbitrator between the competing interests of gambling consumers, the gambling industry, and those with moral or social concerns. However, in recent decades, Australian gambling policy had shifted away from this mediating role, to an unbalanced focus on industry and public revenue objectives.

2.1 Gambling taxation — 'fiscal monopoly-pricing'?

In very few jurisdictions has government allowed gambling to operate in a 'competitive' market.⁸ As well as there being aspects of gambling that may lead naturally to monopolistic provision, government regulation has restricted competition in providing gambling services.

⁶ The authors conclude that limiting competition in gambling made easier the surveillance and control of gambling.

⁷ Rubner (1966) surveys the evolution of modern gambling with a focus on Europe, as does Holloway (1973) in lesser detail. For the US, detailed histories of gambling law and policy are set out in Weinstein and Deitch (1974), Rychlak (1992), NILECJ (1977), Johnson (1976) and more recently Clotfelter and Cook (1989). Eadington (1984) is an analytical survey of the modern evolution of casino gambling in Nevada and Atlantic City, while Goodman (1995) details the recent spread of casino gambling throughout the US. A summary of recent gambling policy history in Canada is in NCW (1996), and also Black (1995). Johnson (1976) reviews the history of Canadian and US lotteries. For Australia, Haig (1985b) provides a statistical overview, while McMillen (1986) analyses changes in gambling policy in Australia. Alchin (1989) provides a perspective on Australian gambling taxation, through a historical survey of the NSW lottery, while Johnson (1985) provides a statistical and economic review of postwar Australian gambling revenue policy to the mid 1980s.

⁸ See NILECJ (1977). Eadington (1984 and 1987) analyse the Nevada gambling industry as an example of essentially unrestricted gambling.

Monopolistic provision may serve 'sumptuary' objectives of limiting the extent of gambling and thereby controlling its social costs. Monopolists have a natural tendency to restrict supply as a way of maximising profit. While this is usually socially inefficient, the restraint on supply may improve efficiency if it limits provision of a social 'demerit' good (Musgrave and Musgrave 1989, 580). The fiscal monopoly created for the state when the law forbids gambling may therefore also further social goals (de Vito de Marco 1936).

Some argue that protecting an existing fiscal monopoly is now the primary motivation for governments regulating gambling activities (Sylvan and Sylvan 1985). The optimal pricing strategy for the fiscal monopolist is to charge 'what the market will bear', that is, different prices to different markets or consumers, with higher rates on forms of gambling which are least responsive to price changes, and vice versa. Monopoly pricing of gambling products is analytically equivalent to an excise tax on gamblers (Stigler 1988, 573; Quiggin 1985). The analysis by Brinner and Clotfelter (1975) of implicit taxation through state-run lotteries argues that the most appropriate model for economic analysis of these gambling enterprises is that of monopoly, where monopoly profits are called tax revenues, and illegal gambling is a substitute. 10

Livernois (1987) reviews the Canadian lottery industry in the same monopoly framework, identifying barriers to entry (as unlicensed lotteries were prohibited by the criminal code), and collusion among suppliers in the Canadian lottery industry. Restricted competition permitted monopoly prices to be maintained in the form of uniformly high takeout rates.

Guthrie (1981a) applies the monopoly model to the parimutuel racing industry, arguing that the state maximises revenue by effectively establishing the price of the industry's product. In Guthrie (1981b), the same author extends the analysis to the casino industry, showing that where casino gambling demand is inelastic, the state revenue benefits from a higher, more stable price and a lower level of competition. However, competitive pricing behaviour in the casino industry and elastic demand results in unstable tax revenues, so if demand is elastic the state may gain revenue by lowering the price.¹¹

Suits (1979b) argues state receipts from gambling are economically identical to an excise tax, with the revenue potential derived from inelastic demand due to state monopolisation of gambling, or restrictions on alternative sources of supply. The state exercising its monopoly pricing powers undermined attempts to reduce illegal gambling, which was a 'substitute' gambling product.¹²

As well as giving effect to varying objectives, the pervasive role of government in regulating and restricting gambling activity takes varying forms. ¹³ Some jurisdictions have legislated for the state to have virtually

- · low investment
- · low operator risk
- · high net profit
- short set up time

⁹ Taxes on the profit income of monopolistic enterprises are likely fall on the operator who theoretically cannot shift the incidence of the tax (Musgrave and Musgrave 1989, 265).

¹⁰ Martin and Yandle (1990) analyse gambling regulation as a 'duopoly' of state and illegal operators, where illegal operators made room, or the state expands the market for both with a sharing of monopoly profits. The two operators divvy up the market by differentiating their product, and with the state maximising its revenues through legal barriers to market entry.

¹¹ Guthrie argues that to stabilise revenues, the state must regulate the casino industry as strictly as it regulates the parimutuel industry and establish the price of casino gambling. However, this was judged to be unlikely.

¹² Sylvan and Sylvan (1985) and Quiggin (1985) make a similar point about the conflict between monopoly profit taking, and opportunities for illegal gambling. The former argues that such a monopolistic role is unethical.

¹³ Whether gambling operations are best run by the state or by private enterprises remains open to debate. Rubner (1966) for example, has argued for state operation of all gambling enterprises, on the grounds that it is repugnant for human frailties and vulnerabilities to be exploited for private profit, and because state ownership is the most efficient means of maximising gambling revenue. He suggests high gambling taxation because of the relatively low efficiency costs of raising revenue from gambling compared to existing high taxes on income and wealth. On the other hand, Stocker (1972) argues against state involvement in any gambling enterprise, essentially on the grounds that it corrupts its role as a regulator of gambling in the public interest. According to Weinstein and Deitch (1974), public involvement in gambling operations was best suited to operations with

xvi

exclusive rights to conduct certain forms of gambling, notably lotteries. Other times, public monopoly rights over legal gambling are assigned to private operators in various ways (Quiggin 1985), such as through exclusive licences issued to casino or poker machine operators, or other restrictions on competition. ¹⁴ Likewise, government revenues may benefit from a fiscal monopoly either through the profits, dividends or surplus revenues of state-operated gambling enterprises such as TAB or lottery, or as licensing fees and taxes on profits or turnover of private gambling operations. ¹⁵

While many authors assume monopolistic conditions in the gambling industry are due to government regulation, there are also factors conducive to monopoly in the nature of the industry or gambling demand. Because gambling is an industry especially prone to criminal involvement, cheating and fraud, consumer protection has been an important motive for regulating gambling activities. *The Spectator* made the point succinctly:

'Gambling is a fool's game, and though it is not the business of the state to restrain all fools from folly, it is its business to protect fools from undue exploitation for gain by the astute'. (quoted in Rubner 1966, 77)

Reducing the cost of regulation is also an element in limiting the number of gambling enterprises. A smaller number of operators makes surveillance and control easier and less costly.

This motivation for regulation and limiting competition in gambling has had particular application in the case of lotteries with the extent of fraud and corruption in private lotteries leading as noted above to their prohibition in many countries last century. A key feature of modern state run lotteries has been their scrupulous honesty (Clotfelter and Cook 1989; Rubner 1966, 77). Governments also closely regulate racing and gaming activities to ensure games are 'fair', reducing the risks of consumers being tricked or exploited by dishonest operators. Another reason for the tendency for concentration in the provision of gambling services, whether by government or private operators, may be the existence of economies of scale, in either provision or consumption. While establishment or fixed costs may be high for some gambling enterprises or products, per unit costs diminish as supply increases. A number of authors point to the role of declining marginal costs of gambling operations in creating a natural monopoly in some gambling products. Eadington (1984) notes the importance of economies of scale in the casino gambling industry, as larger operations could offer greater variety of games and non-gaming services to attract a larger and more productive clientele.

Cook and Clotfelter (1993) also identify scale economies in the consumption of lotto games because consumers prefer high jackpots almost irrespective of odds.

High risks, and the resulting need for a large capital base, has also been suggested as the reason for the concentration evident in English football pools (Rubner 1966). Such factors may also apply to the supply of casino gambling, as is reinforced by the recent incorporation of casino gambling into operations of large international tourism corporations (McMillen 1985). Eadington (1984) notes that restrictions on access to capital were important in the structure of the Nevada gambling industry.

2.3 Gambling 'market-makers'

The overall 'market' for gambling may be relatively fixed in the short term by legislation and a limited number of consumer gambling dollars. The potential for substitution between various types of gambling, including illegal gambling, sets limits on a government or private

- · low social problems
- few law enforcement problems
- and few control problems.

¹⁴ See Chapman, Beard et al. (1997) for examples in Victoria.

¹⁵ Quiggin (1985) observes that where gambling rights are assigned to private interests, governments tend to underestimate their commercial value. Indeed, commentators in the US have observed the phenomenon of intense pressure on governments to legalise new casino gambling operations as corporations realised the enormous profits from being the first operator in a new gambling jurisdiction (Thompson and Gazel 1996).

¹⁶ While reducing the likelihood of fraud, trickery or exploitation of gamblers, government regulation which reduces its risk will tend to increase the prevalence of gambling. As regulation of the fairness of games, and measures to ensure the probity of operators serve the interests of consumers, operators and treasuries alike, it may be difficult to distinguish one motivation for monopoly from another.

gambling operator's ability to set monopoly prices and extract revenues from a particular gambling product.¹⁷

As a recreational activity, gambling also requires continuous innovations or marketing to maintain consumer interest (Weinstein and Deitch 1974; Johnson 1976, 1985; Clotfelter and Cook 1989; Rychlak 1992; Haig 1985b; Haig and Reece 1985). Even for a single gambling product, cutting gambling taxes to stimulate demand may risk overall loss

in revenue unless demand is very elastic (Clotfelter and Cook 1989). Overall revenues may not benefit if gamblers switch from one form of gambling to another. Rather than cut prices/ taxes, governments may therefore embark on new forms of gambling, using advertising and other promotion strategies, or varying the prize structures, effectively altering the 'quality' and range of the product (Haig and Reece 1985). The existence of such 'product life-cycles' in consumer demand for gambling — and in government gambling revenues — appears an important reason governments find it difficult in practice not to get drawn into promoting gambling, rather than just taxing unstimulated demand (Henriksson 1996; Alchin 1989; Haig and Reece 1985). As the novelty wears off, the cost of raising an additional dollar of gambling revenue also rises because of higher advertising and marketing costs. This is especially the case if there are competitive pressures from neighbouring jurisdictions to retain business by cuts to tax rates.

Clotfelter and Cook (1989) show that because of the monopoly structure of the industry, the lottery operator finds it difficult to increase market share and instead focuses on enlarging the market, through active promotion and marketing.

As well as using price or marketing and promotion to compete for gambling 'market share', governments seeking to boost revenues may also expand the market by easing gambling regulations. However, because some new gambling dollars are drawn from existing gambling products, this may result in diminishing marginal revenue returns from gambling as the gambling market becomes saturated (Weinstein and Deitch 1974).²⁰ If the prevalence of problem gambling rises as activity expands, these diminishing marginal benefits to revenue might coincide with rising social or even budgetary costs of excessive gambling. This possibility is increased where increments to revenue come from liberalising access to more addictive or socially harmful types of gambling.

2.4 The balancing act

As in most areas of public policy, the difficulty is in balancing a number of competing considerations. The key issues for gambling policy are whether any reduction in illegal gambling, wider recreation opportunities, and higher public revenues justify the social, ethical and economic damage gambling may cause. The following two sections (sections 3 and 4) evaluate Australian gambling taxation from a public finance perspective, while section 5 returns to these issues of conflict between social, fiscal and economic objectives of gambling policy.

3 AUSTRALIAN GAMBLING TAXATION

¹⁷ Taxation of legalised forms of gambling adds to any price advantage for illegal gambling (Quiggin 1985; Sylvan and Sylvan 1985; Rychlak 1992)

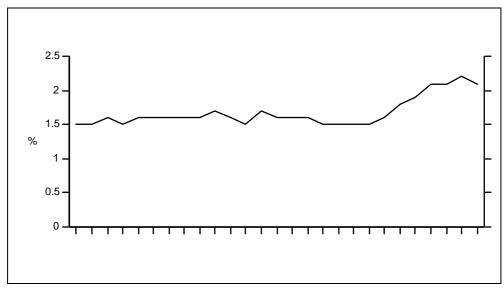
¹⁸ More recently, gambling has been marketed to consumers as part of a tourist or entertainment resort package (Robinson 1997; McMillen 1985; Lorenz 1996).

¹⁹ For example, Alchin (1989) documents the declining net return to NSW lotteries due to rising promotion costs.

²⁰ After analysing the characteristics of different gambling games, Weinstein and Deitch (1974) conclude that some forms of gambling are close substitutes for each other, while some are not. Also the odds of winning matter more for some types of gambling where the likelihood of winning is greater than for others, where the attraction of gambling is little affected by the odds. That is, the price elasticity of demand or responsiveness of demand for a specific gambling product to price or tax level changes (usually measured by takeout rates) is likely to vary for different games, even if demand to gamble as a whole may be fairly price inelastic.

3.1 Trends and patterns of Australian gambling taxation

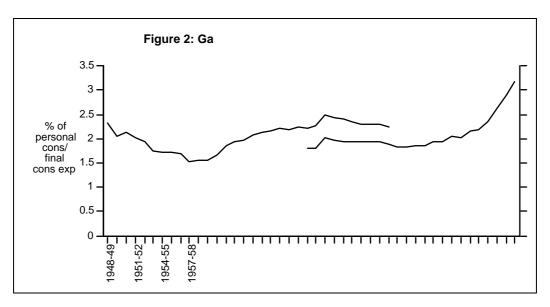
Although insignificant in Australia's overall tax system — a mere 2% of national revenues — gambling taxes are increasingly important to Australian state governments (Figure 1). In the last five years, states have become increasingly reliant on gambling revenues to meet demands on their budgets, collecting \$3.5 billion, or 11%, of their taxes from gambling in 1996–97. Searching for new revenues and jobs, most states have licensed gaming machines and casino gambling for the first time during the last decade. Fiscal pressures have drastically altered state governments' approach to gambling since the 1980s, forcing greater uniformity in gambling policies. The dramatic expansion in gambling revenues reflect this expansion of gambling activity, rather than higher tax rates on gambling. Stable for two decades until the 1990s, real per capita gambling expenditures nearly doubled, to over \$700 pa, during the last five years.



Sources: ABS 1997b; Alchin 1989.

The role of gambling taxes in Australia, and their recent growth, parallels develop ments overseas. For example, gambling taxes were around 1-2% of national tax revenues in other developed countries during the 1960s, and lotteries were of a similar importance to Australian state governments as in the US in the mid 1980s (Rubner 1966; Clotfelter and Cook 1987). Likewise, state and provincial governments' determined pursuit and expansion of gambling revenues during the 1980s and 1990s has reflected similar forces and raised similar issues in the US and Canada as in Australia (The Economist 1997; Madhusudhan 1996; NCW 1996; Lorenz 1996; Grinols 1995; Black 1995; Goodman 1994, 1995; Clotfelter and Cook 1989). Historically, trends in taxation revenues from gambling in Australia have reflected state legislatures' attitudes to legalised gambling and responses to illegal gambling, rather than exogenous changes in the tax base or changes in tax policy. Other entertainment activities such as motoring, bowls, and illegal betting drew consumer interest away from gambling, becoming cheaper as well as more accessible in the earlier post-war period (Haig 1984, 1985a, 1985b). Legal gambling remained around 2% of personal consumption expenditures for several decades between 1920-21 and 1980-81.21 As an entertainment under continuous challenge from new recreation and leisure activities (Haig and Reece 1985), gambling and state revenues from gambling diminished during the 1950s, a pattern also evident during the 1980s as interest in racing and lotteries waned (Figure 2). The long term stability of gambling in household budgets suggests its stable and limited natural appeal to consumers unless stimulated by marketing or changes in legislation.

²¹ See Haig 1984. Official statistics compiled since 1972–73 show similar trends to Haig's during the 1970s (TGC 1995).



Sources: Haig (1984), Tasmanian Gaming Commission (1997).

Until states lost control of income taxation after 1942, gambling taxes had been an insignificant share of state government taxation, ²² as in the US. As wartime taxation arrangements became entrenched from the early 1950s, several states responded to the loss of income tax revenues by introducing state lotteries. State governments played an increasing role as gambling 'entrepreneurs' from the 1960s, with gambling policies aimed squarely at maximising public revenues (McMillen and Eadington 1986). This represented a fundamental change in Australian state governments' attitudes to gambling, which had previously been directed primarily at curtailing illegal gambling through legalised competition (Haig 1984, 1985b; Quiggin 1985; ACSSA 1997). According to McMillen and Eadington (1986), Australian gambling policies until the 1960s reflected British policy principles of catering to unstimulated demand, distinguishing between forms of gambling, and strictly regulating to control crime.

During the 1960s, state governments maintained existing gambling revenues by initiating new legal gambling ventures, such as new lotteries. The popularity of jackpot lotteries helped increase gambling revenues to 11% of state taxes during the 1970s. Real gambling turnover remained relatively stagnant, reflecting declining interest in lotteries and the continued downward trend in racing betting.

However, with relatively generous Commonwealth grants during the 1970s, states had eroded their major tax bases by granting various concessions and exemptions, notably for land and payroll taxes, and abolishing estate and gift duties.²⁴ 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 (Mathews and Grewal 1997, 750). 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 (Table 1).

Table 1: State and Local Government	ent Share of Australian Taxation
Year	%
1958–59	17
1975–76	21
1981–82	19

²² Gambling taxes accounted for 2–3% of state taxes before World War II (Smith 1993). In the immediate postwar years, there was a sharp rise in gambling associated with limited consumption opportunities and high disposable incomes. With state governments still adjusting their taxation policies to the loss of income taxation, gambling revenues temporarily rose to around 15% of state revenues in 1948–49. However, this was a transitory effect of the post-war consumption boom, not a reflection of contemporary taxation or gambling policies.

²³ For example, legal off-course betting (TAB) was introduced to reduce illegal betting, as well as defend racing clubs against declining interest in racing.

²⁴ NSW also substantially reduced its heavy reliance on gambling revenues.

1985–86	20
1989–90	21
1996–97	24

Source: ABS 1997b; Smith 1993.

By the early 1980s, both gaming and racing revenues were declining in spite of initial rapid increases from new games like Lotto and Instant Lotto.

Permitting the spread of previously prohibited forms of gambling bolstered state gambling revenues (Figure 3). From the mid 1980s, casino gambling was licensed on the mainland, and by the early 1990s, a number of states were removing prohibitions on gaming machines. The licensing of casinos in Queensland, South Australia (SA) and Western Australia (WA) in 1985–86,²⁵ was followed by the introduction of gaming machines in most states. Gaming machines spread from New South Wales (NSW)²⁶ to Victoria from 1990–91 as a number of other states licensed gaming machines in clubs and hotels for the first time. More recently, declining profitability of casinos with the opening of the Victorian and NSW casinos has led to easing of restrictions on casino gaming machines, such as in the ACT.

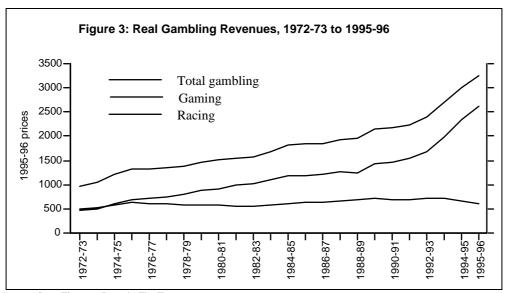
'3.2 Gambling wars' and fiscal stress

In North America legalisation of new gambling forms since the 1970s emerged from the financial stresses experienced by state or provincial governments due to recession, local 'tax revolts', and tighter federal fiscal policies. Poorer states moved first, and the drain of revenues out of neighbouring states produced a defensive response by other states who legalised lotteries or casino gambling to prevent a drain of revenue or jobs to neighbouring jurisdictions. State competition for gambling revenues and defensive introduction of gambling — characterised as 'gambling wars' — have become the primary force for the spread of gambling in the US.²⁷ Although total gambling activity has expanded as a result, the growth in total revenues has been limited by state government tax competition (Stover 1990; Borg, Mason et al. 1993).

 $^{^{25}}$ Tasmania introduced its casino during the early 1970s, with the ACT in 1992–93, Victoria (1994–95) and NSW (1995–96).

²⁶ NSW had introduced poker machines in 1956 and the ACT in 1976. Queensland in 1991–92, and SA in 1994–95

²⁷ See for example, Suits 1977b; DeBoer 1986; Rose 1986; McMillen and Eadington 1986; Peppard 1987; Filer, Moak et al. 1988; Clotfelter and Cook 1989; Stover 1990; Rychlak 1992; Jackson, Saurman et al. 1994; Henriksson 1996.



Source: State Finances Branch, The Treasury

Fiscal pressures and 'gambling wars' have also been a force for expanding gambling in Australia, with a 27% fall in the real value of general revenue grants since the mid 1980s (Figure 4). Virtually all states have expanded gambling activity as one of their few autonomous tools of revenue policy.²⁸

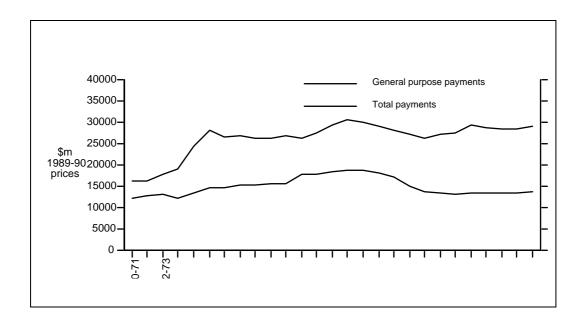
Such resort to gambling revenues is not unusual. In the past, Australian and other governments have often turned for gambling revenues in times of economic difficulty. For example, financial difficulties during the 1930s Depression pressured some states to introduce state lotteries (McMillen and Eadington 1986; Haig 1985b), thereby limiting controversial increases in existing land and income taxes.

Historically too, the less affluent, least developed Australian states such as Tasmania and South Australia have typically led the way in introducing new taxes, driven by inadequate revenues from the old (Smith 1993). The cash-strapped Tasmanian government was enticed to profit from a lottery as early as the 1890s, while its casino opened in 1973, over a decade before those in other states, following a successful High Court challenge to its tobacco consumption tax. In the same way, the first states to expand casino gambling as

the decline in real revenues from the Commonwealth began to bite from the mid 1980s, were the poorer, less developed states of South Australia, Western Australia and Queensland.

Recently, defending revenues from legalised gambling in other states has been a consideration in the spread of casino and gaming machine operations in a number of Australian states (Alchin 1989). For example, NSW poker machines have long been seen as a drain on revenues from Queensland and Victorian border towns, a consideration in the licensing of gaming machines in those states in the 1990s (AIGR and IRU 1995), while Victoria's casino responded to prospective and actual casino legalisation in NSW and SA. The 1988 Tax Task Force advocated introducing a casino in NSW as a measure to protect the state's gambling revenues from the prospect of Australian Capital Territory (ACT) casino gambling (Collins, Hunt et al. 1988).

²⁸ An additional factor may have been Commonwealth Grants Commission (CGC) procedures for identifying how grants to states should be shared. The CGC uses household disposable income as a a proxy for state gambling tax capacity (1993, 109–29), which in principle, avoids differences in state gambling policies affecting CGC measures of tax capacity. However, if the propensity to gamble varies systematically between states due to differences in socio-demographic factors, this measure may disadvantage states with a 'antigambling culture', and advantage states with a population favourably disposed towards gambling. US research shows this may be the case, with income as a less important predictor of per capita gambling expenditure than factors such as education, occupation, religious denomination, urbanisation, or ethic and racial composition. While in the past, the CGC made adjustments to the household income base in the case of SA, it did not for any other states, and the practice was discontinued. Some states have continued to question the use of income to assess gambling tax capacity. The methodology has the potential to pressure some states into actively promoting higher gambling activity.



