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Working Paper

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The size and growth of the Northern Territory's Gambling Industry

Key financial indicators for the Territory's regulated gambling industry

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PREFACE

In early 2016 there were a number of reports in Northern Territory and national media referring to increases in Northern Territory gambling and/or changes in regulations relating to gambling in the Northern Territory. These reports occurred at a time when the authors were engaged in analysing the results of a large prevalence survey of gambling activities and associated harms in the Northern Territory adult population. In order to provide a context for the interpretation of those results it was necessary to undertake summary analyses of some key financial indicators measuring flows of money associated with the Northern Territory's gambling industry. Preliminary analyses of these data indicated large increases had occurred since the time of the previous Territory gambling prevalence survey in 2005. These increases did not occur uniformly across all types of gambling, with little or no change in some types of gambling but very large increases in other types. The combination of recent media interest, substantial but selective increases in some areas, along with a broad but incomplete public awareness of the growth in the Northern Territory-based online wagering industry stimulated the authors to undertake the analyses reported here.

The report focuses on the reported flows of money through different sectors of the Territory's regulated gambling industry and not on gambling undertaken by the residents of the Northern Territory. Key annual financial statistics associated with the regulated gambling industries of all Australian states and territories are reported annually in the Australian Gambling Statistics database (AGSD) (Queensland Government Statisticians Office, 2016a). Extensive analyses are presented here demonstrating the current magnitude of key financial indicators and their growth since the year 2000. The three key indicators analysed are (i) the annual amount of money bet or wagered with gambling providers regulated by the Northern Territory Government (turnover), (ii) that part of the annual turnover that is lost by gamblers to the regulated gambling providers (expenditure), (iii) the annual amounts of revenue collected in licence fees and taxes by the Northern Territory Government from gambling providers it regulates.



Executive Summary

For three decades, annual financial indicators on key monetary aspects of the gambling industry in each of the Australian states and territories have been collated in the Australian Gambling Statistics Database currently managed by the Queensland Government's Statistician's Office. Fifteen years' data from 2000/01 to 2014/15 financial years, adjusted to 2014/15 values, have been analysed to explore the changes in the financial size of Northern Territory's gambling industry, and its various sectors, and to compare these changes with those which have taken place throughout Australia.

In 2014/15, the Northern Territory's regulated gambling industry recorded total annual turnover (bet and wagers) of \$11.84 billion with expenditure (player losses) of \$1.18 billion, but government revenue from gambling was just \$0.068 billion. The Territory, with just about 1% of Australia's population, now has a gambling industry that accounts for more than 6.2% of Australia's total regulated gambling turnover and more than 5.2% of total gambling expenditure, but just 1.2% of the total revenues derived by all the Australian state and territory governments as license fees and taxes from the gambling providers they regulate.

Regulated gambling now plays a significant part in the Northern Territory's economy. In 2014/15, revenues collected from Territory regulated gambling providers accounted for 10% of all revenue raised directly by the Northern Territory Government, and gambling expenditure through these providers was equivalent to more than 30% of all retail trade in the Territory for that year. The size of the Territory's regulated gambling industry in 2014/15 is in stark contrast to 15 years ago in 2000/01, when the Territory's total gambling industry was not particularly exceptional by Australian standards. At that time, the turnover, expenditure and government revenues of the Territory's regulated gambling industry were respectively 1.6%, 1.2% and 0.8% of Australian totals, broadly consistent with the Territory's proportion of Australia's adult population. The intervening 15 years has seen the Territory's regulated gambling industry rapidly expand both in terms of turnover (328%) and expenditure (377%), but with much more modest growth in government revenue (53%). Nearly all these changes were due to increases in online wagering, with combined annual turnover for Territory regulated racing and sports betting gambling activities (mostly online in the Territory) increasing 11-fold to \$9.73 billion, with expenditure increasing even more sharply by 14-fold to \$0.94 billion since 2000/01. Whereas, over the same period, revenues collected by the Territory government from these classes of gambling, despite doubling by the mid-2000s, have subsequently declined back to \$10 million in 2014/15, close to the 2000/01 levels.

In terms of turnover and expenditure, in 2014/15 the Territory industry dominated Australia's combined racing and sports betting industries, accounting for 39.3% of national turnover and 25.8% of national expenditure. By contrast, the Territory government's gambling revenue in 2014/15 from regulated racing and sports betting providers was disproportionately small, constituting just 4.0% of all Australian state and territory governments' revenues derived from racing and sports betting gambling.