Although licensing new gambling activity brings in new revenues, governments have been pressured to reduce their tax rates as gambling competition has intensified and profitability declined (McMillen 1996b). Such state government rivalry over gambling revenues has long been a noteworthy aspect of Australian states' gambling taxation (Rubner 1966).

Because gambling revenues tend to decline rapidly during a limited product lifecycle, gambling taxation may exacerbate state government tax rivalry. With introduction of casinos in all states and the spread of gaming machines throughout most states, competition for gambling business has intensified.

The introduction of casinos and gaming machines in Australian gambling activity has heralded a trend of privatisation of the formerly government-dominated gambling industry (McMillen 1996b). State rivalry to promote gambling business has manifested in pressures on rates of taxation or the extent of public profit-sharing. Tax competition is especially intense where there is strong interjurisdictional bidding for business, such as in Totalisator Agency Board (TAB) betting, or 'junket' casino gamblers, or where new forms of gambling have drawn substantial business from existing gambling, such as in racing. Some states have reduced taxation of 'high roller' gamblers at casinos in order to compete for business with other states. Racing tax rates have also been reduced in most states in response to competition from residents placing bets through gambling operations in other jurisdictions (CGC 1997). Only lotteries, which are protected from intensive interstate competition by revenue-sharing agreements, have maintained tax yields in the face of intensified competition since the 1980s.²⁹

3.3 The changing gambling tax base

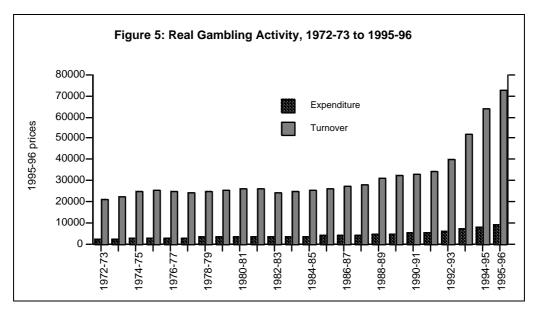
As a result of the turnaround in state government attitudes to gambling since the mid 1980s, there have been dramatic changes in the extent and nature of gambling in Australia, a change which has underpinned the boom in gambling revenues since the early 1990s. With the removal of prohibitions on casino and gaming-machine gambling, and widening accessibility of gambling venues, gaming activity increased dramatically (see Table 2 and Figure 5). Racing betting has been declining in real terms since the late 1980s. Over the decade to 1995–96, total player losses ('expenditures') on gambling more than doubled in real terms, parallelling a dramatic growth in gaming and gambling industry profit (ABS 1998, 1997a; Edeson 1998; McMillen 1996b). By 1995–96, the total amount wagered annually (gambling

²⁹ Payout rates for lotteries are 60% in all states. State differences in revenue yields from lotteries reflect differences in operating costs, rather than different prize shares. Different operating costs partly reflect economies of scale in lotteries, especially jackpot lotteries (Cook and Clotfelter 1993).

'turnover') was \$72.9 billion, or \$5375 per capita; on average player losses accounted for 3% of household budgets (TGC 1997).³⁰

	Table 2	: Total Rea	al Per Capi	ta Gaming 1	Expenditur	e, All States	s and Territ	ories	
Year	NSW	Vic.	Qld	SA	WA	Tas.	ACT	NT	Australia
1972–73	369	26	35	31	27	51	-	-	156
1985–86	390	142	131	176	122	259	320	370	236
1990–91	464	157	249	232	311	262	436	447	308
1995–96	676	622	507	446	480	320	697	656	585

Source: Tasmanian Gaming Commission (1997).

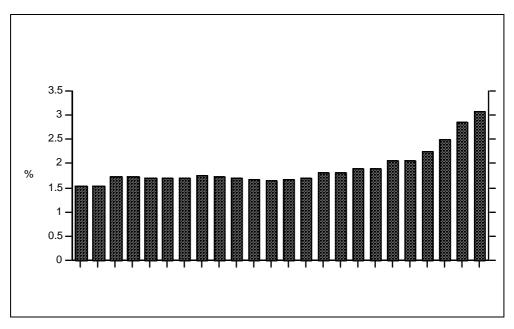


Source: Tasmanian Gaming Commission (1997).

The change in state government policies can be seen in the rising share of gambling losses in household disposable incomes (HDI) since the late 1980s (Figure 6).

-

³⁰ See p. 26 and footnote 46 below for a discussion of statistical terms for gambling activity.



Source: Tasmanian Gaming Commission (1997).

Gambling expenditure has also increased sharply in nearly all states as a share of HDI since the mid 1980s (Table 3).³¹

			able 3: Aus as a % of H	Iousehold I	0 1	Income,			
Year	NSW	Vic.	Qld	SA	WA	Tas.	ACT	NT	Total
972–73	2.6	1.0	1.0	1.0	1.0	1.0	-	-	1.6
985–86	2.5	1.3	1.2	1.3	1.2	1.8	1.5	1.6	1.7
1990–91	2.8	1.3	1.9	1.7	2.0	1.9	1.9	2.5	2.0
1995–96	3.4	3.2	3.0	2.5	2.6	2.1	2.6	3.4	3.1

Source: Tasmanian Gaming Commission (1997).

- In Victoria gambling and gaming expenditure was a negligible share of HDI in the early 1970s, remaining at around 1.0% until 1991–92. Racing betting has been stagnant in real terms for more than two decades. Gambling has tripled as a share of HDI in Victoria in the last five years due to growth in gaming machine gambling.
- In NSW, by contrast, spending on gaming rose more slowly, from a relatively high 2.5–3.0% of HDI until the early 1990s, to 3.4% by 1995–96. Racing betting has been more robust than in Victoria, rising in real terms.
- In SA, gambling has been of lesser importance in household incomes than in NSW, Victoria or Queensland. However, since 1984–85 gambling has absorbed a rapidly increasing share of household incomes in SA, rising from 1% to 2.5% by 1995–96. In Queensland gambling has increased from around 1% to 3% of incomes over the same period.

The greatest contribution to aggregate growth of Australian gambling activity and tax revenues has been in NSW and Victoria, by virtue of their relative size, but the most rapid growth occurred in Queensland, WA and Victoria.

Although casino gambling has taken the highest profile in public debate, the spread of gaming machines in clubs and hotels³² has produced the most dramatic increases in government revenue and is largely responsible

³¹ This measure does not account for differences in the share of gambling expenditures by non-residents. If expenditure by non-residents is significant, this affects the impact of gambling on the local economy. See below, p. 69.

for the rise in the overall national significance of gambling revenue.³³ By 1996–97, casino and gaming machine taxes together provided from 20%, to as much as 65%, of individual states' gambling tax revenues (Table 4).

		Table 4:	The Compo	osition of G	ambling R	evenues			
	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Total
1985–86									
Lotteries	32	58	57	57	38	61	75	na	44
Poker machines	34	na	na	na	na	na	na	na	16
Casino	na	na	7	8	8	17	na	na	2
Racing	34	41	36	34	52	21	25	na	37
Other	na	1	na	na	2	0	na	na	0
1991–92									
Lotteries	24	58	60	60	53	52	38	32	43
Poker machines	35	na	2	na	na	na	na	48	16
Casino	na	na	13	12	23	21	23	na	5
Racing	34	37	25	28	24	24	38	19	32
Other	8	4	na	na	na	2	na	na	4
1996–97									
Lotteries	21	24	34	26	45	31	34	24	26
Poker machines	44	54	34	49	1	na	na	53	43
Casino	7	11	15	7	35	50	20	8	12
Racing	27	10	17	19	20	18	14	14	19
Other	0	1	na	na	na	2	na	0	0

Source: ABS 1997b.

With rising gaming expenditures more than offsetting the decline of racing betting, gaming activities are now the predominant source of government gambling revenues. Although in 1970–71, racing had been the most importance source of state gambling revenues, accounting for around 70% of revenue in most states,³⁴ its contribution to government revenues declined to around 40% in most states by 1982–83.³⁵ At this time racing was eclipsed by lotteries. Increased gaming machine taxes then held up government gambling revenues after real revenues from lottery sales peaked and stagnated from the early-mid 1980s.

Gaming machines and casinos have increased their share of gambling taxation dramatically in most states in the short time since they were introduced. Casinos contribute 12% of gambling revenues, while gaming machines in hotels and clubs provide over 40% of gambling tax revenues.

In NSW and Victoria, the recently-introduced casinos presently provide 7% and 11% of state gambling taxes respectively. Where casinos are well established, these revenues account for up to 50% of state gambling taxes. In WA where racing still accounted for over 60% of gambling revenues in 1981–82, casino revenues³⁶ have

³² While most casinos have gaming machines, only around 7% of machines were in casinos in 1994–95 (ABS 1997a)

³³ The ABS includes only ongoing casino and poker machine licence fees in its definition of taxes. Initial licence fees paid by casino operators for issue of the licence are excluded from ABS gambling tax data. Similarly, the Tasmanian Gaming Commission data excludes these initial fees from estimates of state casino revenues.

³⁴ Substantial revenue from poker machines made NSW the exception.

³⁵ Racing revenues declined or stagnated in real terms from the 1970s and fell consistently from 1993–94. Racing revenues fell in NSW, which already had gaming machines, and did not have a casino at that time. However, the sharpest drop in racing revenues was in Victoria, SA and the NT, which introduced gaming machines around that time. Racing revenues did not decline in Queensland.

³⁶ In WA and Tasmania gaming machines are only permitted at the casino.

substantially replaced racing revenues. SA has seen the importance of casino revenues fall sharply, from 12% to 7% of gambling revenues, since introduction of poker machines. Licensing gaming machines in Queensland left most of the state's casino revenues largely intact. However, there have been damatic falls in casino tax receipts in ACT and WA since the opening of the Victorian and NSW casinos (ABS 1997b).

Poker machines accounted for over 40% of NSW gambling revenue in the early 1970s, and a similar proportion in the 1990s. In contrast, Victorian gaming machine revenues grew dramatically in importance since their introduction from 1991–92, and are now 54% of the state gambling revenues. Similarly, poker machines in SA now provide half of the state's gambling taxes, from virtually nothing five years ago.

Lotteries have shrunk to around a third of gambling taxation in most states, while racing is now just one tenth of Victorian gambling revenues, and a quarter of revenues in NSW, SA and the Northern Territory (NT). Increased reliance on the newer forms of gambling for revenue has significant implications for gambling tax policy because of their apparently lower taxability compared to etablished forms of gambing. The tax yields from gambling are discussed below.

3.4 Gambling tax regimes and rates of taxation

While gambling revenues have risen (Figure 3), there is no evidence tax rates on gambling have increased. Tax rates on gambling appear to have been stable if not declining in recent years.

3.4.1 Tax regimes and scales

States tax regimes for gambling are complex, and diverse, making it difficult for the public to judge the burden of taxation on gambling. 'Gambling taxes' are defined by the Australian Bureau of Statistics to include taxes on racing or casino and gaming profits, profits of staterun lotteries, and certain fees for issue of casino or poker machine licences.³⁷ As can be seen in Appendix 1:

- Gambling taxation arrangements vary greatly from state to state.
- In some states, the lottery is assigned to a private operator, and taxed by the government. In others, the government operates lotteries, and the lottery enterprise profit is in effect an implicit 'tax'.
- Some gambling taxes are levied as up-front or periodic licence fees. Others are taxes on turnover, or on net takings. Some states apply all of these forms of taxes.
- The same type of gambling may face various tax regimes within the same jurisdiction, with different tax rates or a different tax base for different operators or industries.
- Some gambling tax revenues go into consolidated revenue, some go into trust funds, some are returned to the racing or sports industry. In some cases a portion of revenues is retained in a fund to support industry development or, in the case of clubs, by the enterprise.
- Most taxes are flat rate, but some have complex graduated scales or thresholds, or both.
- Racing and betting taxes are usually levied on the amount wagered, ie, gross turnover. Racing taxes are typically around 5–10% on gross wagers or 'investments' at TABs, while rates of around 1% apply to bookmakers.³⁸

³⁷ The ABS excludes initial casino licence fees from taxation revenues, viewing the fee as receipt for sale of an intangible asset.

³⁸ Gross deductions, around 15–20%, are higher than the net percentage received by the government quoted above because a proportion of revenues are earmarked for the industry.

- Lotteries (including lotteries, lotto and soccer pools) are 'taxed' on turnover after certain deductions, at rates around 30–35% of sales. The surplus or a share of profit after prize distributions is transferred to consolidated revenue or special funds.
- Taxes on poker machines in clubs and hotels are complex and the basis of taxation varies between states. The taxes are typically levied on either gross profits at rates around 22% or on turnover at around 4%. Higher rates of around 35–50% apply to hotel gaming machine profits (representing between 4% and 10% of hotels' gaming machine turnover).
- Community support levies are collected on all gaming machine operations in Tasmania, Queensland, and Victoria, but apply only to clubs in Queensland and Tasmania.
- Casino taxes are levied on gross gaming revenues of casinos at a typical rate of 20%. Lower rates have been introduced for 'high roller' gamblers in some states. Casino tax rates around 20% of gross revenue are typically halved for 'junket operations', eg, in the ACT and Victoria. Licence fees are also payable in some states a one-off payment, in others a fixed regular amount, or combinations of one-off and regular payments.
- NSW, Victoria, Queensland and WA apply a 'community benefit' levy to casino revenues.

Under the federal income tax, personal gambling winnings are not taxable, except for professional gamblers. Casino and hotel profits are subject to corporate profits tax, but many clubs are exempt from tax on receipts from 'members'.

The economic impact of gambling taxes depends on whether they are levied on turnover or net takings (player loss), as well as on demand, and cost structures of operators supplying a particular gambling product. Which tax base is used also affects how the risk of varying payout rates is shared between the operator, and government revenue.³⁹

3.4.2 'Tax expenditures/subsidies'

Offsetting the expansionary trend in gambling tax revenues is the tendency for governments to use gambling tax concessions to support parts of the gambling industry or compete with other jurisdictions for the gambling dollar. Such concessions have the same effect on the budget bottom line as expenditures, and are known as 'tax expenditures'. The revenue loss or 'tax subsidy' provided in this form can represent a significant element of government spending even though it is not easily scrutinised by the public.

Estimates of the budgetary cost of state government tax expenditures are rare, although the federal Treasury has been publishing annual estimates of major Commonwealth government tax expenditures since 1986.⁴⁰ In NSW the 1988 Tax Task Force broke new ground in identifying and costing a number of tax expenditures in respect of gambling, as well as other state taxes (Collins, Hunt et al. 1988; Reece, Maynard et al. 1988). The largest NSW tax expenditures in 1986–87 were for land tax (\$1.8 billion), with around \$75 million of tax expenditures attributable to gambling tax concessions. This was equal to 13% of gambling revenues that year. It mainly represented the bookmakers tax concession, costing \$69.8 million.⁴¹

³⁹ For example, it is argued that taxing net takings rather than turnover allows poker machine operators greater incentive and flexibility to adjust payout rates to meet profit or market objectives (AIGR and IRU 1995).

⁴⁰ Issues regarding estimating the cost of tax expenditures are discussed in Butler and Smith (1992).

⁴¹ Gambling tax expenditures in NSW in 1986–87 were defined as:

[•] the concessional licence fee on electronic poker machines for smaller hotels

[•] the rebate of up to 95% of poker machine licence tax for clubs with net revenue less than \$300,000

[•] the rebate of poker machine licence tax for new clubs with less than 250 members

[•] the tax rebate of 33.3% of approved welfare expenditures for clubs spending more than 1.5% of net poker machine revenues pa on such expenditures

[•] the concessional tax rate of 1.25% on bookmakers turnover compared to the equivalent 6.5% on TAB bets.

No comparable study has been done for other states. The extent of gambling tax concessions is likely to have increased, rather than reduced since 1986–87 with more intense interstate tax competition and declines in racing, and more recently casino taxes in some states (eg, see Honeysett 1996; McCrann 1997). If the NSW 1986–87 concessions applied Australia-wide in 1995–96, the cost would have been around \$400 million. This does not take account of recent further concessions granted by states to some forms of racing betting and concessional tax rates for some categories of casino gamblers. Nor does it reflect the lower tax rates on club gaming machines compared to hotels.

Measured against national gambling revenues of \$3.3 billion annually, more than \$400 million of tax concessions to the bookmaking and club industry, and to 'high roller' casino gamblers, represent a significant loss of revenue, and a substantial tax subsidy to the gambling industry. 44

3.4.3 The level of taxation on gambling

The overall rate of tax on gambling can be assessed by comparing total gambling tax revenue with gambling tax activity. There are various different ways of measuring this overall tax rate because there are a number of definitions of the tax base (Johnson 1985).

- One approach compares tax revenues with **gross expenditures** or turnover, a method commonly used to compare the 'take-out' rate on lotteries. This expresses the tax as a % of the gross 'price' paid by consumers, that is, of 'turnover'.
- Comparing tax revenues with **net gambling expenditures** or 'player loss', indicates the government revenue share of the gambling enterprise's 'net takings' (that is, after payout of winnings).⁴⁵ Net expenditure is the most common measure used by economists for measuring gambling, and reflects the actual cost to individuals. It is also used in the National Accounts, which treats winnings as transfers between individuals.⁴⁶
- Measuring tax revenues against **gross turnover less government revenues** provides another indication of gambling tax rates.

Tax rates can also be measured as a percentage of the gross, or net, 'price' that is, on a tax-inclusive, or tax-exclusive (*ad valorem*) basis.⁴⁷ As is clear from Figure 7, the tax rate on gambling, peaked in the mid 1980s at around 7% or 44%, depending on the tax base used, and has been declining since. By 1995–96, the average rate of tax on gambling had fallen to 4–5% on turnover, and 34% on an expenditure basis.

Some of these concessions may reflect judgements about the administrative cost-effectiveness of taxing certain enterprises. Others clearly reflect a desire to assist particular types of operators through granting tax relief.

- ⁴² Of course, neither the level nor the nature of tax concessions in NSW will necessarily reflect the situation for other states. Other states may have different concessions, and use somewhat different tax bases.
- ⁴³ In most states, hotels pay higher taxes on gaming machine revenue than clubs. For example, in NSW in 1995–96, hotels paid 4% of turnover as tax, while clubs pay 22% of profits. The latter is equivalent to around 2% of turnover at a 10% takeout rate. Clubs typically also pay lower community levies where these apply. This is said to be justified by clubs' financial support of local charities or community projects and subsidized facilities for members. In the ACT for example, clubs' net takings from poker machines of \$108 million in 1995–96 were dispersed partly in labour and other operating costs but partly (\$3 million) as donations to charities (Clack 1996).
- ⁴⁴ As the federal tax is a net profit tax, the costs of private gambling operations, including for example, the cost of running casino 'junkets' for high roller gamblers can also be deducted for corporate income tax purposes.
- ⁴⁵ For continuous forms of gambling like casino table games or gaming machines, it is sometimes not practical to collect data on turnover, and net expenditure data provide the only reliable measure of gambling activity.
- ⁴⁶ For a defence of the economic significance of gambling turnover, see Rubner (1966, 119). Rubner argues that turnover is a relevant measure for most gambles, as winnings are highly concentrated among a few individuals and professional gamblers. As a result, the price of gambling to most individuals is the gross wager. This argument is especially applicable for games like lotteries where the odds of winning a large prize are very low, and less applicable for gambling forms where the odds of winning are more favourable and prizes more evenly distributed.

The definitions of tax rates are detailed on page 55, footnote 79.

Partly, this trend reflects the deliberate lowering of taxes on racing in some states to support a stagnating or declining activity. Partly it reflects a compositional shift away from (mainly state-run) lotteries with very high ('monopolistic') implicit tax rates, to privately-operated gambling activities subject to greater competition and lower taxation rates, such as casino and poker machine gambling.

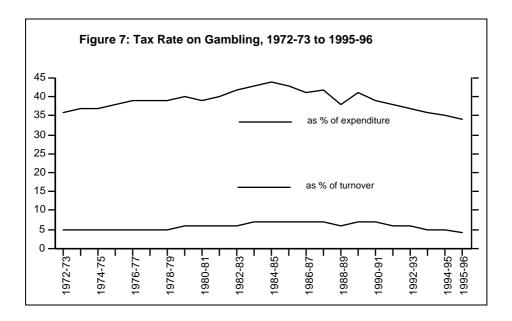


Table 5 below shows gambling tax rates from Johnson (1985) for the early 1980s, and rates calculated for 1989–90 and 1995–96 using Tasmanian Gaming Commision data on revenue, turnover and expenditure.⁴⁸

	Gross Expenditure	Net Expenditure	Gross Expenditure Less Government Revenu
1980–81	%	%	%
Racing	4	29	6
Lotteries	30	76	46
Poker Machines	3	21	3
Casinos	na	na	3
Total gambling	5	34	6
1989–90			
Racing	5	41	6
Lotteries and soccer pools	32	80	46
Poker Machines/EGM/VGM/Club Keno	3	25	3
Casinos	3	18	3
Total gambling	7	41	7

_

⁴⁸ As Clotfelter and Cook (1989) note, the more rapid turnover of winnings in some games makes comparing different forms of gambling and their effective tax rates problematic. A 95% payout on a poker machine becomes 49% if winnings are reinivested for 14 successive plays. This is reflected in the different overall 'takeout rates' for different forms of gambling, of around 40% for Australian lotteries, compared to 10% for poker machines and 15% for casinos (which includes gaming machines as well as table games). While it is clear the implicit tax rate on lotteries is higher than on other gambling, it is not possible to say by how much. This also complicates comparisons of various gambling activities with taxes on other 'sins' such as tobacco or alcohol (see below).

Racing	5	37	6
Lotteries and soccer pools	32	82	48
Poker Machines/EGM/VGM/Club Keno	3	27	3
Casinos	3	20	3
Total gambling	4	34	5

Sources: Tasmanian Gaming Commission 1997; Johnson 1985.

Racing taxes in Australia account for around 5% of gross wagering or 'turnover', but around 37% of expenditures. In the US in 1987 parimutuel racing taxes were 4% of gross wagering, and 21% of expenditures (Clotfelter and Cook 1989).

Australian lotteries, mainly operated by the public sector, have the highest implicit tax, with revenues of around 32% of sales (equal to a profit markup of around 80%) since the 1980s. ⁴⁹ This parallels the generally high, profitability of overseas state-run lotteries. Rubner (1966, 111) in a survey of various developed and developing countries during the 1960s, found implicit lottery tax rates ranged from 15% to 45%. Lottery revenues were between 38% and 48% of sales shortly after they were introduced in the US in the mid 1970s (Brinner and Clotfelter 1975), ⁵⁰ and around 30–35% in Canada (Livernois 1987a). US lottery tax revenues reported in Clotfelter and Cook (1989) were 41% of sales in 1985, or 85% *ad valorem*.

Australia-wide taxation on gaming machines and casinos was a relatively low 27% and 20% respectively of expenditures in 1995–96 (around 3% on a turnover basis). Comparable estimates for other jurisdictions are not available.

Table 6 reveals differences between states on levels as well as trends in gambling taxation. Most states levied gambling taxes around 30–40% of expenditures during the early 1970s, levied mainly on racing and lotteries. Rates have dropped sharply since the mid 1980s, although remaining roughly stable in the smaller states.

	Table 6: Gambling Tax Rates, 1972–73 to 1995–96									
Year	NSW	Vic.	Qld	SA	WA	Tas.	ACT	NT	Australia	
1972–73	34	38	40	37	38	29	6	na	35	
1979–80	35	61	39	37	38	27	7	20	40	
1985–86	41	56	39	36	42	34	26	23	43	
1989–90	37	58	38	38	36	34	28	38	41	
1995–96	32	41	27	38	30	35	30	19	34	

Source: Tasmanian Gaming Commission 1997

In the past, Victoria has levied very high taxes on gambling, over 60%, nearly double that in NSW. By 1995–96, Victorian gambling tax revenues had fallen to 41% of net gambling expenditures, only slightly above other states. Nevertheless, Victoria continues to levy the highest rates of taxation on gambling, and the NT and Queensland the lowest.

These patterns partly reflect the varying composition of gambling activity and revenues in different states as well as different tax rates for the various gambling products. Taxation on lotteries is the highest gambling tax levied in all states, most notably in Victoria and SA where virtually all surplus revenues accrue to the government one way or another.

• While the average revenue yield from lotteries in NSW, Victoria, Queensland and SA has increased since 1987–88, it has fallen in other states.

⁴⁹ In a historical survey of NSW lotteries, Alchin (1989) reports that the profit has declined from over 35% to 26% of sales since 1930, due to the higher promotion costs of modern lotteries. Measured as an excise tax rate (revenue as a percentage of total cost including prizes), this is a fall from 50% to 38%.

⁵⁰ That is, 61% to 92% on an 'ad valorem' basis. See p. 55 and footnote 79 below.

- Tax rates on racing range from 52% in NSW to 13% in the NT and around 30% in most other states. NSW taxes racing fairly heavily, and has increased overall taxation on racing since 1987–88. However, most states have been reducing overall taxation on racing, notably in Victoria.⁵¹
- The average taxation on casinos is generally higher than in 1987–88, when casinos were first being established or were non-existent in most states. This reflects a higher revenue take from the large, new casinos in Victoria and NSW.
- Casino taxes are around 22% to 27% of net takings in south-eastern Australia, with much lower rates in WA and the NT. The recently opened NSW and Victorian casinos paid 22% of net takings in taxes in 1995–96. With sharp declines in activity and in receipts in the smaller casinos such as in WA and ACT since NSW and Victorian casinos opened, average tax rates on casinos are variable and unstable.
- There is a wider variation in the level of taxation on gaming machines in the different states. Highest levels are in Victoria where the rate on expenditure is 41%, compared with 17% in Queensland and 21% in NSW.

To some extent the fall in tax rates over the last decades reflects state tax competition, and more generous tax concessions to the gambling industry. National gambling revenues would be around \$80 million or 2–3% higher if 1987–88 average gambling tax rates for individual gambling applied to actual expenditures on these products in 1995–96.⁵² However, the main reason for the fall in average taxation on gambling is the change in composition of gambling activity towards lower taxed casino and gaming machine gambling. Revenue in 1995–96 would have been around \$800 million higher if gambling activities including casino and gaming machine gambling were levied at the same rates as racing and lotteries, that is, if the 1995–96 levels of gambling activity yielded the same average revenue as in the mid 1980s.

This shows there are diminishing marginal returns to revenue from the recent expansion of gambing activity.

Table 7: Gambling, Tax Rates, by State and Type, 1995–96									
1995–96	NSW	Vic	Qld	SA	WA	Tas	ACT	NT	Australia*
Racing	52	28	26	25	33	32	41	13	37
Lotteries and soccer pools	76	94	73	105	75	81	79	79	82
Casino	22	22	19	23	15	27	26	6	20
Gaming	21	41	17	33	na	18	22	25	27
machines/keno									

Note: *excludes minor gaming

Source: Tasmanian Gaming Commission 1997.

3.5 State government reliance on gambling taxation

As observed earlier, state and local taxes have risen significantly in recent years, comprising 24% of total taxation by 1996–97 compared to 20% a decade earlier (ABS 1997b).⁵³ Gambling taxation played a significant although not predominant role in this expansion, with some governments experiencing an uncharacteristic increase in reliance on gambling revenues.

⁵¹ Although racing betting and revenues have been declining throughout Australia since around 1989–90, a particularly sharp drop in Victorian racing revenue coincided with the rapid spread of gaming machines from 1993–94.

⁵² This assumes NSW poker machine tax rates in 1987-88 were applied to gaming machine expenditures in states that had licensed them in 1995–96, and Queensland's 1987–88 casino tax rate of 20% were effective for the ACT, Victorian and NSW casinos in 1995–96.

 $^{^{53}}$ Local government collect around 4% of national taxation, in the form of municipal rates, with no change in this share over the last five years.

The expansion of state taxation was mainly through higher collections from business franchise fees, stamp duties, and payroll taxes. Together these contributed two thirds of overall growth in state tax revenues since the early 1980s. Since 1990–91, business franchise fees have grown by 87%, payroll taxes by 22%, and financial transactions taxes by 52%. Increased gambling and motor taxes accounted about equally for the rest of the increase.⁵⁴

Despite rapid recent growth, gambling taxes remain less important state taxes than payroll taxes, financial transaction taxes or business franchise fees, which in 1996–97 accounted for a respective 20%, 22% and 16% of state and local taxes. Gambling taxes remain comparable in importance with motor taxes as a share of state taxes.

From one perspective, state government reliance on gambling is not exceptional compared to the experience of the postwar decades. As Johnson (1985, 80) shows, Australian state governments collected an average 17% of tax revenues from (mainly lotteries and racing) gambling in 1950–51, with NSW and Queensland relying on gambling for 17–18% of their tax revenues, and Tasmania for 53%.

Table 8: Gambling Revenues as a Percentage of State Taxation										
	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	All states	
1970–71	19	9	10	7	8	7	na	na	12.9	
1975–76	13	9	7	5	6	6	na	na	9.8	
1980-81	14	10	6	7	6	9	na	na	10.5	
1985–86	11	9	10	8	6	9	5	na	9.7	
1990–91	10	9	10	9	7	8	9	7	9.2	
1995–96	10	12	12	11	7	8	10	9	10.9	
1996–97	10	13	12	12	6	9	9	8	10.9	

Source: ABS 1997b; Alchin (1989).

The 1980s, when gambling taxes fell to around 7–9% of revenues in most states, could be seen as unusual for the relatively low contribution of gambling to state budgets.

Nevertheless, the recent expansion of gambling taxation has generated considerable public concern. Even formerly low-gambling-tax states now rely substantially on gambling revenues Table 8. The rapid growth of revenue has also resulted from licensing new and probably more addictive gambling activities, but activities which generate a lower (per gambling dollar) return to state revenues.

- The most dramatic change has been in Victoria. As a low-gambling-tax state during the early 1970s, Victoria collected about half as much proportionally from gambling as NSW and about the same as WA. By 1996–97, however, after introducing gaming machines and a casino within a few years, gambling accounted for 13% of Victorian revenues. Victoria was collecting \$231 per capita in gambling taxes, compared with \$190 in NSW, and \$107 in WA.⁵⁵ Of all the states, Victoria is now the most reliant on gambling tax revenues.
- Similarly, SA has long been a low-gambling-tax state, but is now collecting a greater share of revenue from gambling (12%) than NSW, a traditionally high-gambling-tax state.

⁵⁴ Albon (1997) suggests the higher rates of state taxes on fractured taxation bases has reduced the efficiency of taxation. While this may be true for states' payroll and land taxes, it is not true of gambling taxes. As discussed below, necessarily the economic efficiency implications of the rise in gambling revenues are not clear cut.

⁵⁵ This increase, associated with the introduction of gaming machines, and more recently the casino, occurred in spite of particularly heavy falls in racing revenues.

• Those states now relying least on gambling, WA and Tasmania, have seen little change in gambling share of their taxes over the last 2.5 decades, collecting around 7–9% of taxes from gambling.

4 IS A GAMBLE ON GAMBLING TAXES A GOOD BET?

'Taxes are imposed to obtain Government revenue. Taxes are imposed to redistribute the national income. Taxes are imposed to discourage undesirable — but legal — social or economic acts. Taxes are imposed to provide the State with a tool for prosecuting promoters of illegal activities. Taxes are imposed to transfer to the State private windfall profits generated as a result of state actions.' (Rubner 1966, 62)

4.1 The political appeal of gambling taxes

Gambling taxes have considerable superficial appeal to governments. Gambling has long been a productive revenue base, and makes a welcome, if minor, contribution to public revenues. With a rapidly expanding revenue base, and responsiveness to growth in the economy, gambling taxes bring in quick dollars to revenue-hungry governments.

Governments can use their regulatory powers to create monopoly profits, which can be taxed. Taxes on windfall gains are usually more politically acceptable than other taxes. Gambling taxes are also less unpopular than other taxes as they are seen as a tax on a 'luxury' and therefore in the eyes of some a 'voluntary' tax. Gambling taxes may thus be seen as painless, levied on discretionary entertainment spending. This makes them relatively politically easy to introduce or increase, compared to taxes such as income or sales taxes or taxes on property which offend powerful interest groups and are perceived as a burden by the general population.

As the burden of gambling taxes can, at least in the short term, be 'exported' to residents of nearby jurisdictions which limit or prohibit gambling activity, they have considerable parochial political advantage.

Gambling taxes are also seen as easy to collect and administer. Tight regulation of market entry means the industry is dominated by a relatively small number of enterprises who can be prevailed on to collect gambling taxes at apparently minimal costs for the government.

As well as offering quick and easy revenues, expanding gambling has economic appeal to governments. Falling on windfall gains or price-insensitive consumers, gambling taxes may be less economically distorting than other available sources of revenue. Expanding the gambling tax base also holds promise as a source of economic gains for consumers, and as part of a tourism-based economic development strategy.

An important consequence of their political and revenue appeal is that governments use gambling taxes to reduce or avoid introducing other taxes. This may be the case even where other taxes may be more desirable: fairer, more efficient, more sustainable, less volatile or more predictable, and less socially damaging. Against the background of overseas experience, the following section examines these various aspects of gambling taxation in Australia from the viewpoint of revenue, fairness and economic efficiency.

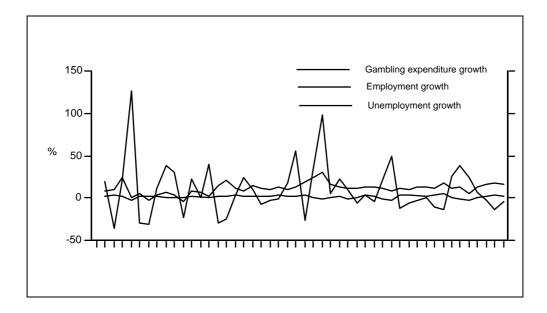
4.2 Revenue bonanza or fickle financing?

4.2.1 The robustness, stability, and elasticity of gambling revenues

An important consideration for taxation policy, especially of state governments, is how robust revenues are to economic shocks including recession, and how elastic they are with respect to growth in incomes and the economy. An further aspect of particular importance to state governments is whether a tax adds to or reduces the overall volatility of the revenue base.

Some argue gambling taxes are relatively resilient in recession, as high unemployment may partially offset the dampening effect on gambling of slower incomes growth. Mikesell (1994) shows for example, that gambling

revenues were higher where unemployment was rising in the early 1990s. This supports the link found earlier by Vrooman (1976) between high unemployment and gambling. Reduced opportunity and higher unemployment may increase people's propensity to gamble, with the gambling industry effectively 'selling hope' (Clotfelter and Cook 1989) to those who see no other route to prosperity.



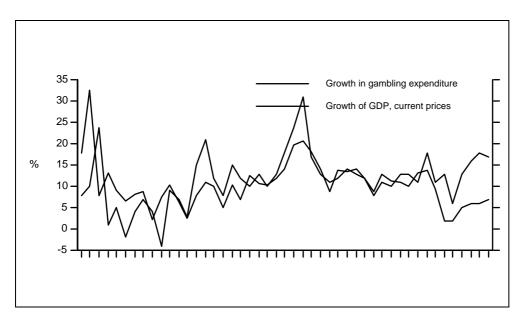
In Australia, growth in gambling has mainly corresponded to the general growth in employment, although corresponding to sharp jumps in unemployment in the 1950s, and the early 1970s (Figure 8). There is no analysis comparable with that by Mikesell for the US of whether high levels of gambling expenditure are most likely in high unemployment states, or regions. The finding by the VCGA (1997) suggests more disaggregated analysis

by local government area may be more revealing as unemployment is also geographically concentrated (Hunter and Gregory 1996).

Whether gambling taxes add volatility to the revenue base and therefore cause uncertainty and difficulties for budget management and planning is complex and controversial. Mikesell and Zorn (1986) argue gambling taxes are a highly volatile revenue source. Szakmary and Szakmary (1995) on the other hand, find gambling tax revenues have high stand-alone variability, but contribute to greater overall stability of total revenues because fluctuations in gambling revenue have a low correlation with variations in other revenues. Clotfelter and Cook (1989) finds lotteries are more volatile than other state revenues, but this is not necessarily a problem. There is some evidence in Australia to support concerns at volality. Australian gambling revenues are highly sensitive to fluctuations in the economy, as shown in Figure

9. The year-to-year volatility in gambling expenditures exceeds that of GDP, although the rate of growth of gambling activity is fairly closely correlated with economic growth ($r^2 = 0.33$).

⁵⁶ This may be due to the relative resilience of gambling revenues in recession. However, it could also be because gambling taxes are an easy source of new funds for governments to turn to when other state government revenues decline due to economic downturn or federal budget cuts.



The NSW Tax Task Force (Collins, Hunt et al. 1988) also found considerable year-to-year volatility in NSW gambling revenues. They nevertheless concluded gambling taxes would grow faster than income, although the underlying income elasticity of total gambling revenues was unclear.⁵⁷ Although revenue growth could come from increasing tax rates if elasticities were low, the Task Force considered the amount of revenue raised depended on marketing as much as on tax rates. Future elasticity of gambling revenues therefore depended on a consistent marketing effort 'to offset the tendency for patronage of individual gambling products to decline over time'.

The 'volatility' of gambling revenues may be partly due to rapid growth. Looking at fluctuations around a 14-year average, Clotfelter and Cook (1989) found lottery revenues grew rapidly from year to year, and during the period examined were less likely than

other taxes to fall from year to year. They argued there were no signs of declining interest in US lotteries at that time, and suggested unrealistic expectations of maintaining initial very high growth rates created impressions of disappointing revenues in later years.

While such strong 'upward fluctuations' in year-to-year gambling revenues are politically attractive, the long term reliability of gambling revenues remains questionable. Gambling is a very narrow and therefore unreliable taxation base, highly vulnerable to changing consumer tastes. As observed in section 2, the demand characteristics of gambling products make them susceptible to short product life-cycles, with consumer interest relatively short lived and unpredictable unless sustained by product innovations or promotion. Because of this strong product life-cycle effect, revenues tend to grow rapidly in the early years, but stagnate or decline substantially in the medium to longer term (Stover 1987; Goodman 1995; Henriksson 1996; Madhusudhan 1996; Rychlak 1992).

These factors can make reliance on gambling revenues a risk to longer term stability of public finances. New public spending programs may be introduced and financed from the abundant revenues during the early phase. This may lock the government in to keeping overall gambling activity at levels to which their budgets have become accustomed, with undesirable social and political consequences and an increasing revenue dependency on sustaining gambling activity.⁵⁸

Unlike other revenue sources which can be projected with relative accuracy for the coming year, trends in gambling activity and revenues are difficult to predict (NILECJ 1977). They are more subject to vagaries of the

-

⁵⁷ Gambling tax revenues were concluded to grow slightly more rapidly than the economy, with a long term elasticity with respect to economic growth of around 1.1. This was on a par with land and payroll taxation and NSW taxes as a whole. Taxes on contracts and conveyances and stamp duties were relatively elastic, while those on alcohol and tobacco were relatively inelastic. The calculated revenue elasticity for lotteries (including the newest form Lotto) with respect to incomes growth was high, at just above 2. Elasticities for older forms like racing or poker machines were as low as 0.63. However, the amount of new revenue generated by introducing new forms of gambling could not be distinguished from money diverted from established gambling because of uncertainty over the extent to which different types of gambling were substitutes. The elasticity estimates for newer forms of gambling were therefore biased upwards compared to older forms.

⁵⁸ See Section 5.

marketplace and unpredictable responses to marketing, and less to general trends in consumer purchases and income levels than other broader based taxes (Weinstein and Deitch 1974). For example, lottery sales are susceptible to effects of changing consumer preferences, introduction of new games, marketing efforts, competition from neighbouring states' games and illegal games, and other factors outside the states control (Rychlak 1992; Mikesell and Zorn 1986). Trends in Australian casino revenues exemplify the vulnerability of tax receipts to consumer demand and interstate rivalry. In the light of such unpredictability of revenues, some writers argue monies for programs funded by gambling revenues cannot prudently be appropriated until those revenues have been collected (Karcher 1989).

As noted in section 3, Australian state governments have usually stemmed longer term declines in gambling revenues by legalising new forms of gambling, although this has sometimes been at the expense of accelerating decline in established gambling. The NSW Tax Task Force (Collins, Hunt et al. 1988) observed the importance of changes in legislation, rather than higher tax rates in increasing NSW gambling revenues, while similar forces have been identified in historical trends in SA gambling revenues (ACSSA 1997). For example, real lottery sales began declining in NSW from the early 1980s, and racing betting from the late 1980s. This was followed within five years by the licensing of a NSW casino. In Victoria, a decline in racing betting from the mid 1970s was initially offset by rapid growth of Tattslotto sales. However, after lottery sales levelled out and declined from the early to mid 1980s, gambling activity and revenues were bolstered by the new gaming machines and casino gambling introduced from 1991–92.

This pattern appears to be explained by a relatively fixed market for gambling, with governments stimulating declining consumer interest and tax receipts by promotion of new gambling products and legalisation of previously prohibited forms of gambling to sustain revenue. There appear to be limited prospects for sustaining state government revenues by legalising new forms of gambling once casino revenues decline, as virtually all forms of gambling are now permitted, and the market appears to be saturated.

From this point of view, gambling revenues are not robust and increase budget uncertainty, adding to budget management difficulties, as well as creating a tendency to overspend in relation to long term revenue sources. This implies the risk of regular fiscal crises, and increasing state government dependency on gambling revenues.

4.2.2 Robbing Peter to pay Paul?

Although gambling taxes undoubtably add to a state government's revenues, the overall long-term benefit to public revenues is reduced both because of tax exporting, or competition between governments (Suits 1977a), and because spending on gambling reduces other revenues like sales taxes (Weinstein and Deitch 1974; Clotfelter and Cook 1989; Borg, Mason et al. 1991, 1993; Clotfelter 1994). New revenues from gambling should thus be distinguished from such transfers of existing revenue (Henriksson 1996).⁵⁹

Residents of non-gambling states may purchase lottery tickets from other states, or cross the border to play poker machines or visit casinos. When restrictions on gambling are removed in the home state, the home state's revenues will increase, but total revenues will not increase as much. Stover (1990), for example found in the US that estimates of the revenue potential of new state lotteries should allow for gambling expenditure being substituted from neighbouring states. Likewise, the revenue gain to Victoria and Queensland introducing gaming machines was to some extent at the expense of revenues in NSW (AIGR and Industry Research Unit 1995; AGB—McNair 1995). The drain of casino revenues to some states led to arguments for their introduction in neighbouring states (Alchin 1989; Collins, Hunt et al. 1988). This produced severe adverse consequences for profitability and public revenues in WA and ACT as competition for overseas 'high rollers' and tourists intensifies (Edeson 1998; ABS 1998). As most gambling clients are local, a tax exporting strategy has limited long term aggregate revenue potential (Henriksson 1996; McMillen 1996), an issue discussed further in section 5.

Gambling revenues are partly at the expense of revenues from other consumption taxes. However, because gambling expenditure is only a small share of household spending, its effect in reducing other tax revenues is likely to be small.⁶⁰ Clotfelter and Cook (1989) found that for each dollar of lottery revenue gained, revenue lost from other state tax sources due to switching of consumer spending was around 3 to 5 cents in the dollar.

⁵⁹ The social costs of gambling may also impact on the expenditure side of the government (Goodman 1995; McMillen 1985).

⁶⁰ The effect is potentially larger if gambling substituted for highly taxed items such as alcohol or tobacco See Borg, Mason et al. (1991) but also Cooper and Cohn (1994). This also assumes gambling is not financed from savings or borrowings (see Section 5).

Borg, Mason et al. (1993) found much higher losses to sales and excise taxes, ranging from less than 15 cents in every dollar of revenue to as much as 23 cents. Clotfelter (1994), reviewing existing estimates, concludes that the net contribution to state revenue of lotteries was about 95 percent of apparent revenue.

To some extent state governments are also exporting the tax burden to federal taxpayers. For example, casino expenses are deductible under the Commonwealth's corporate income tax. ⁶¹ Likewise, revenue shifting may occur between local governments or between different levels of government if gambling activities such as casinos increase land valuations in certain local areas, such as in the CBD, but weakens business activity and reduces amenity land values in nearby local government areas. There appear to be no Australian research on the potential magnitude of such effects, although US research reveals measurable effects of casinos on total property values (Buck 1985) and concerns have been raised about the drain of revenues to state governments away from local communities in Australia (Sylvan and Sylvan 1985) and the US (Thompson and Gazel 1996).

4.3 Are gambling taxes 'fair'?

'Some of the lottery's effects are baldly redistributional: many lose so that a few might win.' (Clotfelter and Cook 1989)

Whether gambling taxes are 'fair' has long been a focus of gambling policy debates. On one view, gambling taxes are a 'voluntary', and therefore fair, tax on discretionary spending. Others suggest gambling taxes are a regressive and discriminatory levy on the leisure pursuits of the disadvantaged, attractive to politicians as a 'tax reform avoidance' mechanism.

As only a small component of the total tax system, gambling taxes at present levels are unlikely to have major significance for the overall fairness of the Australian tax system. The regressivity of other state government revenue sources also partly mitigates their use of regressive gambling taxes (Clotfelter and Cook 1987; Weinstein and Deitch 1974; Ouiggin 1985). There is also uncertainty about the true economic incidence of gambling taxes. Most studies of the incidence of gambling taxes assume consumers pay the tax. However, the true economic incidence of gambling taxes depends on the particular characteristics of the gambling market. One of the attractions of gambling as a tax instrument is said to be that its final economic incidence is on the gambler, regardless of who the tax is applied to Rubner (1966). The NSW Tax Task Force concluded that a high proportion of gambling taxes were shifted forward to the final consumers of the service, with a small percentage of this falling on interstate or overseas residents. Warren (1979) came to a similar conclusion. On the other hand, if the role of gambling taxation is essentially to tax economic rents created by government restrictions on gambling, the incidence could be expected to fall on rents received by gambling operators rather than gamblers. The significance of gambling taxes for tax equity lies mainly in the opportunity provided by gambling revenues for governments to reduce reliance on more equitable, but perhaps more politically contentious taxes and to defer necessary reform to the taxation and federal financial system. Increased resort by state government to gambling revenues highlights the need for debate:

- over whether giving lower priority to distributional objectives is a transparent and desirable shift in taxation policy, and
- on whether reducing reliance on gambling taxation by boosting progressive tax revenues, such as income or assets taxes, would improve overall tax equity.

Assuming gambling taxes do fall on gamblers, the main equity issues are therefore:

- how regressive is gambling taxation compared to other available sources of revenue?
- are different forms of gambling less regressive than others? and,
- how does the level of taxation on gambling compare with tax rates on other recreation expenditures?

The extreme concentration of gambling spending among a few heavy gamblers, and correlations between geographic location and levels of gambling, also raise other key equity issues.

• how does widening access to gambling alter the distributional burden of gambling taxation? and,

⁶¹ The Commonwealth income tax is on net incomes, hence the cost to casinos of 'junket' expenses is a deductible expense. The cost of generating state gambling revenues is therefore partly reflected in lower company tax revenues.

• is taxation of gambling really a 'voluntary tax' and therefore 'fair'?

4.3.1 The distribution of gambling taxation — 'exploiting the tired and the poor'?

Overseas studies leave no doubt that gambling taxes are very regressive compared to most other common revenue instruments, assuming of course that the economic incidence of gambling taxes is on gambling not operators. A few forms of gambling, such as casino table games have in the past been the preserve of the well off, and hence relatively less regressive or even progressive. However, as gambling becomes more accessible, the burden of gambling taxation is shifting towards lower income groups.

While there are no recent Australian studies of the distribution of gambling taxes, similar patterns and trends are evident here.