Growth in the gaming class of regulated gambling (which is dominated by Electronic Gaming Machines) in the Territory shows a very different story over the past 15 years compared to growth in the racing and sports betting gambling classes. Gaming has shown only modest increases over the past 15 years in the Territory, 12.5% for turnover, 33.3% for expenditure and 73.1% for government revenue. These are broadly similar to growth rates recorded for Australia as a whole. Further, like Australia as a whole, per capita Territory gaming turnover has actually declined over this period because the adult Territory population has grown substantially over this period. Thus, although gaming dominated the Territory's gambling industry in 2000/01 (i.e. 74% of total gambling expenditure), by 2014/15 the gaming industry sector was, itself, dominated by the combined racing and sports betting sectors (e.g. 79% of total gambling expenditure) because of the relatively stagnant growth in the former but rapid growth in the latter sectors during the period.



The dominant position now occupied by the Territory in regard to the location (and therefore also in regard to the regulation) of Australia's online racing and sports betting wagering providers is probably the result of the Territory regulations offering more favourable gambling revenue raising arrangements (in the eyes of the providers) for these types of gambling activities. The Northern Territory Government has adopted revenue-raising regulations for online wagering activities (involving caps on license fee for providers), which have resulted in very much lower effective gambling taxation rates being applied to the operations of Territory located providers than must be paid by providers located in other Australian jurisdictions. This contrasts with the Territory Government's revenue-raising regulations for the providers of the gaming class of gambling activities (dominated by Electronic Gaming Machines) which are remarkably similar to those of other Australian jurisdictions.

The gambling industry in Australia provides a significant source of revenue to Australian state and territory governments through taxation and licensing and contributes both positively and negatively to state and territory economies in other ways. It is presumably for perceived reasons of overall economic benefit that the Northern Territory Government adopted the current revenue raising regulations for online gambling providers, which appear to have been so attractive to these providers to have produced their current distorted geographic (and thus regulatory) distribution. Given the very low effective taxation rate for the Territory racing and sports betting industries and the quite modest total revenues they generate for the government, the Territory's over-riding domination as the location of Australian online gambling providers may have been achieved at the expense of the major perceived economic benefit of gambling, namely a vehicle for significant revenue raising. Furthermore, the rapid growth in this section of the Territory's gambling industry will inevitably have associated growth in the negative economic effects that result from the social and financial harms that growth in gambling losses inevitably brings. The fact that these losses will largely be played out in other jurisdictions, should not eliminate the regulating government from any responsibility or duty of care.

It is unlikely that in the pre-Internet era there would have been any significant tax advantages for a gambling provider to relocate from one jurisdiction to another. However, for online gambling providers today there can be clear tax advantages and, currently, few deterrents to relocation. It is questionable whether the current state-base arrangements for regulating the gambling industry are adequate or appropriate for protecting the best interests of Australian society given the size of today's online gambling industry, let alone its likely future size.



1 Introduction

1.1 Background

Recent reports regarding changes to gambling regulations, increased numbers of gaming machines in the NT, and the most recent release of gambling financial statistics have created considerable media and public interest (Northern Territory Government 2014, Oaten 2014, Sorensen 2016, The Saturday Paper 2016, Thomas-Wilson & Hope 2016, Wallace 2016). Media accounts include reports of substantial increases in Northern Territory gambling largely associated with pokies (Steketee 2015), and reports of more betting companies moving to the Territory (Northern Territory Government 2016b, Thomas-Wilson & Hope 2016). These accounts usually present information on short term changes to particular aspects of gambling in the Northern Territory. These do not appear to be an up to date comprehensive analysis of long term changes to gambling in the Northern Territory. Such an analysis might explore questions such as:

- Is there sound statistical evidence of an increase in gambling in the Northern Territory?
 - If so, is the increase proportionally greater in the Territory than the rest of Australia?
 - If there is an increase, is this a recent phenomenon?
- Have increases occurred 'across the board', or in specific types of gambling? Are Territory changes mirrored throughout Australia?
- Are there similar increases in the total amount of gambling turnover, losses and government gambling-related revenue in the Territory? And are comparable changes apparent in other jurisdictions?
- Are there implications or consequences (particularly in relation to forgone revenues or gambling harms) for other jurisdictions arising from NT gambling trends?
- What government policy changes might be considered to address any undesirable consequences?