4.3.2 'Tax-reform-avoidance'

The most important distributional consequences of heavy reliance on gambling revenue relate to the politics of taxation. Which alternative avenues for taxation are side-stepped by legislators if gambling revenues are available? Many overseas commentators show resort to gambling taxation has often been a strategy to avoid or delay introducing more progressive taxes, such as income taxes, which are nevertheless, more controversial politically (Stocker 1972; Rubner 1966; Brinner and Clotfelter 1975; Guthrie 1981b; Peppard 1987; Filer, Moak et al. 1988; Jackson, Saurman et al. 1994; Black 1995). Likewise, because gambling is a more important recreational expenditure for lower socio-economic groups, some analysts suggest state gambling taxation is a tax-shifting strategy by the middle class, who prefer other recreation and leisure activities (Peppard 1987; Filer, Moak et al. 1988; Jackson, Saurman et al. 1994).

Tax 'effort' is influenced by many factors and is difficult to measure and assess. However, some evidence on the effect of expanding gambling revenues may be found in measures of 'tax effort' for the states, calculated by the Commonwealth Grants Commission (CGC 1997).

Tables 9 and 10 suggest that states making relatively heavy use of the gambling tax base have less vigorous taxation of land and business franchise taxes, while low-gambling-tax states tend to also have higher land and financial transactions taxes.

	Table 9: Av	erage Tax	x Effort, 19	91-92 to 1	995-96			
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Gambling tax	109	105	91	90	80	78	93	74
Pay roll Taxation	104	110	78	96	90	113	110	115
Land Revenue	83	111	109	139	106	298	99	0
Stamp Duty on Conveyances	103	122	76	94	110	112	98	116
Financial Transaction Taxes	109	112	55	105	112	107	64	99
Tobacco Franchise Fees	102	101	88	103	114	107	102	102
Petroleum Franchise Fees	114	134	0	114	122	132	122	142
Liquor Franchise Fees	105	105	89	92	92	97	106	146
Total Taxation	103	110	81	96	99	106	102	103

Source: CGC (1997)

Table 10: Change in tax effort, 1991-92 to 1995-96								
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Gambling tax	-12	43	-2	-38	6	-18	-7	4

Pay roll Taxation	-3	-5	3	-1	5	8	-10	23
Land Revenue	-15	8	9	8	35	-4	82	na
Stamp Duty on Conveyances	2	3	-2	4	-22	-1	0	14
Financial Transaction Taxes	4	0	25	-13	-16	-4	2	-24
Tobacco Franchise Fees	0	-6	19	-4	-4	-4	0	-4
Petroleum Franchise Fees	-14	11	na	23	35	-19	-17	-13
Liquor Franchise Fees	17	-9	-11	-14	-9	-12	22	71
Total Taxation	-1	6	0	-7	-2	-5	-1	6

Similarly, where states have increased exploitation of gambling taxation, this has tended to allow lower stamp duties or financial transaction taxes, and vice versa.

4.3.3 The regressivity of gambling taxes

Participation in gambling is widespread across income groups. Surveys typically show that gambling is generally recreational and average expenditure levels on gambling are similar across income categories (Clotfelter & Cook 1989, 223). Debates over gambling's distributional impact often focus on 'the typical player', and their income characteristics. As the typical player may be a middle or high income earner, reflecting the wide public participation in gambling, some argue gambling taxes are not inequitable.

However, the measure commonly used in economic studies of tax incidence is how expenditure varies as income increases. A tax is regressive if it falls as a percentage of income as income rises, and is progressive if it rises.

Research in the US and Canada leaves no doubt that most gambling taxes are regressive in their incidence (Borg, Mason et al. 1991; Clotfelter and Cook 1987; Mikesell and Zorn 1986; Livernois 1987b; Johnson 1976).

Gambling taxes were also found to be moderately regressive in Australian studies during the late 1970s and early 1980s (Warren 1979, 1986; Kakwani 1983). Warren (1979) found gambling taxes in the mid 1970s were proportional to income for most households, those with incomes above \$4160. The lowest income class spent 1% of income on gambling, compared to 0.4% for the \$3080 to \$4159 income category, and 0.5 to 0.7% for all other income classes. Gambling taxation was thus comparable to federal sales tax, and more progressive than many excises including federal beer taxes. Perhaps reflecting the nature of earlier casino taxes Nieuwenhuyen (1983) judged gambling taxes to show 'an unstable but distinctly progressive trend'.

Earlier studies, such as Weinstein and Deitch (1974), Spiro (1974), Brinner and Clotfelter (1975), Suits (1977a and 1979a), and Clotfelter and Cook (1987), found that most gambling taxes were regressive, although studies by Donzinger (1973) and Heavy (1978) raised the possibility of the implicit lottery tax being proportional in some cases. Calculating an index of the inequality of distribution of the tax burden based on the concept of the Gini measure of inequality of income distribution, Suits (1977a) found US gambling taxes with an index concentration of -0.16, were as regressive as the US sales tax (S = -0.15). Casino taxes in Nevada were moderately progressive at that time (S = 0.26), even more so than the US income tax (S = 0.19). This partly offset the very regressive effect of other forms of gambling, notably instant lotteries (S = -0.31) and numbers games (S = -0.44). Johnson (1976) found the implicit tax on North American lotteries was more regressive than sales taxes.

Different types of gambling have different distributional effects. The most recent studies of lotto games find them to be less regressive than in earlier studies, being closer to a proportional tax (Mikesell 1989; Clotfelter and Cook 1989). Livernois (1987b) found Canadian lotteries, with higher pay-out rates than US games, were less regressive (S = -0.1) than earlier US studies. Reflecting the pattern in the US, Canadian lotteries were more regressive than the Canadian sales tax (S = -0.05), and but less regressive than selective excise taxes (S = -0.17). However, legalised numbers games were much more regressive than weekly games (Clotfelter 1979).

⁶² See Suits (1977b) for a discussion of this index.

A shift in consumer demand towards more regressive forms of gambling, and the increased accessibility of casino and gaming machine gambling for lower income groups suggests the likelihood that gambling taxation may be becoming even more regressive since the early 1980s (NCW 1996; Borg, Mason et al. 1991; Mason, Shapiro et al. 1989).

Casino and gaming machines have been the source of the last decade's boom in gambling tax revenues. Casino taxes only added an element of progressivity when the main clientele were wealthy tourists or visitors. The cost of interstate air travel access to early, remotely located casinos precluded significant participation by other than the affluent. This biased assessments of casino tax incidence, and made these early casino taxes appear progressive. ⁶³ As gambling moves from the resorts to the suburbs, the burden of gambling taxes can be expected to change (Suits 1977a; Madhusudhan 1996). The recent proliferation of casino and poker machine gambling has made it cheaper and therefore more affordable for lower and middle income groups (Grinols 1996). Mason, Shapiro et al. (1989) found casino gambling expenditure was highly regressive, confirming earlier findings by Suits (1977a) for local gamblers in Nevada.

4.3.4 Are Australian gambling taxes regressive?

Sample size difficulties and reporting biases limit the usefulness of the ABS Household Expenditure Survey for evaluating the distribution of the gambling tax burden.⁶⁴ Nevertheless, analysis of HES data on gambling expenditures suggests gambling taxation is regressive in Australia, and increasingly so (Figures 10 and 11).

As can be seen in Figures 10 and 11, 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% of households, while falling from already low levels in the incomes of most affluent 40% of households.⁶⁵

It is not clear from this data how the distribution of the gambling tax burden has changed. Tax burden does not equate with gambling expenditures as some forms of gambling are taxed at lower rates than others. The HES suggests an increase in gaming machine gambling and casino card games, at the expense of (lower-taxed) racing, and to a lesser extent (higher-taxed) lotteries. Sample size difficulties preclude analysis of the tax burden for each of the types of gambling. Clearly, however, gambling losses have become a greater burden on lower income groups, and it is likely gambling taxation has become more regressive in Australia since 1984.⁶⁶

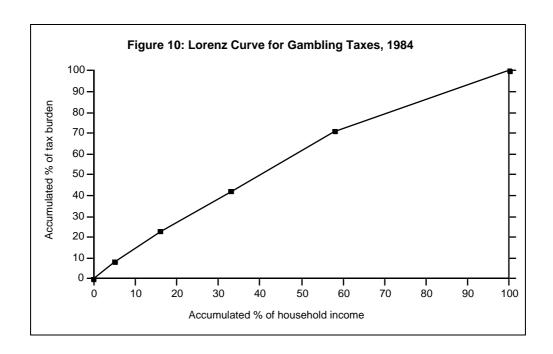
The HES also indicates gambling has become a more important recreation expenditure for the poorest 40% of households over the last decade. By 1993–94, gambling had increased from around 8–9% of recreational expenditures to around 10–11% for households in the bottom two income quintiles, while it reduced substantially in the higher income quintiles.

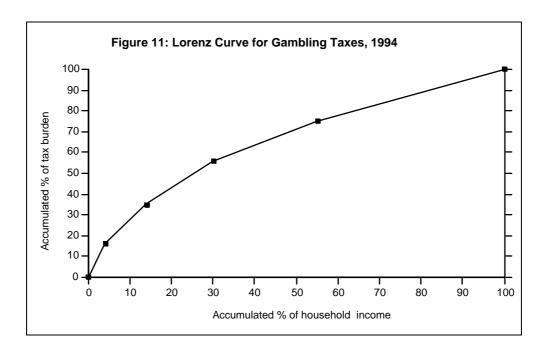
⁶³ Nevada was the only state permitting casino gambling at the time of Suits' study. Similar factors would have influenced the distribution burden of Tasmania's Wrest Point casino tax burden during the 1970s and early 1980s.

Gambling expenditure data from the HES are somewhat unreliable due to the likely underestimation of gambling losses, and overestimation of gambling winnings by households. Sample sizes for different types of gambling are also too small to allow the incidence to be estimated by attributing tax rates to each category of gambling. Relative standard errors are too large even for reliable estimates of total gambling expenditures.

⁶⁵ To the extent households finance gambling through borrowing, comparing gambling with household income does not give a complete picture of its impact. Nevertheless, as a share of household expenditure, similar patterns are evident.

⁶⁶ Examination of the data for the three latest HESs suggests that for the period 1984 to 1993–94 lotteries were very regressive over the whole range of household incomes, while casinos were mildly regressive over lowest income ranges and proportional or even progressive over higher income ranges. Likewise gaming machine expenditures seem regressive over the lower income range and proportional over the rest of the range of incomes. Combined with the very high rate of taxation on lotteries, this pattern of spending on gambling suggests that gambling taxation may be more strongly regressive than is apparent from expenditure data alone.





Sample size limitations also prevent comparison of state trends in gambling expenditures as measured by the HES with introduction of new gambling types. The HES nevertheless shows the sharp increase in the share of household incomes and expenditures on gambling in Victoria, SA, and Tasmania over the 1980s and 1990s.⁶⁷ This again suggests an increasing regressive gambling taxation trend in those states, unless gambling by higher income groups in those states has dramatically increased contrary to the national trend.

This is confirmed by the calculation of a 'Suits index' of the regressivity of gambling losses for 1984 and 1993–

This is confirmed by the calculation of a 'Suits index' of the regressivity of gambling losses for 1984 and 1993–94, based on HES data for gambling expenditures. In 1984, a uniform tax on gambling would have been roughly

⁶⁷ The pattern of rising household gambling expenditures in states where gaming machine and casino gambling has expanded dramatically also suggests the spread of gaming machines, and to a lesser extent, casino gambling, is a significant factor.

proportional to income (with the tax concentration index S = 0), with casino gambling offsetting the regressivity of lotteries. By 1993–94, the index suggests a highly regressive tax regime, with a concentration index of -0.31. This compares with an index for income tax of 0.2, and for a uniform tax on all commodity and service expenditures of -0.16.

Gambling expenditures account for a relatively small proportion of household incomes and spending. Hence the distributional effect of gambling taxes should not be overemphasised. The incidence of a tax must be judged against the regressiveness of most other state taxation options, and within the context of the offsetting effect of progressive taxes such as Commonwealth income taxes.

Nevertheless, gambling represents the latest addition to the set of tools used to raise revenue. Since these revenues are more regressive than the overall tax system, their expansion will have increased the regressivity of the overall tax system. For government taxation policy not to worsen the distribution of after-tax income, the increase in reliance on gambling taxation would have to be offset by increased progressivity of other taxes. The rise in gambling taxation has most disturbing implications when the counterbalancing progressive effects of other taxes, especially Commonwealth taxes, is being reduced through income tax cuts, new concessions for capital gains tax and private health expenditures, and widespread reported tax evasion or avoidance which advantage higher income groups.

Equally disturbing is that this pattern does not reflect transparent, legislated changes in tax schedules on gambling, but rather reflects a policy of higher taxation by stealth, through policies encouraging the spread of gambling facilities which are accessible and attractive to low income communities.

The concentration of gambling expenditures Figures on gambling expenditures give a misleading picture of its incidence because 'the typical player is not the source of the typical revenue dollar' (Clotfelter and Cook 1989). Gambling spending is heavily concentrated among relatively few households and individuals. Numerous overseas studies (Clotfelter and Cook 1987, 1989; Mason, Shapiro et al. 1989; *The Economist* 1997) show that around the heaviest 20–30% of gamblers account for some 80% or more of total gambling expenditure, depending on the type of gambling (Weinstein and Deitch 1974). Clotfelter and Cook (1989) cite the 1974 US National Gambling Survey showing that 10% of the population accounted for 84% of total wagers. ⁶⁸ Some overseas researchers suggest even higher concentrations, with Grinols (1996) finding that the 3–6% of people who are problem gamblers account for between a quarter and a half of all gambling expenditure in the US. Data from Mason, Shapiro et al. (1989) show the heaviest 13% of gamblers accounted for 67% of casino expenditures, and therefore gambling taxes, in Las Vagas.

Australian data suggests a similar patterns, with 40% of gamblers surveyed in Victoria accounting for 85% of reported expenditures (AGB–McNair 1995).⁶⁹ Nationally, this data implies as much as a third of Australia's spending on gambling came from the 1.3% of the population that were compulsive/pathological gamblers in 1991.⁷⁰

This suggests gambling taxation may be far more regressively distributed among gambling households than when measured across the general population, if the incidence of heavy gambling is greater in lower income groups than in the population as a whole.

Furthermore, this pattern of revenue raising from addicted gamblers elicits important questions about whether most gambling revenues are 'voluntary' or 'painless', and of the fairness and ethics of governments raising perhaps a third of their \$3.5 billion annual gambling revenues by exploiting the vulnerability of less than 200.000 individuals and their families.

4.3.5 The geographic incidence of gambling taxation

The concentration of gambling spending, and the disproportionate share in the incomes of poorer households, has other important distributional implications. If low income populations and heavy gambler populations

⁶⁸ The concentration of gambling expenditure is comparable with goods like alcohol and tobacco (Clotfelter and Cook 1987, 1989).

⁶⁹ Unit record data from the HES suggests around 90% of reported gambling expenditure derives from heaviest 10% of gamblers. The accuracy of this estimate is uncertain because of the known problems with HES gambling expenditure data. However, it does confirm that the strong tendency towards concentration of gambling expenditure which is evident in the Victorian survey, operates Australia-wide.

 $^{^{70}}$ Compulsory/pathological gambling as defined by the SOGS criteria was estimated at 161,592 adults, 1.3% of the population in 1991 (Dickerson 1992).

coincide in the same geographic area, the adverse social and economic impacts of gambling will be heavily concentrated in particular localities.⁷¹

A low income suburb with a significant population of heavy gamblers might well experience a very economically damaging drain of consumer spending to gambling operations and state government revenues, while the diversion of consumption towards gambling could produce dramatic effects on local businesses if this doubly regressive, doubly concentrated effect does operate. Such an effect may not be apparent from aggregate data.

Hence while Victorian research rejects the likelihood of substantial adverse effects on retailing in recent years, this does not rule out past or future problems for this sector in some local communities (VCGA 1997). The study found household expenditures on gambling were higher in local government areas where there were local gambling venues and gaming machines. It also found the risks from gambling to the profitability of local retailers, was somewhat higher, although low, where such local gambling was available.

The geographic distribution of the gambling tax burden highlights the significance of a slightly different argument put by some overseas commentators (Thompson and Gazel 1996 and Henriksson 1996, and in Australia by Sylvan and Sylvan 1985), that casinos usually located in state capital cities are more disruptive to local communities and economies than other forms of gambling such as club gaming facilities. The rationale for this argument is that revenues from the former type of gambling largely remain in local communities while the latter are drained to large corporate, perhaps overseas shareholders, and to state governments, at the expense of local governments who experience a weakening commercial land tax base along with increasing demands on local welfare services.

Although the economic benefits of local gaming venues may increase some locations' land values, increases in local petty crime in the vicinity of gaming facilities (Friedman, Hakim et al. 1989) may reduce property values in nearby suburbs (Buck 1991).

As local land values are the fiscal base for local governments, such adverse local effects on property values may worsen existing inequalities in provision of public facilities and local government resources, as well as reducing the value of residents' housing investments in these suburbs.

4.3.6 'Earmarking gambling taxes — a 'gambling-for-good-purposes' policy

Most studies of the gambling tax burden measure 'tax incidence', but the overall equity of taxation may also be judged after allowing for how the additional revenue is spent, known as its 'budget incidence' (Musgrave and Musgrave 1989, ch. 15). As many gambling taxes are 'earmarked' or tied in some on expenditures for worthy social purposes, some argue the need to account for the spending side of the budget (Clotfelter and Cook 1989). The evidence nevertheless suggests earmarking gambling revenues has not generally increased overall funding to such programs. The main role of earmarking is political, allaying public disquiet about community coffers profiting from gambling, while neutralising opposition from socially concerned groups and creating a political constituency in favour of gambling.

Hypothecation or 'earmarking' of gambling revenues is a common feature of gambling taxation in many countries. Opposition to gambling on moral or religious grounds has often been defused by tying the use of the revenues to a 'worthy' community purpose. One historian of gambling in the US found although the Puritans objected to gambling for private profit, based on biblical stories of God's will on important decisions being revealed by casting lots, this moral opposition did not apply to gambling which profited the community. Many major and enduring public projects in the US were financed from earmarked proceeds of public lotteries (Rychlak 1992).

Earmarking is a political tool that can be used to reduce taxpayer resistance and political conflict over tax measures (Peters 1991, 237). Earmarking gambling revenues to community purposes such as public education, arts, sports, hospitals or welfare services increases its acceptability to the general public. It also tends to soften opposition to legalised gambling from groups critical of gambling's social costs, and creates a constituency favouring gambling (Clotfelter and Cook 1989).

This use of earmarking is characterised by Rubner (1966) as an instrument for political laundering of 'dirty money' by governments feeling guilty at profiting from gambling. In Australia, examples of such earmarking

There is some evidence disadvantaged groups or low income earners are deliberately targeted in location of gambling facilities. Kaplan (1989) finds lotteries are marketed more heavily in poor neighbourhoods than elsewhere. Rychlak (1992) suggests gambling operators targeting relatively poor players, social security recipients, working class radio listeners, and billboards in poor areas. Recent evidence to the Social Development Committee of the South Australian Parliament (9 July 1997) claimed operators were targeting low income areas, rather than 'tourist locations', in the placement of gaming machines. Marketing efforts of state gambling enterprises as well as community clubs, and hotels, clearly do not actively trying to offset the general regressive nature of gambling taxes arising from relative tendency of poor people to gamble.

include state lottery revenues set aside for public health or hospital spending, and community welfare levies on gaming machine revenues, and casino profits. Earmarking is also used to make the public sector appear smaller to conservative political constituencies (Campbell and Ponting 1984), or to imply a strong public resource commitment to certain programs.

Another form of earmarking is where a 'tax monopoly' is effectively shared with private bodies by directing a share of gambling revenues to certain industries or associations (Holloway 1973). Examples in Australia include the earmarking of betting revenues to racing industry development, and football pool revenues to sports funds (Collins, Hunt et al. 1988; CGC 1997). Such 'profit sharing arrangements' were sometimes a form of 'compensation' for government decisions adversely affecting industry profitability, for example establishing off-course totalisator agency betting (TABs) in competition with racing clubs' on-course betting. Gambling revenues have also been used to provide public support to certain industries like hotels or clubs in times of declining fortunes. Such hidden subsidy arrangements have been criticised for their lack of transparency, and because of ethical questions about governments sharing taxation powers with private interests (Collins, Hunt et al. 1988; Holloway 1973; Rubner 1966).

As noted above, in the debate over the distributional effects of gambling taxation, some have argued for a 'budget incidence' approach, which accounts for how revenues are spent as well as how they are raised. Some suggest for example, that regressive effects of gambling taxes are offset by spending revenues in poor neighbourhoods. For example, Karcher (1989) argues that spending gambling revenues on programs in poor neighbourhoods benefits reduces the regressivity of gambling taxation.

However, other research shows such 'budget incidence' of gambling taxes to be even more regressively distributed than just the tax burden, with government expenditure financed by gambling revenues generally benefitting relatively well off income groups. For example, earmarked lottery and casino gambling revenues in the US and Canada have been shown to be spent disproportionately on activities enjoyed by higher income households rather than on those benefiting the poor (Borg and Mason 1988; Campbell and Ponting 1984; Livernois 1987b).

Earmarking is sometimes considered a 'tax-price' for public goods, making governments more efficient and accountable for the type and extent of services they provide (Musgrave and Musgrave 1989, 222). However, in practice earmarking is not necessarily advantageous to public accountability and fiscal management (Rychlak 1992). One effect is to reduce the transparency of how taxation powers are used (Hughes 1996). Another is to avoid proper budget scrutiny and evaluation of the effectiveness of public spending, whether for gambling addition counselling or racing industry development programs. Often 'off-budget', such public assistance may not be evaluated against other priorities for government revenue-raising in the way that on-budget expenditures are (Campbell and Ponting 1984).

Pressure on governments to permit more and expanded forms of gambling have resulted partly from the political influence of private gambling interests which wish to reverse ailing industries such as racing, hotels or clubs by assigning a portion of gambling profits to industry operators. For example, government measures to expand legal racing betting during the 1930s and 1960s were partly motivated by pressures to support the racing industry. Similarly, allowing the spread of gaming machines during the 1980s can be viewed as substantially a government-organised 'welfare scheme' for hotels and clubs whose profitability was threatened by changing consumer leisure patterns and introduction of random breath testing (Alchin 1989; AIGR and Industry Research Unit 1995).⁷²

There are also issues for budget management. Earmarking gambling revenues does not necessarily produce greater certainty about future revenue sources. Apart from the inherent long term instability of gambling revenues due to the short gambling 'product-life', revenues which are earmarked to particular purposes still remain vulnerable to raids from cash-strapped legislatures (Rychlak 1992; NILECJ 1977; Rose 1986). The volatility and unpredictability of gambling revenues may cause financial management problems for agencies funded substantially from earmarked revenues.

Public perceptions are that gambling revenues contribute importantly to social services, such as hospitals, or education. However, in most cases, earmarked revenues are only a minuscule proportion of total funding for such programs (NILECJ 1977). For example, in the US state of New Hampshire, all lottery revenues were earmarked for education, but never accounted for more than 3% of education spending. Similarly, in Australia, gambling revenues earmarked for programs such as hospitals or health programs provide only a small share of total program costs. For example, Victoria earmarks a portion of its \$298 million lottery revenues to hospitals. However its budget for hospital services exceeds \$2 billion. Queensland earmarks poker machine and lottery revenues to sports and recreation, but according to Commonwealth Grants Commission data spends less on a standardised basis than other states on the 'culture and recreation' category. Likewise, the \$97 million of racing

⁷² According to Black (1995) video lottery terminals were recently introduced in Manitoba, Canada as a 'welfare scheme' for hotels.

and lottery revenues earmarked to hospital funding in SA compares with the state's hospital services budget of around \$700 million (CGC 1997).

This raises the critical question of whether earmarking gambling taxes have provided significant additional funding for a particular public program or whether they are a political deception. The consensus is that earmarking revenues does not severely restrict legislatures' flexibility in spending if expenditures can be substituted within the general budget. Earmarking merely reshuffles government spending and revenues rather than increase resources for the funded social programs (Weinstein and Deitch 1974; NILECJ 1977; Clotfelter and Cook 1989; Rychlak 1992; Clotfelter 1994; Jackson, Saurman et al. 1994). Earmarking can even reduce overall funding for such programs because earmarked sources of funds may be taken into account in deciding budget allocations (NILECJ 1977; Kaplan 1989).

This view of earmarking as a political device may be supported by CGC data on Australian state spending on social services (CGC 1988, 1992, 1997). Preliminary analysis suggests states which earmark gambling revenues have lower rather than higher standardised per capita public spending on those programs supposedly benefiting from earmarking. Further research may be illuminating.⁷³

4.3.7 A 'voluntary' tax?

As a tax on a discretionary expenditure, gambling taxes are often viewed as 'voluntary', and therefore fair and painless. Those viewing gambling tax as voluntary tend to discount its regressive effects.

As J.S. Mill commented (Holloway 1973, 38), 'The indulgences of the poor are as fit subjects for taxation as the indulgences of the rich'. Rubner comments that:

'On moral grounds the taxation of bread is socially abhorrent, but the same moral indignation cannot apply to heavily taxed cigarettes, despite the obvious (relative) hardship that they bring to smokers who are poor. To plead for a more lenient tax treatment of gamblers who are poor, not on the grounds that gambling is an essential expenditure, but that the poor spend money on gambling, does not arouse my enthusiasm'. (1966, 64-5)

Reflecting a widely held view that essentials should face lower taxation than luxuries, Rubner continues:

'It is right and proper that the constituent parts of consumption taxation should be slanted in a way that makes the burden fall least oppressively on the poor or essential goods. Essentials, like bread and bus fares, ought to be largely exempt. Some goods (alcoholic drinks, for example, permit an inherent form of progression in the tax schedules. The most rabid advocate of progressive taxation will concede that the social evil of a proportionate consumption tax is lessened when much of the total indirect tax is placed on 'avoidable' or luxury expenditure. On that score, surely gambling taxes are the least obnoxious of non-progressive taxes. The rough justice involved in taking away in taxes the same proportion of stake money from rich and poor punters is surely a price worth paying for collecting efficiently the highly moral taxes on gambling'.

There is also the issue of horizontal equity. Other 'luxuries', the entertainments of the well-off, for example, overseas holidays, recreational goods and equipment, restaurant meals, etc are not comparably taxed (Johnson 1985). At present, most items of recreational and leisure expenditure in Australia are not subject to taxation, falling outside the ambit of the main instruments of consumption taxation — Commonwealth wholesale sales tax and customs and excise taxes. High gambling taxation alongside minimal taxation of other recreation or leisure activities is horizontally inequitable.

Current proposals for radical indirect tax reform, to include state government taxes including gambling tax, would tax expenditures on recreation and leisure at similar rates, and improve horizontal equity. However, uniform gambling tax rates under a goods and services tax (GST) could have serious consequences for some parts of the gambling industry, which are presently taxed at relatively low rates to offset higher cost structures (Chapman, Beard et al. 1997).

Page 173 Empirical analysis of this issue is difficult. States choosing to earmark revenues to particular purposes may be those inclined to spend more on such purposes because of community values supporting such purposes. Nevertheless broad level analysis of expenditures by Australian states based on Grants Commission data for 1995–96 suggests that of the four states earmarking revenues to the racing industry, two spent more than the national standard on recreation, and two spent less. Of the three states earmarking lottery revenues to health services, only one spent above average on health services. Only one of three states levying community benefit charges spent more than the national average on social services. Hence, on the face of it, evidence that earmarking effects the level of public spending on particular purposes is not strong in Australia. However, further analysis at a more disaggregated level and for a different time period may produce more definite results.

A GST also raises the issue of whether consumption tax policy should continue to distinguish between 'essentials' and 'luxuries' such as gambling. A uniform GST levied on net expenditure would collect only a third of present revenues levied on gambling. An additional \$2 billion of revenue would need to be raised through higher taxes on other goods and services if a GST were to replace states' gambling taxes. In effect, lower gambling taxes would be financed by higher taxes on 'necessities' such as food, clothing or childcare under a revenue neutral and uniform GST, if specific taxes on gambling were abolished.

The argument that gambling taxes are 'voluntary' and therefore painless could be said about a tax on any item that is not a necessity of life (Clotfelter and Cook 1989).

As Suits (1979b) points out, the argument confuses a distinction of form with one of economic substance. As monopoly is equivalent to a tax on consumers. The suppression of competing suppliers is the coercion involved in gambling taxation, a compulsory tax in a different guise.

'The excise tax on a bottle of liquor is no less a tax because the buyer is free not to purchase it if he chooses; indeed, one reason sometimes advanced for such taxes is precisely to reduce consumption. Nor is the price to the buyer and the revenue burden on him any different where the state establishes a legal monopoly of liquor sales, ... which simply incorporates the erstwhile tax into the final monopoly price of the product.'

Furthermore, the aggressive marketing of gambling to low income groups and heavy gamblers raises important economic, political and moral issues about gambling as 'voluntary' taxation. Clotfelter and Cook (1989) found the concentration of play meant marketing strategy was aimed at encouraging more usage among established players, rather than at recruiting new ones. The view of gambling taxation as 'voluntary' is severely undermined where demand is created by intensive marketing at the gullible or uneducated, and where the consumer 'choices' are those of gambling 'addicts'. As noted earlier, a large share of gambling revenues come from compulsive gamblers, for whom 'voluntary' taxation is a misnomer. This issue is explored further in section 5 below.

4.4 Are gambling revenues economical?

'Unless there are strong reasons to believe that people are participating in lotteries against their own interests or that lottery operation creates strong externalities, lowering the take-out rate would increase net welfare. If on the other hand, lotteries as seen as a social evil, as they seem to have been in every state and province before 1964 — then a higher rate may be justified as a sumptuary tax'. (Brinner and Clotfelter 1975)

In a conventional economic framework, welfare is improved, the lower the tax rate on gambling because higher taxes distort consumption or production decisions (Brinner and Clotfelter 1975; Johnson 1976; Clotfelter and Cook 1987; 1989).

State governments' increasing share of national tax revenue in recent years may imply a rising economic cost of taxation, because of the narrow and fractured, and therefore economically distorting, tax bases on which state governments have relied for higher revenues (Albon 1997).

The rapid expansion of state gambling tax revenues since the early 1990s is an element in increased state taxation. However, as shown in sections 2 and 3, the surge in gambling revenue since the early 1990s has been accompanied by a declining rate of taxation on gambling, on a widening base. The differences in tax rates on gambling have also been narrowing. Expansion of gambling revenue may not necessarily imply greater efficiency losses from gambling taxation.

As Brinner and Clotfelter (1975) point out, any evaluation based on demand curves and conventional applied welfare concepts rests on assumptions that individuals are best able to judge what is good for them and that there are no externalities in consumption or production. Indeed, the economic impact of regulating gambling to limit its social harm is likely to be more significant than the efficiency consequences of gambling taxation. The economic costs and benefits of current gambling taxation are examined below.

4.4.1 The efficiency costs of state gambling taxes

The economic efficiency cost of gambling taxes depends in part on whether they fall on consumers as consumption taxes, or whether they capture from gambling operators the windfall gains arising from government restrictions on competitive supply of gambling services. It

xlvii

also depends on whether high gambling taxes effectively discourage gambling activity or attribute its costs to those who generate them. Taxes on gambling might also be viewed as efficiency-promoting 'user charges' for the legitimacy and implied government guarantee of operator probity that is bestowed on the industry by tight public regulation and control.

Where revenues can be raised from taxes on 'economic rent', the efficiency costs of taxation (excess burden)

4.4.2 Taxing economic rents in the gambling industry

can be minimised (see Musgrave and Musgrave 1989, 282). As Rubner (1966) notes, as well as obtaining revenue, taxes may have the equity objective of transferring to the state 'private windfall profits generated as a result of state actions'. Where governments restrict gambling activity, 'economic rents' or windfalls accrue to the few enterprises permitted to provide gambling services. An important role of gambling taxes is to capture these unearned rents for public revenue (Holloway 1973).⁷⁴ Surveying current gambling taxes in Victoria (Chapman, Beard et al. 1997) concluded taxation of economic rents was a key objective of state gambling tax policy, and 'capturing these rents ... appeared to be the main role of much gambling taxation'. One approach to the taxation of such economic rents is to sell the rights to conduct gambling operations to the highest bidder, through up front bidding for a licence.⁷⁵ Such one-off licence fees for casino and gaming machine licences have become an important element of gambling 'revenues' although in effect, they represent returns from a public asset sale, and are treated as such by the Australian Bureau of Statistics. For example, casino licence fees were paid to Queensland and the ACT in 1992-93, to Victoria in 1993-94 and 1994-95, and to NSW in 1994-95 (CGC 1997, 134). In Victoria, initial casino licence fees totalling \$358.4 million (Chapman, Beard et al. 1997) compare with Victorian casino taxes of \$306 million between 1993-94 and 1996-97 (ABS 1997). However, up-front licence fees will only fully extract economic rents if bidding is competitive. There are reasons to doubt this has been the case in Australia, with political controversy and conflict, accusations of

political patronage during selection processes in all states (McMillen 1996a). As Grinols (1996) points out, the potential monopoly- and geographic market power involved in granting a casino licence provide incentives for 'rent seeking' by gambling operators, and encourage 'directly unproductive profit seeking', wasting economic resources and eroding democratic decision-making processes. Bilateral or even multilateral negotiations between potential operators and a state government, make it difficult to assess whether the full market price of granting the gambling monopoly is reflected in the fee paid by the winning tenderer. Government objectives such as promoting development or tourism, as well as financial receipts from the operators, are factors in assessing licence bids, and the licence fee paid may be lower to offset the cost to the operator of subsidising such activities. Equally, the net effect of the licence fee revenue on the budget may be reduced if there are significant public infrastructure costs of establishing the operation. This points to the need for more transparent processes for determining gambling taxes where such taxes are essentially a negotiated payment for the non-competitive assignment of gambling rights (asset sale) to a single or limited numbers of private operators.

By not fully extracting economic rents, state governments are foregoing revenue that has a minimal economic efficiency cost, and which could substitute for other state taxes which are known to have relatively high economic costs, such as business franchise taxes and financial transaction taxes (Albon 1997a).

4.4.3 Gambling taxes as commodity taxes

An important objective of tax policy is to minimise distorting effects of taxation on economic decisions to work, save or invest. Theoretically, revenue is most efficiently raised if the economic distortion ('marginal deadweight loss') from an additional dollar raised by the tax equals that raised from other taxes. This approach is known as 'Ramsey taxation'. Others argue diverse tax rates on different forms of gambling should be made uniform, and gambling tax rates also made comparable with tax rates or other recreation or leisure expenditures.

Whether such taxes on rents fall on the supplier, or are passed on to the consumer depends on whether a position of monopoly is fully exploited in practice. In principle, however, taxes on monopoly profit are paid by the supplier because supply is already at profit maximising levels (Musgrave and Musgrave 1989).

This is an approach recommended for other industries with significant economic rents, such as the mining industry. Because of uncertainty about future taxation, and the risk aversity of firms, competitive bidding will not extract all rents, and hence ongoing taxation/profit sharing is a common supplement to auctioning licences. See Church (1985) for discussion of these issues and an extensive bibliography.

<u>Ramsey pricing</u> Key elements in assessing the theoretical efficiency of gambling taxes are the level of the (marginal) tax rate, and thus the impact on its 'price', ⁷⁶ and the elasticity of demand in response to changes in price. ⁷⁷ In the case of gambling, these are not evident,

as taxes may apply to turnover or player losses, while reliable estimates of gambling demand elasticities are not available.

As shown in section 3, gambling taxation in 1995–96 averaged 34% of gambling expenditure, or 51% on an *ad valorem* basis⁷⁸ if expenditure (ie, player loss) is viewed as the 'price' of gambling. The highest taxed form of gambling was lotteries at 82%, with the lowest rate applying to the net takings of casinos, taxed at an average of around 20%, ⁷⁹ or 24% ad valorem. Gaming machine takings were taxed at around 27% and racing at around 37%. ⁸⁰

Most taxes on gambling are relatively low compared to rates for other excisable goods. Albon (1997a) estimates *ad valorem* rates of taxation of 89% on beer, 234% on spirits, and 42% on wine. Tobacco pays 212%, while petrol and cars pay around 120–130%.

Gambling is, however, taxed higher than most goods subject to sales tax. The current standard Commonwealth wholesale sales tax rate is 22%. Tax rates on gambling are also high compared to those on other recreational expenditures. Many recreational expenditures such as on entertainment services are outside the ambit of the Commonwealth wholesale sales tax or state taxes, and therefore face low or zero rates of taxation.

Furthermore, even low tax rates on gambling might have a high efficiency cost if gambling demand were very price sensitive. For example, Albon (1997a), estimates that at a 35% gambling tax rate, an own price elasticity of demand for gambling of -0.4 would imply a marginal deadweight loss similar to that of wine, at between 10 and 22 cents in the dollar. More elastic demand, at say -1.0, would raise the economic cost of gambling taxation to the high levels estimated for tobacco taxes (40c in the dollar).

However, with more than two thirds of total gambling revenues coming from lower-taxed gambling activities, the assumed 35% rate may only have application for a small share of revenue such as that derived from lotteries and racing. Implicit tax rates on lotteries are extremely high (over 400% *ad valorem* on net expenditures), but demand is likely to be particularly impervious to 'price' or odds of winning.

As can be seen from Table 11 above, taking a tax rate of 5%, which is the average applying to gambling turnover in Australia, gambling taxes would have an average efficiency cost (marginal deadweight loss) of 8 cents in the dollar at an elasticity of -1.5 and of 2 cents in the dollar for an elasticity of -0.4. At a gambling tax rate of 34%, the present rate calculated on gambling expenditure, the marginal excess burden would range from 12 cents in the dollar for inelastic demand, up to 64 cents in the dollar in the case of elastic demand.

<u>Gambling demand elasticities</u> Because of the varying characteristics of different forms of gambling, and their catering to different audiences with different propensities for heavy betting (Weinstein and Deitch 1974), it is likely demand elasticities, and therefore optimal tax rates, will differ for various types of gambling.⁸¹ It has

⁷⁶ In the following analysis, the tax base is taken to be gambling expenditure. Nevertheless, because the 'price' of gambling is unclear, so too is the theoretical tax 'base'. Most studies of determinants of gambling demand take the 'price' of gambling to be a function of the takeout rate that is, of gambling expenditures. However, the theoretical tax base might be gambling turnover or gambling expenditures, depending on what consumers are 'purchasing' when they gamble and the structure and level of payouts, ie, the odds of winning and concentration of prizes. For some gambling products the price may be better reflected by turnover, for others by gambling expenditures (player losses).

⁷⁷ If gambling has significant complementary or substitution effects on other taxable expenditures, the effect on other tax revenues of increased gambling tax rates is an additional factor in assessing efficiency costs. Not enough is known about cross price elasticities to assess this affect, but any effects are unlikely to be large.

⁷⁸ Sales and excise taxes are usually expressed as a 'tax exclusive' or 'ad valorem', basis. The ad valorem tax rate expresses the tax rate as a percentage of the net-of-tax-price, that is, the ratio of tax to 'net price kept by the seller' (Musgrave and Musgrave 1989, 250). This results in higher percentage tax rates than rates expressed as a percentage of the gross price paid by the consumer.

⁷⁹ Note that this does not include initial license fees for casinos. See p. 24 above.

⁸⁰ That is 37% and 59% ad valorem. As noted earlier, racing taxes are usually levied on gross turnover, with an average tax rate on turnover around 5% in 1995–96. Similarly, the implicit lottery tax was 32%, or 47% *ad valorem*.

⁸¹ Weinstein and Deitch (1974) summarise the characteristics of different gambling types at Table 12.1.

been suggested for example, that demand for lotteries is not influenced by the supply price of the commodity—'demand for 100,000 pounds is highly inelastic in millions of gamblers' (Rubner 1966). Similarly, it is suggested gamblers will be more concerned about the odds and hence more responsive to tax/price changes, where there is a good chance of winning any particular bet (Weinstein and Deitch 1974).

Table 11: Economic cost of gambling taxation (cents per dollar of revenue)					
Marginal excess burden for varying tax rates and price elasticities Elasticity					
Tax Rate (%)	Inelastic demand of -0.4	Elastic demand of -1.5			
5	2	8			
22	8	37			
35	12	64			
42	13	80			
48	15	95			
51	16	103			

Empirical research on characteristics of gambling demand has provided little practical guidance for taxation policy and design (Reece 1984; Collins, Hunt et al. 1988; Clotfelter and Cook 1989). Existing studies of gambling demand elasticities usually focus on only one type of gambling, eg, racing, or lotteries and relate to the United States and are of limited usefulness because the cross price elasticities with other forms of gambling are not known.⁸²

It is likely however, that

- demand for gambling as a whole is more price inelastic than demand for any particular type of gambling
- demand for some gambling forms is likely to be more inelastic than for others
- demand is likely to be considerably more elastic in the medium and longer term (when there is greater competition from new gambling products, and other entertainments) than in the short term when price may have little effect on demand for a product innovation
- demand for a particular type of gambling is likely to be sensitive to the price and availability of close substitutes, including illegal or interstate gambling

The few overseas studies on this issue suggest that:

- lotteries draw gamblers from racing,
- one type of lottery competes with other types of lotteries, and
- lotteries in one state compete with lotteries in neighbouring states
- some forms of gambling compete with illegal gambling but others do not

(Stover 1990; Simmons 1987; Weinstein and Deitch 1974; Suits 1977a).

Most gambling tax analysis assumes that gambling behaviour is relatively unresponsive to the level of taxation, making it an efficient source of revenue. The incidence of gambling taxes is also typically assumed to fall on

⁸² Early studies of gambling demand were for racing only. These show demand for racing betting to be relatively price responsive, with uncompensated elasticities of demand averaging around -1.5%. However, without knowing how expenditures on racing relate to other gambling expenditures, or what the underlying elasticity is for gambling as a whole, it is difficult to draw a firm conclusion about the effect on government revenue of reducing the tax rate (Reece 1984; Collins, Hunt et al. 1988).

gamblers (eg, see Rubner 1966) implying the supply of gambling services is highly flexible, and consumer demand relatively unresponsive to the price of gambling.

Some studies of uncompensated price elasticities of demand in racing or lotteries find demand for specific gambling products relatively elastic, raising the possibility that a cut in gambling tax rates could under some circumstances raise government revenues.

However, surveying elasticities of demand for various lotteries (Clotfelter and Cook 1989; 1990) concluded that reducing the implicit tax rate/increasing lottery pay-out was a risky strategy for increasing revenues compared to alternative options.

Surveying existing research on demand elasticities for gambling, (Haig and Reece 1985) found Australian gambling tax rates approximated optimal tax rates in terms of revenue maximisation and Ramsey pricing during the early 1980s.

<u>Uniform tax rates</u> Because of the complexity of applying differential rates of taxation to every commodity, and the scope for exercising political influence to levy discriminatory taxation, tax policy has moved away from 'Ramsey pricing', towards uniform commodity tax rates.

Taking this approach some argue tax rates on different forms of gambling should be similar in the interests of tax neutrality (Alchin 1983). This argument is also extended to gambling tax rates vis a vis other recreation or leisure expenditures.

However, replacing existing gambling revenues with a proportional tax on net expenditures would require a rate of taxation on gambling of around 34%. This would increase the rates of taxation on casino and poker machine gambling and drastically reduce it on lotteries.

Considered in the context of a 15% goods and services tax, a uniform tax on gambling expenditures would raise only around \$1.5 billion of revenue, a loss of \$2 billion compared to current receipts. A greater proportion of this revenue than at present would come from casino and gaming machine gambling, and less from lotteries. It is noteworthy that the Asprey Report recommended retaining specific benefit taxes in moving to broad based consumption taxation (Groenewegen 1983).

4.4.4 Collection costs of gambling revenues

Gambling taxes typically cost more to collect than most other taxes, although how much so is a matter of debate. Proponents argue gambling taxes are easy and convenient to collect, with minimal compliance costs (Rubner 1966). Opponents cite the low net return of revenue as evidence of the high economic cost of gambling taxation (Borg, Mason et al. 1991). At issue is whether to count the payment of prizes and the costs of regulating or running gambling enterprises as tax-collection costs.

Collection costs add to the resource costs, and therefore the economic costs, of taxation. Direct, progressive taxes are typically more costly to collect than indirect taxes. (Peters 1991) found collection costs of UK taxes to range from 5% of tax receipts for income and social insurance taxes, and VAT, to around 0.5% for excise taxes, and 2% for local rates. In Australia, income tax administration costs around 1% of revenues to collect, while sales tax costs just over 0.5% (Collins, Hunt et al. 1988).

However, state government tax systems are relatively narrow, making them more costly per dollar of revenues to administer than taxes on broader bases. This is a particular issue for the less populous states. The benchmark for efficient state taxes used by Nieuwenhuyen (1983) was 2% of revenues, while the NSW Tax Task Force (Collins.

Hunt et al. 1988) found the cost of tax administration in Australian states ranged from 0.4 to 2.6% of revenues.

The compliance costs of gambling taxes, whether on consumers or providers, are not a significant issue in the literature.⁸³ As regards collection costs, significant resort to casino or gaming machine revenues is a relatively recent public finance phenomenon and racing taxes are often partly collected for the industry. Hence most estimates of gambling tax collection costs are administration costs of lotteries.

Surveying lotteries in various countries in the 1960s, Rubner (1966) found costs of raising revenue ranged widely, from 3% to 40% of sales. This is a similar finding to NILECJ (1977), and Mikesell and Zorn (1986) for US lotteries. However, there are economies of scale in provision of lotteries (Rubner 1966; Johnson 1976; Livernois 1987a; Clotfelter and Cook 1990), and it appears overall collection costs of lottery revenues in US and Canada are around 15% (Weinstein and Deitch 1974; Johnson 1976; Clotfelter and Cook 1989, 1990).⁸⁴

In NSW Collins, Hunt et al. (1988, 91–2) found collection costs of gambling taxes were higher than for other state taxes, ranging from \$6 to \$120 per \$1000 of net revenue. Collection costs for NSW poker and gaming machine taxes, and TAB were around 1–2% of net revenue or less in the mid 1980s. State lotteries revenues cost around 13% to collect. Based on data collected by the Tasmanian Gambling Commission, lottery revenues presently cost between 5% and 13% of net revenues to collect in larger Australian states, but this exceeds 30% in smaller states.

More recently Madhusudhan (1996) found casino revenues were costly to generate, at around 12% of casino tax revenues in Colorado. In Victoria, casino regulation costs a minimum \$12.5 million (Chapman, Beard et al. 1997), representing around 10% of state casino tax revenues (ABS 1997).

Like the estimates by Collins, Hunt et al. (1988, 91–2), NILECJ (1977), Mikesell and Zorn (1986) and Madhusudhan (1996), the collection costs of lotteries cited by Borg, Mason et al. (1991 and 1993) relate to net revenues rather than sales, gross receipts or turnover. The latter argue comparing the operating cost of lotteries with gross receipts is misleading because a lottery with 10% operating costs, 40% prize pool, and 50% profit or surplus is gathering not \$50 but \$100 of gross revenue for every \$50 of net revenue collected. Their estimated collection costs, including prize pay-outs as costs, range from 37% to 58% of every net dollar collected by US lotteries. The resource costs per dollar of revenue are considerably higher than other conventional taxes when measured on this basis.