Not all of these questions can be answered by means of evidence-based statistical analysis which is the focus of this report.

This report explores some financial aspects of gambling in the Northern Territory. In particular, the report focuses on the financial dimensions of the gambling activities regulated by the Northern Territory Government rather than on the financial aspects of gambling activities undertaken by residents of the Northern Territory. For some types of gambling there is little difference between the gambling of Territory residents and the activities which are regulated by the Northern Territory Government. However, for other types of gambling, notably online gambling, gambling providers regulated by the Territory Government may provide services to gamblers from anywhere in Australia. Gambling undertaken with Territory regulated providers by visitors to the Territory will be within scope of this report.

The report intentionally excludes any consideration of unregulated gambling, and does not present any analyses of the extent or nature of financial and socially harmful effects that can be associated with gambling losses. The particular primary focus of the work is:

- To report up-to-date gambling financial statistics for Territory regulated gambling and to compare financial data for the Territory's gambling industry with comparable data for Australia as a whole.



- To determine the nature and magnitude of changes that have taken place in the amounts of money flowing through regulated gambling industries of the Northern Territory over the past 15 years; in addition, to make appropriate comparisons with Australia as a whole.

1.2 Gambling statistic sources

Available statistics on gambling in Australia are derived from one of two sources: either data collected from population prevalence surveys of gambling behaviours, or reports of administrative data supplied by gambling industry providers to State and Territory the gambling regulators.

Most statistics that describe gambling and its effects from the perspective of the gambler are derived from population prevalence surveys on the extent of peoples' involvement in gambling and on the direct or indirect impacts of gambling on them and those close to them (Davidson, Rodgers, Taylor-Rodgers, Suomi & Lucas 2016, Hare 2015, The Social Research Centre 2013, Young, Abu-Duhou, Barnes, Creed, Morris, Stevens & Tyler 2006). While some broad-scope prevalence surveys collect limited data on gambling activities by face-to-face interviews at the national level (e.g. as part of the ABS social survey program), most gambling-specific survey collections are funded, designed, and undertaken within a particular state or territory jurisdiction, which is the level of government at which gambling is regulated within Australia. These survey data collections are not usually conducted routinely at regular fixed reporting intervals and can change in design and content, if and when they are repeated (typically at anything from about 5 to 10 years' intervals). For example, the first Northern Territory population level gambling prevalence survey was carried out in 2005 (Young et al, 2006), and the second in late 2015, with results still not available for the most recent survey at the time of writing. Because of their irregular and infrequent collection, prevalence survey statistics are therefore not ideal for tracking the detailed patterns of change over the medium and shorter term and are not used in the analyses presented here. Importantly, they also rely on respondents' recall of amounts gambled and lost, which are notoriously unreliable.

Instead, the current work makes use of the second type of gambling statistics, derived from data originating from the regulated gambling industry providers themselves and provided to state and territory gambling regulators, who oversee gambling within Australia. As part of the regulatory process, gambling providers are required to routinely provide information to their regulators about their services, facilities and infrastructure and about the amounts of moneys passing through their 'hands'. The state and territory regulators publish reports annually providing summary information and some statistics, including some financial data, about gambling in their jurisdiction (e.g. Director-General of Licensing 2015, Independent Liquor and Gaming Authority 2015, Victorian Commission for Gambling and Liquor Regulation 2016).

These annual state and territory gambling reports are, individually, extremely useful source for closely tracking and monitoring changes in some aspects of gambling in each of the jurisdictions over time. However, because the gambling related legislation and regulatory requirements of state and territory authorities are not identical their individual reporting arrangements are also not necessarily fully comparable. Reports can differ markedly in some respects in content and design from one jurisdiction to another; and reports' contents can change over time. The individual jurisdictions' reports are therefore not the most convenient data source for deriving total Australian data or for making comparisons either between different jurisdictions or between a selected jurisdiction and Australian averages.

1.3 The Australian Gambling Statistic Dataset

In recognition of the importance of obtaining nationally comparable gambling information, the Australian racing and gaming ministers agreed, more than 3 decades ago, to the creation and ongoing maintenance of a uniform dataset on gambling financial data in 1983 (Queensland Government Statistician's Office - Queensland Treasury



2016d). Originally, the collection was administered through the Tasmanian Government on behalf of all Australian jurisdictions but it is now hosted by the Queensland Treasury. This dataset known as the Australian Gambling Statistics Dataset (AGSD). Based on data received from individual jurisdictions these reports present about 61 identically formatted tables for each jurisdiction (Queensland Government Statistician's Office - Queensland Treasury 2016c), along with quite comprehensive explanatory notes (Queensland Government Statistician's Office - Queensland Treasury 2016e). While considerable effort is made to achieve complete jurisdictional comparability this cannot always be fully achieved because of legislation, regulation and or data collection differences between the jurisdictions. The annual report's explanatory notes (Queensland Government Statistician's Office - Queensland Treasury 2016e) provide some summary information about differences between jurisdictions. The reports, while providing comprehensive statistical tabulations does not provide commentary or discussion on the patterns or trends that might be displayed in the tables.

1.4 AGSD: Gambling classes and sub-classes, and monetary variables

One key unifying feature of the AGSD has been the consistent use for the recording of data from all jurisdictions of a common classification system for different types of gambling, despite the existence of various slight differences between jurisdictions in the precise forms and definitions of gambling activities which local legislation/regulation allows in each state and territory. Furthermore, this classification system has not changed for the whole time the AGSD has existed. The AGSD gambling classification defines three broad classes of gambling: racing, gaming and sports betting. Each of these classifications is further divided into at least four sub-classes. Many of the entries in a typical AGSD table of 'gambling type' by 'jurisdiction' will have zero for some jurisdictions for a particular gambling type but a non-zero entry (possibly a very large number) for other jurisdictions. Such differences occur mainly because of jurisdictional legislation/regulation inconsistencies.

The majority of analyses of AGSD data presented here are based on the three AGSD gambling classes; namely 'Racing', 'Gaming', and 'Sports betting' (Queensland Government Statistician's Office - Queensland Treasury 2016b). In some later additional analyses, the 'Gaming' classification has been sub-divided into three sub-classes, namely 'Casinos', 'Gaming Machines', and 'Other Gaming'. The 'Casino' classification includes almost all gaming activities in casinos including all table gaming and all casino-based electronic gaming machine gambling. The 'Gaming Machines', classification called here Electronic Gaming Machines (EGMs-excluding casinos) classification includes electronic gaming machine gambling in hotels and clubs only (and specifically excludes casino-based EGMs) (Queensland Government Statistician's Office - Queensland Treasury 2016c). The 'Other Gaming' classification represents the combined total for the remaining seven AGSD sub-classes (i.e. 'Instant Lottery', 'Interactive Gaming', 'Keno', 'Lotteries', 'Lotto', 'Minor Gaming', and 'Pools' (Queensland Government Statistician's Office - Queensland Treasury 2016c).

The many AGSD tabulations present tabulations using three variables representing annual monetary amounts relating to gambling activities (also referred to here as key financial indicators):

- Turnover: The total annual dollar amount wagered by all gamblers. It does not include additional changes at the point of sale, e.g. selling agent commissions.
- Expenditure: The total annual dollar amount lost by gamblers, or the difference between the turnover and the amount won back in the same time period by gamblers. This is also referred to as the annual 'player losses'. Conversely, it is sometimes referred to as the gross profit to the gambling providers in the sectors being considered.
- Government revenue: The revenue received by state governments from gambling activities that are subject to state and territory gambling licensing fees and gambling taxes.



After Marina Strocchi

A typical AGSD jurisdictional tabulation will involve one of the above three variables, or a simple function of it, tabulated by gambling classes and sub-classes. Representations of the key variable include the unadjusted form, or it may provide an inflation adjusted form of the key variable (all data being adjusted using CPI data to the most recent values and referred to a 'real' values). Alternatively, either the unadjusted or real key variable may be expressed as a total for the jurisdiction, or per capita (per adult jurisdictional population 18 years and over), or as a percentage of household income (based on the ABS definition and using ABS household income data, (Queensland Government Statistician's Office - Queensland Treasury 2016e). Some summary tables present aggregate data for all jurisdictions.