This approach is challenged by others, on the grounds that prizes and most operating costs are the costs of providing and regulating gambling rather than merely taxing it (Clotfelter and Cook 1989a; Cooper and Cohn 1994; Johnson 1976; 1985). The administrative cost of gambling taxes include costs of regulating gambling to ensure its fairness or prevent criminal infiltration. In NSW Collins, Hunt et al. (1988, 91–2) also argue some costs of collecting revenue from gaming machines should properly be attributed to regulation of the gambling industry.⁸⁵

Regardless of the approach taken, it appears gambling taxes rank poorly on collection costs compared to most major taxes. However, gambling taxes compare more favourably with important state taxes such as land taxes,

If gambling taxes are viewed as 'voluntary' payments by gamblers, compliance cost is not an issue for gambling taxpayers. As levies on gambling operators, some gambling taxes may be more burdensome because of their complexity. For example, Collins, Hunt et al. (1988) noted 'unnecessarily high compliance costs' imposed by the complex NSW poker machine tax. However, often entangled with other regulation of the industry, such compliance costs may be difficult to distinguish from regulatory costs of liquor or gambling regulation. In NSW, for example, soccer pools, Lotto and lottery taxes had a single collection point, while gaming machine taxes are coordinated with liquor licences to hotels. Some collection costs such as for racing or poker machines also include costs of collecting revenues on behalf of certain sections of the industry, or in ways which advantage some types of gambling enterprise over others so collection costs also include costs of administering 'industry assistance'.

Weinstein and Deitch (1974) found operating expenses of US lotteries were 10–15% of sales. Johnson (1976) found it cost 15–25% of sales to run Canadian lotteries. Later studies by Clotfelter and Cook (1989, 1990) found lottery operating costs of around 10% of sales.

⁸⁵ There were also difficulties in distinguishing costs associated with gambling tax collection from costs associated with regulatory and revenue collection functions of the Liquor Licensing Board.

payroll taxes or business franchise fees. Furthermore properly distinguishing regulatory costs may reduce the apparent high cost of collecting state gambling taxes.

The preferable approach to measuring gambling tax collection costs depends on the objective of gambling policy (Johnson 1976). If the primary purpose of licensing gambling activities is to raise revenue, it is appropriate to include regulatory costs or operating costs of state-run gambling enterprises. In this case, the regulatory and promotion costs of creating and protecting the tax base (from declining consumer interest and illegal competitors or tax evasion), are a necessary cost of obtaining revenue from gambling, and are therefore a cost of tax collection.

For example, it is widely accepted that the primary purpose of state-run lotteries is to raise revenue (Clotfelter and Cook 1989). Operating expenses are significantly boosted by heavy promotion and advertising (Weinstein and Deitch 1974; Clotfelter and Cook 1989; 1990). Ref Collins, Hunt et al. (1988) noted collection costs of NSW lottery revenues were 'biased upwards by the promotion necessary in conducting the lottery in an appropriately entrepreneurial manner'.

For other forms of gambling it is less clear cut. Casino gambling policy in Australia has been motivated by industry development as well as revenue considerations, while the easing of restrictions on other gambling operations such as TAB or gaming machines was also partly aimed at reducing illegal gambling or supporting the hotel industry (McMillen 1985; McMillen and Eadington 1986; Eadington 1987; McMillen 1996a; 1996b). Increasing 'privatisation' of gambling in Australia makes it less appropriate to count operating expenses of gambling enterprises as a cost of public finance.

The pervasive involvement and complex objectives of government in various sectors of the gambling industry make it difficult to draw a clear line between the economic costs of generating (taxable) gambling profits and the public financial costs of administering taxes on gambling activities.

From a economic rather than public finance perspective, the resource cost of regulating and operating gambling activities as well as costs of transferring any revenues to the public sector enters into the collection costs of gambling revenues. However, in this broader perspective, the economic costs of generating taxable gambling profits must be balanced against economic benefits of expanding recreational opportunities for consumers. These, and other issues of economic and societal costs, are considered in section 5.

4.4.7 Taxes on sin and social costs

In the public mind, high rates of taxation on activities such as gambling reflect their status as either 'sumptuary' or 'sin' taxes, with the attractive possibility of reducing undesirable activities as well as raising revenue. If society considers gambling a 'demerit' good to be discouraged in the interests of a wholesome society (Musgrave and Musgrave 1989, 58), gambling taxes may improve social welfare by reducing gambling activity. Similarly, if providing or participating in gambling results in significant adverse consequences for others, economic resources will be used for more desirable social purposes if these activities are taxed at higher rates reflecting the social costs of those 'externalities' (Musgrave and Musgrave 1989, 294). Gambling may have unwelcome effects on society which extend beyond the issue of 'problem gambling', as discussed in section 5. The pattern of Australian gambling taxes suggests ('sumptuary' taxation) objectives of discouraging gambling, or penalising the most socially harmful forms of gambling ('Pigovian' taxation)⁸⁷ are not predominant in the design of gambling taxes. The rates of taxation on gaming machines, agreed to be most addictive and producing the highest rates of problem gambling, are relatively low. Taxation of lotteries, generally seen as benign and less likely to generate social costs (but see below), is very high.⁸⁸ Gambling tax policy appears to be directed more at maximising revenue than discouraging gambling or taxing most heavily the most addictive forms of gambling, gaming machine and casino gambling. For example, reviewing Victorian gambling taxes, Chapman, Beard et al. (1997) found that, 'given the relative rates of taxation and perceptions about the relative harm of the various gambling products, taxation does not directly target the problem of gambling effects of the various productions'. The study concluded that 'there is little evidence that the tax instruments are being used to levy more punitive taxes on those gambling products deemed to have the higher negative external costs.'

⁸⁶ Alchin (1989) found NSW lottery costs were rising and therefore net revenue falling due to the increasing need for heavy marketing and promotion to maintain consumer interest.

⁸⁷ This 'user pays' or Pigovian principle is a common element in public discussion of tobacco and alcohol taxation. See Albon (1997b).

⁸⁸ The main element of Pigovian taxation in the design of gambling taxes is perhaps implicit in licence fees charged to new gambling operations or for poker machine licences, reflecting the extent to which increased geographic availability of gambling facilities increases access and therefore the extent of problem gambling and other adverse locational externalities.

More fundamentally, governments' own actions as advocates and promoters of gambling destroy the credibility of claims for high gambling taxes as primarily a 'sumptuary tax policy' (Stocker 1972; NILECJ 1977; Reece 1984; Mikesell and Zorn 1986; Clotfelter and Cook 1987, 1989; Peppard 1987; Alchin 1989; Rychlak 1992; Hughes 1996).

However, the limited use of gambling taxes to raise the price of more harmful forms of gambling may be because the predominant role of gambling taxation is in capturing economic rents created by gambling regulation. If gambling taxes were designed primarily to meet sumptuary or Pigovian objectives, they would be unlikely to effectively tax these economic rents.

It may also be that taxation is a blunt instrument for achieving such broader goals of gambling policy. Regulation of gambling may be more effective at restricting gambling and limiting the harmful effects of problem gambling than higher gambling tax rates. ⁸⁹ In particular, as noted above, gambling taxes are very regressive, so higher gambling taxes may conflict with the usual social objective of redistributing income in favour of the poor. Because excessive gambling impacts on a gamblers' family and friends, high gambling taxes may worsen financial difficulties for problem gamblers, and may itself create adverse 'externalities' for those children and spouses dependent on heavy gamblers for financial support. ⁹⁰ That is, prohibitively high rates or 'user pays' taxes on gambling may produce more gambling problems than they prevent.

There are a wide range of estimates of gambling's 'social cost'. Different studies have differing definitions of adverse externalities from gambling,⁹¹ or treat 'transfers' between gamblers and other individuals differently.⁹² Measuring the social cost of gambling in Australia, or its impact on public finances, is beyond the scope of this study, although it is an important area for further research.

Nevertheless, estimates of broad magnitudes may be revealing. The prevalence of 'problem' gambling is calculated to be around 5% in New South Wales (AIGR 1995).⁹³

A recent Victorian survey found a 3% incidence in that state before the casino opened (AGB–McNair 1995). In North America, it is observed that the more recent studies of problem gambling have the highest rates of problem gambling, of 6% or higher in some states or provinces (NCW 1996), that the incidence is higher in states with more forms of gambling (Clotfelter and Cook 1989), and that lotteries are an increasing problem for gambling addicts (Clotfelter and Cook 1989; Rychlak 1992; Kaplan 1989). A pessimistic view is perhaps given by reference to US estimates of US\$13,200 per problem gambler. In this case, the social costs of a 2% incidence of problem gambling in Australia would be around \$3.5 billion, rising to \$10.5 billion for a 6% incidence of problem gambling. Towards the more conservative end of the spectrum, using the narrower definitions underlying estimates for NSW by the Australian Institute of Gambling Research, the social costs of excessive gambling are much lower. Sasuming a 1% incidence of pathological and 'core'

⁸⁹ Taxes on tobacco or alcohol have long been justified as 'sin taxes', intended to discourage socially undesirable or harmful behaviour, although they may be overused on these grounds. Albon (1996) shows that the 'external' social costs of tobacco taxation in Australia would have to be much higher than current estimates if current tobacco taxation levels were to be justified on Pigovian grounds. Comparing the high and regressive US implicit lottery taxes with (lower) taxes on alcohol and tobacco (Clotfelter and Cook 1987, 535–36) also finds rates of implicit tax on state-run lotteries are higher than appear justified by (subjective assessments of) 'negative externalities' of this form of gambling.

⁹⁰ Conventional economic analysis of 'externalities' typically define away the problem of 'externalities' imposed on other household members by individual members' decisions, by blurring the distinction between households and individuals.

⁹¹ Economic analyses of social costs exclude the harm done by the gambler to himself. Public policy either based on gambling as a demerit good, or on a 'paternalistic' philosophy may take a different view.

⁹² The overall social cost of compulsive gambling in the US in the 1980s has been estimated at between around \$40 and \$80 billion pa (Henriksson 1996; Kaplan 1989).

⁹³ Rates of problem gambling were half that of NSW in WA and Tasmania where gaming machines were confined to casinos.

⁹⁴ Estimates of the social cost of gambling per problem gambler range from \$US13,200 to \$US130,000 (Goodman 1994; Henriksson 1996).

⁹⁵ The costs, derived in part from case studies of individuals, related to productivity losses, job change costs, legal system impacts, family and individual impacts including divorce costs, bankruptcy costs, and treatment costs, and were limited to those for pathological and 'core' problem gamblers, less than 1% of the NSW population.

problem gamblers, social costs of excessive gambling in Australia in 1995–96 using these estimates would be around \$154 million pa.

GOVERNMENT AS GAMBLING ENTREPRENEUR

5

'The story of how governments get involved in expanding their gambling operations is very much a story of chasing. It comes about more through anxiety and inadvertence than through thoughtful and considered public policy — or, for that matter, through venal intent ... It is a story of people with good intentions making bad bets and then chasing their losses instead of leaving the game'. (Goodman 1995)

Analysis of gambling tax policy must range wider than for other taxes. Unlike for other taxes, the government directly controls the size of the gambling tax base because of traditional proscriptions against gambling. For governments seeking extra revenues, the level of gambling activity is more amenable to manipulation than tax rates. Hence, the main influences on levels of gambling activity and revenues historically, as noted in previous section, have been the introduction and promotion of new gambling activities by governments.

While moderately responsive to the price or tax rate, gambling activity is more importantly influenced by the capricious nature of consumer demand. Interest in a particular form of gambling often wanes quite quickly. The short and uncertain life cycle of gambling 'products' makes necessary continued promotion and active marketing and product innovations to maintain consumer interest. When revenues decline, governments are thus prone to promote gambling in order to stabilise their gambling revenues. The potential economic efficiency costs of gambling tax levels pale into insignificance alongside the efficiency implications of governments 'creating the market' for gambling in this way, rather than 'creating gambling for the market' (NILECJ 1977). Even more perplexing for tax analysis is if governments generate consumer demand for gambling through misleading advertising and promotion, including to compulsive gamblers. If demand is underpinned by 'children', 'madmen', and 'fools' (or at least the ill informed), the conclusions of conventional economic analysis based on sovereignity of the fully informed consumer become questionable (Clotfelter and Cook 1987; 1989). This is all the more so as governments permit the introduction of the more addictive forms of gambling, like poker machines.

As gambling markets become saturated, drawing on local residents rather than visitors and on the diminishing ability of heavy gamblers to finance gambling from savings or borrowings, the sustainability of gambling activity and taxes also becomes doubtful.

Governments actively encouraging consumers to buy one good over others, and their apparent financial dependency on continued expansion in the range of permitted gambling activities raises profound economic, as well as political and ethical issues. Gambling regulations are eroded — and public interest or social concerns subjugated to private and government commercial interests — as gambling markets decline. The government's role changes dramatically, from regulator of a potential harmful enterprise to promoter of that enterprise (Goodman 1995). Such changes may have fundamental implications for the credibility of government and the integrity of political and regulatory systems.

Such wider economic, social and political issues of gambling taxation policy⁹⁶ are canvassed below.

5.1 Are gambling revenues and regulations sustainable?

Whether gambling as a source of revenues and economic development is more than just a 'quick fix' for pressing taxation and unemployment problems has been questioned (*The Economist* 1997; Borg, Mason et al. 1991; Black 1995; Henriksson 1996; Madhusudhan 1996; McMillen 1996a; 1996b). Some consider gambling is not a sustainable long term revenue base because extensive gambling activity can adversely affect savings, investment

⁹⁶ In North America, casino gaming is associated with poker and gaming machines, unlike in Australia, where most gaming machines are in clubs (although they are an important source of revenue for the 14 casinos). US and Canadian literature on the effects of 'casinos' thus should to be interpreted to encompass gaming machine gambling.

and economic growth (Clotfelter and Cook 1989; Goodman 1995; Weinstein and Deitch 1974).

Gambling profitability may be transitory because of adverse effects on social values of a 'gambling culture'. A gambling culture is said to challenge the ethic of success based on hard work and rationality, and undermine 'public morality'. To the extent that gambling substitutes for education, savings, and entrepreneurial effort as the avenue to wealth, the economy as a whole may suffer (Rychlak 1992). After careful examination of the operation of early US state lotteries, Weinstein and Deitch (1974) find this potentially more damaging than direct social costs of excessive gambling.

The later study by Clotfelter and Cook (1989) of gambling as an tool of public finance concluded that encouraging gambling was:

'a risky experiment to determine whether a system that allocates rewards on the basis of luck will undermine a parallel system that allocates rewards, at least in part, on the basis of effort and skill. Unfortunately the answer, if one ever becomes clear, may not emerge until after it is too late to reverse the process'.

Significant medium to longer term economic costs might also arise from the role of saving and borrowing in financing gambling. Gambling has various potential implications for savings levels, there being long established links between gambling, and 'investment' of savings, and banking or financing activities (Rubner 1966; Holloway 1973; Clotfelter and Cook 1989; Rychlak 1992).

Surveys of gamblers show a substantial proportion of gambling is financed by reducing savings or increasing borrowings rather than by lowering spending on other commodities or services. For example Victoria (1994) suggested 75% of Australian

gambling spending was drawn from housing or savings, or higher debt. Similar conclusions about the overall significance of savings or borrowing in financing gambling emerge from other studies, both in Australia and overseas (AIGR and IRU 1995; NCW 1996; VCGA 1997).⁹⁷

This has important implications for the sustainability of gambling activity. The concentration of expenditures among a relatively small number of heavy gamblers also emphasises the uncertain prospects for future revenues, investment and growth (Clotfelter and Cook 1989). Heavy gamblers are more likely than other gamblers to finance their gambling from debt or reduced savings (NCW 1996). If most gambling expenditures are from the small number of heavy players who are borrowing or savings to finance gambling, current levels of gambling are clearly unsustainable. Current gambling is then being substantially financed from future income and at the expense of future consumption.

Correspondingly, high initial levels of government revenues from a new gambling operation are in effect a 'bringing forward' of revenues, financed by gambling debtors at highly unfavourable interest rates. Financing state government deficits by increasing gambling taxation may well amount to increasing consumer debt at high interest cost among low income gambling households in order to reduce relatively low-interest public sector borrowings. ⁹⁸ This is a public financial strategy that is neither economically efficient nor equitable. Goodman (1995) in his study of US casino gambling, argues that gambling expansion has had major economic opportunity costs, as attention and resources of human capital, investment capital, and government financial and political support have been diverted to gambling from non-gambling ventures.

The long term economic benefit of major investment in Australian casinos are also challenged. McMillen (1996b) argues that Australian states' opportunism in turning to gambling to solve regional economic problems has directed resources away from other industry development which might not have generated adverse social impacts. Contrasting investment in casinos with the long term economic returns that had been reaped on the Newcastle steelworks, Robinson (1997) warns of the risk that the 'whole [casino] kit and caboodle might collapse through an inability to service the capital tied up in these vast but non-productive enterprises'. Limits on longer term government gambling profits are also set by local incomes and rising competition for the gambling dollar. In the early 1980s, Australian economists were already pointing to the limits on the growth of gambling revenues set by the stagnating racing betting (Groenewegen 1983).

Expansion of gambling and increasing gambling revenues may be just a transfer from local businesses. Goodman (1995) argues future casino and gaming machine industry growth in the US is limited by a fixed demand, as revenues are increasingly dependent on gambling by local residents, rather than tourists or visitors.

⁹⁷ The redistribution associated with gambling winnings may also have implications for savings levels (Weinstein and Deitch1974; Borg and Mason et al. 1993).

⁹⁸ Popular commentary draws a close association between the growth of gambling and expansion of pawnbroking at usurious interest rates. For example see Coleman (1997). The government can undoubtably borrow more cheaply than a heavy gambler.

Eadington (1987) concluded that while Australia's new casinos have been aimed to attract tourists,

'a more likely reality is that the main casino visitors are likely to be local. ... If most of the customers of a casino are locals, then its impact on the local economy is considerably less than if the customers come from outside the region. In effect, spending by locals that takes place in the casino is diverted spending in other sectors of the local economy. Thus there is a tendency for the positive economic effects associated with the development of a casino to be offset by dispersed reductions in economic activity elsewhere in the region'.

McMillen (1996a) found 75% of Australian casino patrons were local residents, who generated about 65% of expenditures. By 1997, public commentators (Robinson 1997) were noting that prospects of high revenue returns from visiting Asian gamblers were illusory, as market saturation point had long since been reached. McMillen (1996b) concluded that 'predatory federalism' and 'competition policy' have accelerated the market competition between casinos, between the different forms of gambling and between states. Examining the implications of the National Competition Policy Chapman, Beard et al. (1997) anticipated more intensive competition would erode the economic rents created by restricting gambling markets. The shrinking base for taxing gambling would eventually reduce state gambling revenue.

McMillen (1996b) argued that with the imminent prospect of market saturation, and competitive pressures to refinance for expansion reflecting in increased debt, the casino gambling industry was highly volatile and insecure. This had resulted in several governments granting lower tax rates.

These are similar conclusions to those reached in the US. Thompson and Gazel (1996) cite increasing evidence of that nation's appetite for gambling being satiated. Because the net economic effect of a casino is the sum of effects of non-locals' gambling activities, local income shifted from existing businesses, and social costs associated with gambling activity in the area, the authors claim the inevitable outcome of interstate competition for the gambling dollar has been that most gamblers are local residents. The economic legacy of a casino boom is a reshuffling of burdens and business profits among the local population.

'States will be taxing their own residents, they will not experience net job creation, and they will have to deal with the high social costs resulting from new compulsive gamblers in their midst'. Based on US experience, Goodman (1995) warns that the demands of the new political constituency of casino owners and their workers for tax breaks, subsidies or reduced regulation, may worsen governments' fiscal and debt problems. In Canada, previously-ignored problems of casino and gaming machine gambling came to the fore as revenues levelled out (Black 1995). Unlike companies, which can go bankrupt, move, or sell their business, governments with financial stakes in a local gambling enterprise may be left 'holding the bag' when the gambling industry goes into rapid early decline.

Recent events in Asia, and evidence of difficulties in Australia's casino industry (McCrann 1997; Muller 1997; Lines 1997; Edeson 1998; ABS 1998), appear to confirm

the precarious nature of state governments' gambling revenues. The operating profit of Australia's 14 casinos fell sharply in 1996–97 to 1.2% from 6.5% in 1994–95 (ABS 1998). This corresponds to a fall of 1% in tax receipts after a 27% increase from 1994–95 to 1995–96.

5.2 The government gambling 'guarantor', gambling 'pusher' and gambling addict

'The government has become a pusher. And they are not pushing fire or police protection — only dreams' (Suits 1975, quoted in Mikesell and Zorn 1986).

The main influences on the level of gambling activity and revenues in Australia and elsewhere have been the introduction and promotion of new gambling activities by governments (Haig 1985b; Haig and Reece 1985; NILECJ 1977; Weinstein and Deitch 1974; McMillen and Eadington 1986). Legalisation and regulation in itself increases the extent of gambling, creating a perpetual dilemma for governments. There is also evidence that as gambling profits decline, revenue and economic motives come to dominate gambling policy and governments become active promoters of gambling (Weinstein and Deitch 1974; Johnson 1976, 1985; NILECJ 1977; Haig and Reece 1985; Clotfelter and Cook 1987; 1989; 1990; Clotfelter 1994; Hughes 1996; Kaplan 1979; Goodman 1995; Rychlak 1992; McMillen and Eadington 1986; Alchin 1989; Henriksson 1996) This involvement of governments in promoting gambling to boost public revenues has been the source of ongoing controversy and criticism.

Most economic research on gambling until the mid 1980s focussed on state lotteries, which had been banned for many decades because of problems with dishonest and fraudulent operations (Rychlak 1992; NILECJ 1977; Rubner 1966; Weinstein and Deitch 1974; Holloway 1973; Johnson 1976). Recent emphasis has shifted to casino gambling, including poker and gaming machines as well as table games.

Reviewing the economics of lottery gambling, Clotfelter and Cook (1987) note the troublesome implications for economic analysis of gambling promotion:

'It is a familiar caveat in welfare economics that consumer surplus loses its significance in the case of 'children and madmen" and where consumers are seriously misinformed about the good being consumed. In the case of lotteries, individuals often have only the most rudimentary notion of the odds of winning or the amount taken out for state revenue. Furthermore, it may be true that lotteries increase the prevalence of compulsive gambling. These concerns call into question the appropriateness of using observed demand to measure the benefit of consuming lottery products, especially given the use of advertising to stimulate play'.

Gambling promotion and marketing aims to increase the social acceptibility and respectability of gambling, as well as to broaden its appeal to consumers (Weinstein and Deitch 1974; Clotfelter and Cook 1989; Goodman 1995; Eadington 1984; Lorenz 1996).

The legitimacy provided by government endorsement and regulation of gambling is critical to an industry which fundamentally relies on consumer confidence as to operator integrity and probity for much of its market. ⁹⁹ For example, Eadington (1984) notes the casino industry's historical status as a 'pariah' industry, and the role played by state governments in legitimising its recent growth. Because of the particular potential for fraud or dishonesty, tight government regulation of the gambling industry is important for consumer confidence and participation. Chapman, Beard et al. (1997) note the importance of government probity checks for the viability of new gambling enterprises, including for Internet or broadband network gambling. By increasing the integrity of games, regulation was a 'service to the industry, rather than a regulation of it'. ¹⁰⁰

The role of government in gambling advertising and promotion is troublesome because of its subtle manipulation of public behaviour in the name of 'voluntary taxation'. NILECJ (1977) argues that other than in national emergencies, such pervasive government marketing and promotion of gambling was 'inconsistent with a free society'.

'Persuasion may be more dangerous than coercion for it is an unseen force. A person realises that he is forced to pay a tax, but not that he is enticed to gamble'.

Studies of state-run lottery operations have documented the critical role of advertising and promotion in sustaining gambling demand (Weinstein and Deitch 1974; Rychlak 1992). Clotfelter and Cook (1989) found that promotion and of gambling is not generally directed at the recreational gambler. Because of the important role of the heavy gambler in generating revenues for gambling operations and governments, advertising and marketing is focussed on increasing heavy gambling (Eadington 1984; Clotfelter and Cook 1989; Grinols 1996; TasCOSS 1995).

The first time the state emerged as 'a gambling entrepreneur' in the US was in the 1970s (Weinstein and Deitch 1974). In that decade revenue-motivated state lotteries were initiated as a response to tax resistance and demographic pressures for higher state spending, with a bandwagon effect as non-gambling states reacted to the revenue drain to contiguous states.

While state agency advertising and promotion of gambling was initially to provide basic information, the drive for revenue produced a new more aggressive marketing emphasis, designed to broaden appeal and public participation. Weinstein and Deitch (1974) found that with initial sales usually the high point, maintaining sales came to require constant promotion, through prize innovations and game changes. Such findings have been confirmed in other studies, eg, Johnson (1976) and Clotfelter and Cook (1989).

Scrutinising the 'sales pitch' of US lotteries as a case study of government gambling policies in the late 1980s, Clotfelter and Cook (1989) shows demand for gambling is significantly influenced by misleading advertising and poor or inaccurate information about the odds of winning or the real value of prizes. Mikesell and Zorn (1986) observe marketing practices by government gambling enterprises which would not be permitted by a private firm, and question whether state enterprise should operate at this ethical level. (Chapman, Beard et al. 1997) notes US evidence that protected state run gambling operations use misleading information to preserve their revenue base.

In recent years, state governments in other federations have viewed expansion of the gambling industry as promising economic gains for consumers (Brinner and Clotfelter 1975; Suits 1979; Clotfelter and Cook 1987; 1989), and through tourism-based economic development strategies (NILECJ 1977; McMillen 1985; McMillen

⁹⁹ McMillen (1996b) has argued that public acceptance of legal gambling has largely rested on its promise of improved social services funded through gambling revenues.

 $^{^{100}}$ The review recommended that in a more competitive gambling environment, the 'market', rather than government would be left to establish the integrity of gambling business operators.

and Eadington 1986; Eadington 1987; Goodman 1995; Madhusudhan 1996; Thompson and Gazel 1996; McMillen 1996b; *The Economist* 1997).

Governments' pursuit of revenue and jobs has been the force behind the proliferation of casino and gaming machine gambling in the US and Canada, as well as in Australia. Goodman (1995) has characterised the role of government since the 1980s as the 'dream merchant', promoting casino and riverboat gambling as 'magic bullets for dying economies, economic development strategies of last resort'.

Several authors (eg, Clotfelter and Cook 1989; Goodman 1995; Eadington 1987; McMillen and Eadington 1986; Black 1995; Henriksson 1996) document the role of gambling industry, and economic or financial pressures on governments to endorse new gambling activities. Thompson and Gazel (1996) links the corporate pressures for legalising casino and poker machine gambling in the US with companies recognising, and pursuing, the benefits of being first operator in a new jurisdiction.

The growth of gambling in Canada is explained by Black:

'Gambling mania in Canada is a comparatively recent phenomenon, which emerged in the late 1980s and early 1990s as an adjunct to deficit hysteria and economic decline. In brief, the deep recession of 1990–91, combined with federal government downloading of fiscal responsibilities, generated substantial increases in unemployment rate and budget deficits in most provinces. Seeking 'quick-fix' solutions that would simultaneously alleviate the fiscal crisis and create jobs, many provincial governments, inspired by the US example, turned to gambling as a potential — indeed, almost ideal — solution, a painless way to extract additional revenues from their citizens and a source of new economic activity'.

Goodman details 'the politics of more gambling' for the US.

'The initiatives for expansion have come from a well heeled gambling industry hoping to increase profits and from politicians hoping to create jobs, raise public revenues and keep taxes down. Politicians often adopt a hold-your-nose-and-legalise-it position. Frustrated by their failure to find other solutions to stimulate economic growth, city and state legislators have turned to gambling companies to create an economic development policy of last resort'.

In Australia Hughes (1996) draws attention to the 'new and curious kind of state interventionism' embodied in the rise of casinos since the 1980s.

'The casinos are state-sanctioned, privately owned monopoly enterprises, highly centralised, highly taxed, highly promoted, and intimately connected with industry development objective in tourism and entertainment'.

Hughes also criticises the role of Australian governments in promoting new forms of gambling, observing a 'corporatist' alliance between government and industry.

The nature of gambling promotion, marketing and advertising in Australia remains to be documented in detail. ¹⁰¹ Nevertheless McMillen (1996) has shown how government regulation has made an important contribution to the commercial stability, viability and legitimacy of the casino industry in Australia. McMillen argues that rather than being a threat to casino profitability, many aspects of casino regulation are a form of industry protection. The gambling industry relies on the legitimacy and regional monopoly achieved through government regulation to maintain public confidence and secure profits (McMillen 1996b).

Furthermore, governments themselves have had a substantial commercial as well as political stake in the success of casinos, including through providing development assistance and the legitimacy of licences, and securing exclusive access to the regional market for each casino. Some government authorities are also shareholders in private gambling operations (McMillen 1996a).

¹⁰¹ There are requirements such as disclosure of games' rules, but apparently no requirements on gambling operators to advertise the true value of prize payouts, or the odds of winning. The advertising and marketing behaviour of state gambling enterprises such as lotteries or TAB is mainly constrained by the relevant state lottery or TAB legislation, or states' fair trading legislation. Federal trade practices laws against restraints on competition, or 'misleading or deceptive conduct' also potentially apply, including to government gambling 'businesses' if not specifically exempted by legislation.

McMillen (1985, 1996a, 1996b), McMillen and Eadington (1986) and Eadington (1987) argue Australian state governments have allowed revenue interests and the profit interests of the industry to dominate gambling policy objectives in recent years. Just as revenue maximising objectives have constrained regulation of state lotteries (Clotfelter and Cook 1989), close relationships between casino operators and regulators, and reluctance by politicians to undermine the legitimacy of casino policy, has made control of casino gambling difficult. Particularly during economic slumps, the potential for casinos and tourism to inject short term activity into stagnating regional economies gives casino corporations a level of political access and strategic power which most other interest groups do not have. As gambling markets decline, regulation increasingly emphasises economic considerations of profit for government and private operators.

A consequence is the diminishing capacity of governments to establish effective control over casino market developments. Regulation is increasingly susceptable to being undermined 'in the American tradition' (Eadington 1987). A pattern of corruption and erosion of regulations as the gambling market declines is the experience in the US and Canada (Goodman 1995; McMillen and Eadington 1986; Henriksson 1996)

According to McMillen (1996b) no Australian governments are now getting the balance right between economic, regulatory and social imperatives. McMillen (1996) argues the close, precarious and unequal relationship between governments and a international industry has resulted in a number of regulatory failures, with flaws and shortcomings in selection processes as well as in internal control of casino operations. The changed power relationships risked governments assisting their local casino 'at considerable public cost'.

Goodman (1995) characterises the process by which US governments get drawn into promoting gambling as 'the chase'.

'Politicians begin by legalising some restricted forms of gambling — pari-mutuel horseracing or a lottery, or perhaps limited-stake betting in casinos — and then, after watching their initial successes decline, or as they become worried about another state siphoning their gambling dollars, they frenetically start upping the ante. They legalise new games or they get rid of restrictions and betting limits on their old ones. As the chasing process progresses, more hard-core forms of gambling are rapidly legalised in a copycat race by state after state. As each state's gambling menu expands, its gambling policy begins to spin out of control, and governments and state residents soon find themselves with gambling enterprizes they never imagined when their process of legalisation first began'.

He concludes:

'That we have also arrived at a point in time where state government agencies are studying demographics and psychological behaviour of state residents in order to encourage them to gamble more, not only raises serious moral questions, but calls for a more fundamental reassessment of the nature of government's role in the business of gambling'.

5.3 Government gambling revenue addicts in the eyes of citizens

'It is clear that state governments of all persuasions are now busily engaged in the promotion of gambling for revenue raising and tourism development purposes'. (Hughes 1996)

'Citizens should be able to look to government to protect their basic rights, not to promote destructive behavior or false promises'. (Goodman 1995)

Controversy over governments' role in promoting gambling is longstanding. In *First Principles of Public Finance* de Viti de Marco accused government of having a vested interest in gambling and therefore encouraging it, rather than pursuing the public good. The Italian Treasury, he observed, 'incited people to gamble by diffusing gambling booths throughout communities that did not ask for them and even in communities whose authorities opposed their introduction' (de Viti de Marco 1936).

Rubner (1966) dismissed concerns that heavy resort to gambling taxation would induce governments to promote it in the UK, noting high taxation of alcohol and tobacco had not produced this result. Advertising of a proposed lottery would be informational only. Rubner (1966) argued for state ownership of gambling ventures as a state monopoly maximised revenue, and because 'whenever the customer is an addict of a harmful practice, or in danger of becoming one, profit making is sordid'. Until recently (see Hughes 1996), the UK has maintained a

policy of meeting unstimulated gambling demand (Eadington 1987; McMillen and Eadington 1986; Campbell and Ponting 1984).

By contrast Stocker (1972) was highly critical of the 'Asian flu'-like spread of state lotteries as an instrument of US public finance in the early 1970s. Arguing for private ownership and taxation of gambling rather than government sponsorship Stocker (1972) noted that:

'Under pressure of fiscal circumstances our states seem to be establishing a tradition of converting activities once held sinful and illegal into, not merely acceptable legitimate practices but objects of public promotion'.

He warned that government promotion of gambling raised serious questions as to the proper role of government in regard to individual consumption decisions, arguing that:

'the fiscal crisis of the states, in leading legislatures to cast about desperately to find forms of sin in which a state monopoly can be established, will bring about a fundamental alternation in our traditional view of the relation of government to the private economy'.

'The real significance of the lottery and other forms of publicly sponsored gambling lies not in the revenue but in the change it signifies in our national conception of the nature and functions of government. Government sponsorship and encouragement of any form of private consumption, especially those widely held to be deserving of opprobrium seems to me to be dubious public policy'.

Kaplan (1984) has argued that 'by legalising more types of gambling and making it easier for people to engage in such activities, states may be creating a moral dilemma: a choice between their responsibility to provide for the general welfare of citizens on the one hand, and encouraging people to participate in activities that may be pathological on the other'.

NILECJ (1977) argue that vested institutional interests in expansion of gambling revenues left government gambling authorities unable to balance competing policy considerations, while the continual need to pander to a fickle public appetitite for excitement, escape and easy money through advertising and promotion degraded the state in the eyes

of the public. According to this study, deceit in lottery advertising shakes confidence in government, with misleading slogans, earmarking illusions and the lack of publicity of the real odds of winning. Instances of corruption or irregularities in regulated or state-owned gambling enterprises shake public confidence further, leading in the view of NILECJ (1977) to the public conclusion that the whole government was 'incurably venal'. The study concluded a state lottery is an unsound way to raise revenue and an ineffective way to fight crime:

'Unlike a traditional "sin tax" which yields revenue while reducing "sin", the lottery can only yield revenue by increasing "sin". Marketing the lottery numbs the state's sensitivity to the public interest and undercuts the voluntariness of public participation. As states promote their games, they engender public disillusion with government and disrespect for the law'.

Weinstein and Deitch (1974) found that while lotteries were well suited to public operation, the traditional role of government conflicted with an active marketing role in gambling. The study argued that government running a lottery or a TAB operation was a gambling entrepreneur, 'selling a product of questionable social utility'. Tight controls were needed to maintain public confidence, and prevent loss of faith about governments exploiting people's weaknesses. The authors judged 'promotional overkill' to be the chief danger of government gambling operations.

Mikesell and Zorn (1986) view government gambling revenues in the context of state business enterprises selling entertainment services. With the merchandising of lotteries intensifying, the authors ask, 'is there a value in state lotteries that is worthy of state production and promotion?' They argue that public institutional interests with an interest in promoting gambling and public gambling revenues could not be counted on to properly balance all its economic, political, social and moral implications.

The marketing practices of government gambling enterprises are also compared unfavourably with private firms. Mikesell and Zorn observe that government gambling operators seldom advertised critical details, odds of winning were not clearly advertised, and prizes not quoted in present values. 'Whether state enterprise should operate at this ethical level is doubtful'.

Similar issues are raised by Rychlak (1992) and Clotfelter and Cook (1989). According to Clotfelter and Cook:

'Some of the lottery's effects are baldly redistributional: many lose so that a few might win. For the most part the amounts lost are not great, and in fact the voluntary nature of participation suggests that even most of the "losers" get something over and above the financial return out of playing. Yet the easy normative conclusions of welfare economics are clouded to the extent that lottery players make purchases based on poor information or incorrect calculations. Especially troublesome is the spectacle of problem gamblers, whose excesses create serious economic hardships'.

Rychlak (1992) argues that the government's role in promoting lotteries was 'an education in values, teaching that gambling is a benign or even virtous activity. ... You do not see the state advertising toothpaste or even for people to brush their teeth. But you do see the state actively encouraging its citizens to gamble'. Such promotion taught that gambling was a good thing. 'It is one thing for the state to condone and tax gambling. It is another thing to promote it'.

Detailing a backlash in the US against activities of politicians and the industry in promoting gambling expansion, Goodman observes that gambling has become for the public 'a symbol of government arrogance'.

'At a time when faith in government is arguably at an all time low, political leaders are asking people to believe that they will have a more secure future through access to more gambling' (1995). Hughes (1996) argues that social value conflicts over gambling can only be contained through Australian state governments playing a neutral role.

'The state should not impose upon civil society either a sponsorship of gamling or a crusade against it ... The promotion of gambling for tourism or entertainment purposes may properly be the province of private organisations but it cannot be the province of governments. ... '

To make it so rendered government 'an instrument of those purposes', and unable to command a claim on 'the allegiance of all its citizens and their diverse moral communities'.

Government playing a role as gambling promoter as well as gambling addict creates concerns for the integrity and credibility of government and political processes. The irresistable temptation of easy revenues has created concerns that governments are excessively dependent on gambling revenues, with questions raised about close relationships with the gambling industry and the government that is supposedly regulating it in the public interest (ACSSA 1997; Goodman 1995; Kaplan 1979; Eadington 1987).

Rychlak (1992) comments that:

'no state seems able to resist the pressure to promote heavily those games it has come to rely on for revenue [yet] a state that is interested in the welfare of its citizens must be willing to look beyond the bottom line'.

AGB–McNair (1995) has found a public belief in Australia that the government is aggressively promoting gambling to maximise its revenue base, without concern about the effects. Survey respondents held the government partly responsible for the community's gambling habits.

McMillen and Eadington (1986), and McMillen (1996a; 1996b) link the controversy over casino policy since the 1980s with 'the disturbing level of scepticism and anger in Australia about the lack of government capacity and entrenched corruption'. These authors observe that public confidence in Australia's commercial sector has been 'severely damaged' by revelations of corporate misconduct and regulatory failures which have raised serious questions about the relationships between governments and powerful business. McMillen warns of rising risks of 'regulatory failure' from the new wave of bigger more aggressively competitive international casinos, with governments in a precarious and unequal relationship with the industry.

'By the 1990s, the dominance of market criteria in gambling development and widespread perceptions that some commercial interests have a privileged position in the policy process have provoked a political backlash ...'

According to McMillen, community groups are concerned 'the priority being given to gambling in economic development is creating a gambling culture which creates new economic problems and threatens fundamental social values'.

Black (1995) shows how some Canadian governments have created a 'fiscal strait-jacket' which necessitates continued dependence on gambling as a major source of revenue, by promising no increases in major (income and sales) taxes, and introducing balanced budget legislation. Referring to the Canadian province of Manitoba, Black observes that:

'the same government that promotes the importance of gambling to the economic and the fiscal health of the province also presents itself as the defender of traditional values and blathers on about the negative impact of progressive taxes on work effort, entrepreneurial activity and the debilitating effects of welfare dependency. ...What are the effects on the psyche of a society where governments,

which are presumably the custodians of public values, seek to achieve their political agenda through the promotion of gambling activities?'

5.4 Is government encouragement of gambling a 'reform avoidance device'?

'The Lottery, with its weekly payout of enormous prizes was the one public event to which the proles paid serious attention. It was probable that there were some millions of proles for whom the Lottery was the principal if not the only reason for their remaining alive. It was their delight, their folly, their anodyne, their intellectual stimulant. Where the Lottery was concerned, even people who could barely read and write seemed capable of intricate calculations and staggering feats of memory. There was a whole tribe of men who made a living simply by selling systems, forecasts and lucky amulets'. (Orwell 1984, quoted in Clotfelter and Cook 1989)

Numerous writers have pointed to the role of gambling as a safety valve for social tensions, and a policy palliative deferring decisions on important taxation or social policy issues. Rubner (1966, 4) argues that as a pervasive social phenomenon, banning gambling might well induce worse behaviour: 'if one evil is repressed by statute, adults in a free society may well opt for another'. Weinstein and Deitch (1974) point to gambling as one of the limited opportunities for the person with small capital to gamble on 'get rich quick' investments. The same authors note that gambling acts as 'an escape valve for social frustrations which might otherwise be expressed in less acceptable ways'. Holloway (1973) also emphasises the 'safety valve' function played historically by gambling, with 'the frustrations of the poor diverted into escapism instead of street riots.

The rewards from gambling are said to coincide with the needs of people with low income, little political influence, and narrowing opportunities, who have time on their hands and gain both self esteem and entertainment from the more addictive, continuous forms of gambling (Kaplan 1989; Rychlak 1992). Peppard (1987) has argued that the recent rise in gambling and 'exorcism of the Puritan ghost' arises from thwarted consumption prospects and social frustrations from rising unemployment and falling real earnings since the 1970s:

Lottery tickets are cheap, there are lots of prizes, some of which are huge, and the government guarantees the fairness of the game; testing ones luck is easy and cheap, and the ticket is a new, non-durable good that when it disappoints, stimulates hopes that the next ticket will be better.

Observing a return to gambling taxes as just another normal accepted tool of public finance as in colonial days, Peppard argues that state governments are involved in tax exploitation. Promoting gambling in order to create larger player losses, governments are more than simple commodity vendors, he argues,

'confront[ing] the public with promise of riches in one hand, and an implicit threat of higher taxes or worse — eroding tax bases and unfunded, worthy programs — in the other'.

Describing the government's new role as that of 'predator' in troubled economic times, Goodman (1995) observes that,

'what began perhaps as a reasonable effort to capture for the public coffers, dollars already being bet illegally has mushroomed into an enterprise that is radically transforming the role of government. Asking the question, 'Whose Government?', Goodman observes that in their attempts to solve economic problems with gambling government leaders are further undermining their already precarious credibility with their constituents.

'They are encouraging a public perception that governments can do little to support a healthier economic climate for all citizens, and that the best they can do is provide enormous windfalls for gambling companies and the limited possibility of jobs for those fortunate enough to work for these companies. Kaplan (1979) also views gambling policies as a safety valve for tensions arising from the changing nature of work, and criticises recent expansionary gambling policies as:

'stopgap measures that lull the populace into a state of complacency while social and fiscal problems intensify ... The illusory dream {of winning} can also be used as a method of social control — to placate people by diverting attention from their misfortunes and meaningless lives' (Kaplan 1984). Kaplan argues gambling revenues are used to substitute for dependable, equitable and responsible methods of revenue generation, 'perpetuat[ing] the muddle that many states are in, [and] imped[ing] tax reform and prevent[ing] the implementation of progressive taxes'. Describing gambling as "the bread and circuses" of a civilisation tottering on the brink of social and economic disaster', Kaplan argues that lotteries and other forms

of legalised gambling obfuscate the critical issues confronting our society today, impeding progress toward their amelioration.

'If they are used as escape mechanisms and painless methods of revenue generation, they will have a negative influence on society. They appear as red herrings in a sea populated by a plethora of political jellyfish without the backbone to confront the unpopular but necessary issues of tax reform, fiscal responsibility and long range planning — the only way to cope with the monumental problems of crime, energy, poverty, health, education, pollution, housing and welfare'.

6. CONCLUSION: CURING 'GAMBLING TAX ADDICTION' AND PREVENTING 'PUBLIC REVENUE-CHASING BEHAVIOUR'

Whether state governments are 'too reliant' on gambling revenues depends on broader judgements about recent trends in public policy and governance in Australia, and the consequences for public trust in existing political institutions. State governments have become much more reliant on gambling revenues in recent times.

In the face of diminishing own source taxation options, falling real general revenue grants, perceived constraints on borrowing, and increased pressures to maintain public services as the Commonwealth withdraws, state governments in Australia have turned to gambling taxes as one of the few politically or constitutionally available revenue options. As most state taxes fall on business (Mathews 1977), they are vulnerable to legal challenge or erosion by governments facing sectional industry lobbying or electoral pressures to promote development and jobs.

State business franchise fees, now ruled illegal by the High Court, will inevitably be absorbed into 'Commonwealth government' tax revenues, leaving states ever more vulnerable to Commonwealth fiscal policies. ¹⁰²

As a result state government choices about how much to rely on gambling have virtually disappeared. Virtually all states now permit the full range of gambling activities, and there is almost total uniformity in the extent of their reliance on gambling revenues.

All states now raise between 7 and 12% of taxes from gambling, compared to much wider divergences during the 1970s and earlier decades (Johnson 1985, 80).

The revenue motive for states has been reinforced by the attractions of promoting gambling as a development tool to governments with few other ways of responding to concerns from the electorate about employment and economic security.

But as a form of entertainment, gambling was until recently in long term decline.

To protect revenues, state governments had to actively encourage its expansion.

As Stocker (1972, 440-41) pointed out in the early 1970s, this is an unusual role for governments, possibly unique.

'... there is a world of difference between a government stance of neutrality regarding gambling and one of active promotion. There is no other form of consumption that receives such official encouragement. The nearest examples that come to mind are library services and adult education, both of which are examples of merit wants, which gambling is not. In the closest other examples of state operated monopolies, the liquor monopolies, states have usually been reticent about promoting their wares. In the lottery and off track betting we are seeing for the first time government sanctioning one form of personal consumption over others. ... This raises serious questions about the proper role of government'.

State governments began regulating gambling to protect the public from the consequences of dishonesty and excessive high risk activity. In recent decades they have been using these regulatory powers to generate gambling activity and make it seem benign. By endorsing the integrity of gambling operators and providing a 'stamp of approval', government sanction for

Just as 'reimbursement' of centrally collected states' income tax revenues gave way to 'financial assistance grants' to states, and as state receipts taxes were absorbed into Commonwealth revenues in the 1970s after legal challenge, so too will reimbursement of states' business franchise fees become Commonwealth 'largesse' to state treasuries.

a new form of gambling reduces operator and consumer risks and removes the taint of illegality.

The confusion, or convergence of two different roles of government, that of public guardian and gambling entrepreneur makes governments prone to 'regulator capture' by the industry. The interests of the public, of gamblers and of gambling operators may not always coincide, with the risk that commercial or political considerations might outweigh governments' responsibility to protect consumers or the public from questionable corporate behaviour or harmful effects of gambling.

The potential for private profit from governments assigning monopoly rights to conduct gambling also produces risks to the integrity of political institutions and public policy. Governments reliant on gambling revenue find it difficult to effectively and rigorously regulate the industry. Governments' necessarily close financial and regulatory links with private gambling enterprises contribute to the potential for corruption of the political process, as well as public cynicism and loss of trust in government in its role as regulator.

One method of separating tax and fiscal policy considerations from governments' regulatory functions would be legislation requiring gambling receipts to be placed in trust funds, with restrictions to prevent governments accessing increases in revenues for several years after they accrue, and only then to an extent indicated by long term average levels of gambling revenues.

Gambling taxes may enhance efficiency if used to discourage socially undesirable activities, or to attribute the costs of socially harmful activities to those generating those costs. However, governments make little use of gambling taxes to discourage gambling, or as a 'user pays' (Pigovian) tax on especially harmful types of gambling. Taxation is too blunt an instrument of social policy. Using taxation to discourage gambling generally or to penalise the most socially harmful forms of gambling may create more problems that it prevents. In reality, several other members of a household may depend on a gambler's income, and will also suffer the 'internalising' effects of 'user pays' gambling taxes.

Even so a large share of gambling turnover and revenue appears to be from compulsive gamblers, raising ethical difficulties of exploiting personal vulnerabilities for public revenue gain. Governments active role in promoting or encouraging various forms of gambling belies any claims that gambling taxes have a positive social, as distinct from economic or fiscal, purpose.

Gambling taxes may enhance the efficiency of taxation if they tax 'economic rents' accruing to gambling businesses. Such taxes are much less distorting than other taxes used by state governments.

However, the incidence of gambling taxes remains uncertain. Those levying gambling profits are more likely to fall on economic rents than on gamblers. In general, the more price responsive is gambling demand compared to supply, and the greater are regulatory or other barriers protecting returns in the industry, the more likely a gambling tax falls on monopoly rents and windfall profits rather than on gambling consumers.

It is generally presumed, nevertheless, that the economic burden of gambling taxes falls on consumers. This appears the case for state lotteries and TAB, where taxation takes the form of a public gambling enterprise setting monopoly prices. With more intense competition or deregulation reducing economic rents accruing to gambling operators, gambling taxes are increasingly likely to be passed on to consumers.

Where gambling taxes are passed on to gamblers, they are a very regressive form of revenue raising. However, gambling is only a small part of total taxation. Its regressive effects are counterbalanced by progressive taxes such as the federal income tax and by the overall progressive effect of the way government revenues are spent. Nevertheless, widening access to gambling, especially gaming machines and casinos, is worsening the potential regressivity of gambling taxes. Most are already more regressive than existing alternative federal or state taxes. When gambling revenues rise in importance, preventing a decline in the fairness of taxation requires either increasing progressive taxation, or replacing gambling revenues with less regressive taxation sources.

There is no evidence that either of these have happened. Gambling revenues have risen, while progressive taxes are being cut, and eroded by tax evasion and avoidance. Indeed what evidence there is suggests gambling revenues may in fact be the a means of delaying reform to increasingly fractured state land and payroll tax bases, and avoiding more general problem of strengthening the nation's tax base and reforming federal/state finances.

But in the longer term, gambling revenues are not as reliable for the states as they at present might seem. As gamblers' savings must eventually be replenished and debts repaid, any boom in gambling partly brings forward, rather than adds to government revenues.

As well, importing revenues from other states by encouraging gambling and attracting gamblers across state borders may result in only a temporary boost in revenues as other states retaliate and as interstate competition for gambling business further reduces tax rates on gambling.

Over time the requirements of the National Competition Policy will also reduce the ability of state governments to tax monopoly rents from gambling. Regulations may be more 'industry protection' than 'social' or 'consumer' protection but it can be virtually impossible to disentangle the two.

And the move towards a national Goods and Services Tax (GST) will disrupt state gambling taxes if, as is likely, gambling expenditures are included in the tax base.

A GST will fall more heavily on gambling consumers more than existing gambling taxation, some of which is probably borne by gambling operators and their shareholders. Uniform gambling taxes could impact relatively heavily on racing, which has a higher cost structure than other gambling industries. With a 15% GST, most gambling would experience substantial cuts in taxation, of around \$2 billion a year, unless state governments retained specific gambling taxes. The existence of economic rents and the exemption of clubs from company taxes, justifies continued specific taxation of gambling enterprises along with more consistent use of regular tenders or public auctions of gambling operator licences.

For many people gambling is an occasional benefit in the form of recreation or entertainment. However, those addicted to it end up being huge net losers. The same applies to governments. While public profit or enjoyment from gambling is acceptable taken in moderation, substantial dependence on it implies future costs will exceed its present benefit. Taxation of gambling provides revenues for public purposes that may come largely from windfall profits by operators, or may be justified to discourage gambling. However, promoting gambling or encouraging its extent in order to protect or enhance taxation revenues is not a philosophically, economically or socially defensible strategy because of the wide costs to society embodied in such an approach. The time is ripe for appointment of an independent, expert commission of inquiry into national gambling policies and the role of the Commonwealth government in achieving an appropriate gambling policy balance.

Government policies which lack an ethical framework are increasingly impacting on low income earners and other vulnerable communities, who are simultaneously blamed for social problems such as those arising from gambling and other addictions. The collusion of state governments seeking revenue and investors, and corporations seeking profits is a significant political and ethical issue, that may have a lot to do with the low regard in which politicians and governments are presently held in Australia and in other democracies (Saul 1997; Self 1985; McMillen 1996a).

BIBLIOGRAPHY

Abt, V., J.F. Smith, et al. (1985). The Business of Risk. Lawrence, University Press of Kansas.

AFR (1997). Vietnamese Drug Bosses Linked to Hanson Death Threats. *Australian Financial Review*: 3, 11–12 October.

AGB-McNair (1995). Community Gambling Patterns. Melbourne, Victorian Casino and Gaming Authority.

Albon, R. (1997a). 'The efficiency of state taxes'. Australian Economic Review 30(3): 1–15.

Albon, R. (1997b). 'Efficient tobacco taxation: Ramsey and Pigovian consideratins'. Canberra, ANU.

Alchin, T.M. (1983). 'Gambling taxes: the milch cow of New South Wales'. Economic Papers 2(1): 75-83.

Alchin, T. (1989). 'Taxation of gambling in Australia'. Economic Analysis and Policy 19(2): 167-84.

ACSSA (Anglican Community Services of South Australia) (1997). Fair Game; Gambling in South Australia. Adelaide, ACSSA.

ABS (Australian Bureau of Statistics) (1995). *Sport, Recreation and Gambling Industries Australia, 1994–95 Preliminary*, ABS Cat. No. 8692.0. Canberra, AGPS.

- —— (1997a). *Gambling Industries Australia*, 1994–95, ABS Cat. No. 8684.0.
 —— (1997b). *Taxation Revenue*, *Australia*, 1996-97. ABS Cat No 5506.0.
- —— (1998). Casinos, 1996–97. ABS Cat. No. 8683.0.

AIGR (Australian Institute of Gambling Research) (1995). *An Examination of the Socioeconomic Effects of Gambling On Individuals, Families and the Community, Including Research into the Cost of Problem Gambling in NSW*. Sydney, Casino Community Benefit Fund Trustees.

AIGR and IRU (Industry Research Unit (1995). Report of the First Year of the Study into the Social and Economic Impact of the Introduction of Gaming Machines to Queensland Clubs and Hotels, AIGR, University of Western Sydney, Industry Research Unit, University of Queensland for the Department of Family Services and Aboriginal and Islander Affairs.

Black, E. (1995). 'Gambling mania: lessons from the Manitoba experience'. *Canadian Public Administration* 39(1): 49–61.

Bongiorno, B. (1985). 'Gambling and Crime', in *Gambling in Australia*, G. Caldwell, B. Haig, M. Dickerson and L. Sylvan, eds. Sydney, Croom Helm.

Borg, M.O. and P.M. Mason (1988). 'The budgetary incidence of a lottery to support education'. *National Tax Journal* 41: 75–85.

Borg, M.O., P.M. Mason, et al. (1991a). 'The incidence of taxes on casino gambling: exploiting the tired and poor'. *American Journal of Economics and Sociology* 50(3): 323–32.

— (1991b). The Economic Consequences of State Lotteries. Westport, Conn. and London, Greenwood, Praeger.

—— (1993). 'The cross effects of lottery taxes on alternative state tax revenue'. *Public Finance Quarterly* 21: 123–40, 2 April.

Brinner, R.E. and C.T. Clotfelter (1975). 'An economic appraisal of State lotteries'. *National Tax Journal* 28: 395–404.

Buck, A.J. (1991). 'A Von Thunen model of crime, casinos and property values in New Jersey'. *Urban Studies* 28(5): 673–86.

Butler, J.B. and J.P. Smith (1992). 'Tax expenditures on health in Australia'. Australian Economic Review (2).

Campbell, C.S. and J R. Ponting (1984). 'The evolution of casino gambling in Alberta'. *Canadian Public Policy* 10(2): 171–75.

Chapman, R., J. Beard, et al. (1997). A framework for National Competition Policy Reviews of Gaming Legislation. Canberra/Sydney, Centre for International Economics.

Church, A.M. (1985). *Natural Resource Taxation Policies*. Canberra, Centre for Research on Federal Financial Relations, ANU, Research Monograph 41

Clack, P. (1996). 'The Money Machines. Gaming in Licenced Clubs Across Canberra', *The Canberra Times*, 7 September.

Clotfelter, C.T. (1979). 'On the regressivity of state operated 'numbers' games'. *National Tax Journal* 32 (543–48).

—— (1994). 'Review of: The economic consequences of state lotteries'. *Journal of Economic Literature* 32(1): 147–48.

Clotfelter, C.T. and P.J. Cook (1987). 'Implicit taxation in lottery finance'. National Tax Journal 40(4): 533-46.

—— (1989). Selling hope: state lotteries in America. Cambridge Mass. and London, Harvard University Press.

—— (1990). 'On the economics of state lotteries'. *Journal of Economic Perspectives* 4: 105–9, Fall.

Coleman, M. (1997). Gambling bug brings back the pawnbroker. The Canberra Times, September.

Collins, D., P. Hunt, et al. (1988). *Review of the State Tax System; Tax Reform and NSW Economic Development*. Sydney, New South Wales Tax Task Force.

CGC (Commonwealth Grants Commission) (1988). Report on General Grant Relativities 1988 Update. Canberra, AGPS.

—— (1992). State tax sharing and	health grants 1982. Canberra, AGPS
----------------------------------	------------------------------------

—— (1997). Report on General Grant Relativities 1997 Update. Canberra, AGPS.

Cook, P.J. and C.T. Clotfelter (1993). 'The peculiar scale economies of Lotto'. *American Economic Review* 83(3): 634–43.

Cooper, S. and E. Cohn (1994). 'Equity and efficiency of state lotteries'. *Economics of Education Review* 13(4): 355–62.

de Viti de Marco, A. (1936). First Principles of Public Finance. London, Jonathan Cape.

DeBoer, L. (1985). 'Administrative costs of state lotteries'. National Tax Journal 38: 479-87, December.

—— (1986). 'When will state lottery sales growth slow'. *Growth and Change* 17: 28–36, January. Dickerson, M. (1992). The estimation of the extent and degree of gambling related ppersonal problems in the Australian population, AIGR, cited in TasCOSS (1992).

Donzinger, A.J. (1973). *The State Lottery; a Not So Regressive Tax*. Western Economic Association, Claremont. Eadington, W.R. (1984). 'The casino gaming industry: a study of political economy'. *Annals of the American Academy of Political and Social Sciences* 464 (July): 23–35.

Eadington, W. (1987). 'Approaches to the legalisation and commercialisation of casino gambling throughout the world: causes and public policy concerns'. *Faces of Gambling*, Sydney, National Association for Gambling Studies.

Economist, The (1997). Why casinos are a bad bet. The Weekend Australian, 1–2 February.

Edeson, J. (1998). Profits of Australia's 14 casinos drop 86pc. The Canberra Times.

Filer, J.E., D.L. Moak, et al. (1988). 'Why some states adopt lotteries and others don't'. *Public Finance Quarterly* 16(3): 259–83.

Friedman, J., S. Hakim, et al. (1989). 'Casino Gambling as a "Growth Pole" Strategy and Its Effect on Crime'. *Journal of Regional Science* 29(4) 615–23, November.

Goodman, R. (1994). *Legalised Gambling as a Strategy for Economic Development*. Center for Economic Development. MA, Amherst.

—— (1995). The Luck Business: the Devastating Consequences and Broken Promises of America's Gambling Expansion. New York, Free Press.

Grinols, E. (1995). 'Gambling as an economic policy: enumerating why losses exceed gains'. *Illinois Business Review* April: 6–12.

Grinols, E.L. (1996). 'Incentives explain gambling's growth'. Forum for Applied Research and Public Policy 11(2): 119–124.

Groenewegen, P. (1983). Public Finance in Australia: Theory and Practice. Sydney, Prentice-Hall.

Gruen, A. (1976). 'An inquiry into the economics of race-track gambling'. *Journal of Political Economy* 48 (1): 169–77.

Gulley, D.O. and F.A. Scott (1989). 'Lottery effects on pari-mutuel tax revenues'. *National Tax Journal* 42(1, March): 89–93.

—— (1993). 'The demand for wagering on state-operated Lotto games'. *National Tax Journal* 46(2): 13–22, June.

Guthrie, R.S. (1981a). 'The effect of competition on tax revenues in the casino gaming industry'. *National Tax Journal* 34(2): 261–65.

—— (1981b). 'Taxing horserace gambling: the revenue potential'. *Public Finance Quarterly* 9(1).

Haig, B.D. (1984). Gambling in Australia 1920/21 to 1980/81. Canberra, Australian National University.

Haig, B. (1985a). 'Expenditure on legal gambling', in *Gambling in Australia*. G. Caldwell, B. Haig, M. Dickerson and L. Sylvan. Sydney, Croom–Helm: 71–78.

—— (1985b). Legal gambling since 1920–21. Gambling in Australia. G. Caldwell, B. Haig, M. Dickerson and L. Sylvan. Sydney. Croom–Helm: 28–44.

Haig, B. and B. Reece (1985). Explaining and predicting expenditure on, and revenue from, legal gambling.

Gambling in Australia. G. Caldwell, B. Haig, M. Dickerson and L. Sylvan. Sydney, Croom Helm: 123–35. Hancock, K. (1977). 'The taxation of racing by the Australian States', in *State and Local Taxation*, R.L.

Mathews, ed. Canberra, ANU Press, 280–94.

Heavy, J.F. (1978). 'The incidence of state lottery taxes'. Public Finance Quarterly 6: 415–26.

Henriksson, L.E. (1996). 'Hardly a quick fix: casino gambling in Canada'. Canadian Public Policy 22(2), June.

Hersch, P.L. and J.M. Netter (1989). 'State prohibition of alcohol: an application of diffusion analysis to regulation', in *Research in Law and Economics*. J. R O Zerbe. Greenwich, CT, JAI Press. 12: 55–70.

Holloway, R. (1973). 'More gambling, less tax'. Lloyds Bank Review 21–43.

Honeysett, S. (1996). Gambling tax rakes in \$1bn. The Australian, 16 May.

Hughes, V. (1996). 'Gambling and the State'. IPA Review 48(4): 35-41.

Hunter, B. and R.G. Gregory (1996). 'An exploration of the relationship between changing inequality of individual household, and regional inequality in Australia'. *Urban Policy and Research*, 14(3): 171–82.

Jackson, J.D., D.S. Saurman, et al. (1994). 'Instant winners: legal change in transition and the diffusion of state lotteries'. *Public Choice* 80(3–4): 245–63, September.

Johnson, J. (1976). 'An economic analysis of lotteries'. Canadian Tax Journal 24: 639–51.

—— (1985). 'Gambling as a source of government revenue in Australia', in Gambling in Australia. G.

Caldwell, B. Haig, M. Dickerson and L. Sylvan. Sydney, Croom Helm: 78–93.

Kakwani, N. (1983). 'Progressivity index of sales tax on individual expenditure items in Australia'. *Economic Record* 59: 61–79.

Kallick, M. and e. al (1979). A Survey of American Gambling Attitudes and Behaviour. Ann Arbor, MI, Survey Research Centre, Institute for Social Research, University of Michigan.

Kaplan, H.R. (1979). 'The convergence of work, sport and gambling in America'. *Annals of the American Academy of Political and Social Science* 445 (445, September): 24–38.

—— (1984). 'The social and economic impact of state lotteries'. *Annals of the American Academy of Political Science* 474: 91–106.

—— (1989). State Lotteries; Should the Government be a Player? Lexington, Mass.

Karcher, A.J. (1989). Lotteries. Cited in Ricklak (1992).

Lines, C. (1997). Crown banks on \$290m jewel: shareholder pressure forces Melbourne casino to fast-track purchase of management rights. *The Canberra Times*, 7 October.

Livernois, J.R. (1987a). 'The taxing game of lotteries in Canada'. *Canadian Public Policy* 12(4): 622–27. — (1987b). 'The redistributive effects of lotteries: evidence from Canada'. *Public Finance Quarterly* 15(3): 339–51.

Lorenz, V.C. (1996). 'Gambling dollars ... pennies from heaven?' Forum for Applied Research and Public Policy 98, Summer.

Madhusudhan, R.G. (1996). 'Betting on casino revenues: lessons from state experiences'. *National Tax Journal* 49(3): 401–12.

Martin, R. and B. Yandle (1990). 'State lotteries as duopoly transfer mechanisms'. *Public Choice* 64: 253–64, March

Mason, P.M., S.L. Shapiro, et al. (1989). 'Gaming tax incidence for three groups of Las Vagas gamblers'. *Applied Economics* 21(9): 1267–77.

Mathews, R.L. (1977). Business activity taxes and state financial responsibility', in *State and Local Taxation*. R.L. Mathews, ed. Canberra, ANUPress, 259–79.

Mathews, R.L. and B. Grewal (1997). *The Public Sector in Jeopardy*. Centre for Strategic Economic Studies, Victoria University of Technology, Melbourne.

McCrann, T. (1997). Charity is alive and well — just ask Crown's needy shareholders. *Weekend Australian*, 27–28 December.

McMillen, J. (1985). 'Casino gambling in Queensland: prospects, problems and paradoxes', in *Gambling in Australia*, G. Caldwell, B. Haig, M. Dickerson and L. Sylvan, eds. Sydney, Croom Helm: 94–104.

—— (1996a). 'Risky ventures: Casino regulation in a changing market', in *Lady Luck in Australia*, J. McMillen, M. Walker and S. Sturevska, eds. Sydney, Sydney University Printing Service: 2–19.

—— (1996b). Gambling as an industry. Place your bets. Gambling in Victoria. M. Cathcart and K. Darian–Smith. Melbourne, The Australian Centre, University of Melbourne: 49–70.

McMillen, J. and E. Eadington (1986). 'The evolution of gambling laws in Australia'. *New York Law School Journal of International and Comparative Law* 8.

Mikesell, J. (1989). 'A note on the changing incidence of state lottery finance'. Social Science Quarterly.

Mikesell, J. and K. Zorn (1986). 'State lotteries as fiscal saviour or fiscal fraud: a look at the evidence'. *Public Administration Review* 28: 311–20 (July/August).

Mikesell, J.L. (1994). 'State lottery sales and economic activity'. National Tax Journal 47(1): 165-71.

Morgan, W.D. and J.D. Vasche (1980). 'State revenue potential, parimutuel taxation: a comment'. *National Tax Journal* 33.

—— (1982). 'A note on the elasticity of demand for wagering'. Applied Economics 14(5).

Muller, D. (1997). Jewel in Kennett's crown is looking decidedly unsteady. Canberra Times, 27 December.

Musgrave, R.A. and P.B. Musgrave (1989). *Public Finance in Theory and Practice*. New York, McGraw–Hill Book Company.

NCW (National Council of Welfare) (1996). Gambling in Canada. Ottawa, Canada.

NILECJ (National Institution of Law Enforcement and Criminal Justice) (1977). *The Development of the Law on Gambling*, US Department of Justice.

Nieuwenhuyen, J. (1983). *Committee of Inquiry into Revenue Raising in Victoria*. Melbourne, Victorian Government.

Peppard, D.M. (1987). 'Government as a bookie: explaining the rise of lotteries for revenue'. *Review of Radical Political Economics* 19 (3): 56–68.

Peters, B.G. (1991). The Politics of Taxation. U.K., Blackwell.

Pinto, S. and P. Wilson (1990). Gambling in Australia, Australian Institute of Criminology.

Quiggin, J. (1985). 'The economics of gambling', in Gambling in Australia,. G. Caldwell,

B. Haig, M. Dickerson and L. Sylvan, eds. Sydney, Croom Helm: 94-104.

Reece, B.F.P. (1984). 'Gambling taxes: a comment'. Economic Papers 3(4): 75-80.

Reece, B.F., D.L. Maynard, et al. (1988). *Commissioned Studies: Review of the State Tax System; tAx reform and NSW Economic development.* Sydney, New South Wales Tax Task Force.

Robinson, P. (1997). Let them eat chips. Sydney Morning Herald.

Rose, I.N. (1986). Gambling and the Law. Hollywood, CA, Gambling Times Inc.

Rubner, A. (1966). The Economics of Gambling. London, Macmillan.

Rychlak, R. (1992). 'Lotteries, revenues and social costs: a historical examination of state-sponsored gambling'. *Boston College Law Review*.

Saul, J. (1997). The Unconscious Civilisation. Ringwood, Victoria, Penguin Books Australia.

Self, P. (1985). Political Theories of Modern Government. London, Allen & Unwin.

Simmonds, S.A. and R. Sharp (1987). 'State lotteries' effects on thoroughbred horse racing'. *Journal of Policy Analysis and Managementt* 6(3): 446–48.

Smith, J.P. (1993). Taxing Popularity. Canberra, Federalism Research Centre, ANU.

Spiro, M.H. (1974). 'On the tax incidence of the Pennsylvania lottery'. National Tax Journal 27: 57-61.

State Government of Victoria. (1994). Review of Electronic Gaming Machines in Victoria. Melbourne.

Stigler, J.E. (1988). Economics of the Public Sector. New York, W. W. Norton & Co.

Stocker, F.D. (1972). 'State sponsored gambling as a source of tax revenue'. *National Tax Journal* 25(3): 437–41.

Stover, M.E. (1987). 'Revenue potential of state lotteries'. Public Finance Quarterly 15(4): 428–40.

—— (1990). 'Contiguous state lotteries: substitutes or complements?' *Journal of Policy Analysis and Management* 9(4): 565–68.

Suits, D. (1975). The economic case against state-run gambling. *Business Week*: 67–68.

—— (1977a). 'Gambling taxes: regressivity and revenue potential'. *National Tax Journal* 30(1): 19–35.

—— (1977b). 'Measurement of tax progressivity'. American Economic Review 67: 437–41.

—— (1979a). 'The elasticity of demand for gambling'. *Quarterly Journal of Economics* 93 (February): 155–62.

—— (1979b). 'Economic background for gambling policy'. *Journal of Social Issues* 43(60).

Sylvan, R. and L. Sylvan (1985). 'Ethics and gambling', in *Gambling in Australia*, G. Caldwell, B. Haig, M. Dickerson and L. Sylvan, eds. Sydney, Croom Helm: 217–31.

Szakmary, A. and C. Szakmary (1995). 'State lotteries as a source of revenue: a reexamination'. *Southern Economic Journal* 61(4): 1167–81.

TasCOSS (Tasmanian Council of Social Services) (1992). *Inquiry into the Social Impact of the Extention of Video Gaming Machines Beyond Casinos in Tasmania*. Hobart, Tasmanian State government.

—— (1995). "Taking Care" Some joint approaches to problem gambling by government, industry and community. Country Club Casino, Prospect Vale.

TGC (Tasmanian Gaming Commission) (1997). *Australian Gambling Statistics* 1972–73 to 1995–96. Centre for Regional Economic Analysis, University of Tasmania.

Thompson, W.N. and R. Gazel (1996). 'Casino gambling gaining ground across America'. *Forum for Applied Research and Public Policy* (Summer): 98.

VCGA (Victorian Casino and Gaming Authority) (1997). *The Impact of the Expansion in Gaming on the Victorian Retail Sector*. Melbourne.

Victoria, State Government of (1994). Review of Electronic Gamng Machines in Victoria.

Vrooman, D.H. (1976). 'An economic analysis of the New York lottery'. National Tax Journal 29: 482-89.

Warren, N. (1979). 'Australian tax incidence in 1975–76; some preliminary results'. *Australian Economic Review* 47: 19–27.

—— (1986). *Changes in Australian tax incidence between 1975–76 and 1984–85*, Centre for Applied Economic Research, University of NSW.

Weinstein, D. and L. Deitch (1974). The impact of legalised gambling: the socioeconomic consequences of lotteries and off-track betting.