There are clearly many combinations possible for the three key monetary variables cross-classified by numerous other variables, which could be explored. Only a very small tightly defined subset will be analysed here, within the following sections. The reader is referred to the Australian Gambling Statistics website (Queensland Government Statistician's Office - Queensland Treasury 2016a) for more detailed breakdowns.

2 Analyses of the AGSD data for the Northern Territory

The primary purpose of this analysis is to describe changes in the expenditure and revenue of the regulated gambling industry of the Northern Territory over the past 15 years. This period is selected for time trend analysis partly because the introduction of the Goods and Services Tax (GST) in 2000/01 means that financial data collected before that time are not fully comparable to data for 2000/01 onward. However, this time period is convenient because it also covers the main period of the growth in online gambling, a major factor in the growth of the NT gambling industry during recent years.

The key variables describing money flows in the gambling industry and available in the AGSD is the turnover, expenditure and government revenue. Two additional variables are derived from these three key monetary flow variables. The two derived variables are:

- Player loss rate (expressed as %) = (expenditure/turnover) x 100
- Government tax rate (expressed as %) = (government revenue/expenditure) x 100.

(**Note:** These two derived variables are often referred to as *rates* in the gambling literature and this convention is continued here even though, strictly speaking, they are *ratios* of annual dollar amounts, and not *rates* as usually defined (i.e. an amount per unit of time).

The player loss rate indicates the average proportion of the amount gambled that is lost by gamblers to the gambling provider, or that is not returned to gamblers as winnings in the long run. The larger the player loss rate the smaller the return to the gambler and, in theory, the less favourable should the gambling activity should be viewed purely from the perspective of minimizing expected losses for a given investment. Alternatively, (100 – player loss rate) is a measure of the average rate of return on gamblers' wagers or bets (turnover). Thus, the higher the player loss rate the poorer (more negative) will be the financial return rate for gamblers and, viewed solely as a financial transaction, the less attractive as an investment/purchasing proposition.

The government tax rate measures the proportion of expenditure or player losses that are acquired by the regulating state or territory government as gambling related taxes. A higher rate may mean a higher income to the state/territory government and a lower gross profit to the providers and, therefore, may be viewed as desirable from government's perspective and, conversely, may be viewed as less desirable from the gambling provider's perspective. All other things being equal, jurisdictions offering the lowest government tax rates will, in theory and often in practice, be the most attractive locations for gambling providers.



Besides analysing the monetary flow variables themselves, and the two derived rates variables set out above, analyses are also undertaken of the relative magnitudes of each of these variables for the Territory in comparison to those for the whole of Australia. That is, the Territory monetary flows (and derived variables) are expressed as percentages of their corresponding figures for the whole of Australia.

As a preliminary set of analyses, the latest (2014/15) Northern Territory and Australian annual data are presented and contrasted (Section 3.1). Following these initial current 'point-in-time' analyses, time series analyses of changes over recent times (the past 15 years) are also undertaken (Section 3.2). To explore real changes in monetary flows over time, the effects of inflation must be removed. Thus the form of the key variables used in most of the analyses presented here is real turnover, real expenditure and real government revenue, in which the key variables are corrected for inflation by adjusting them all to 2014/15 dollar terms, (Queensland Government Statistician's Office - Queensland Treasury 2016d).

Time series results also explore recent changes for the Northern Territory and the whole of Australia for the selected derived variables. Similar analyses are undertaken for Australia as a whole, so that the changes in the Northern Territory can be seen in the context of changes across the whole of Australia. In order to clearly focus on the changes in the Northern Territory relative to those for the whole of Australia, some additional analyses were undertaken in which the changes in the ratio of the Northern Territory to Australian values of selected variables over the past 15 years were examined.

Further analyses explore the growth over the past 15 years in the three inflation-adjusted variables for the Northern Territory's gambling industry for different classes and sub-classes of gambling (Section 3.2.2). Initially this is done for the three broad AGSD gambling class variables (racing, gaming and sports betting), and subsequently for the three sub-classes of gaming defined above (casinos, EGMs and other gaming) (Section 3.2.3).

The appendix presents analyses and results in which the racing and sports betting turnover, expenditure or government revenue are combined into a single set of composite 'racing and sports betting' variables. This is necessary to assist accurate interpretation of government revenue analyses for the Northern Territory because government revenues from racing and sports betting in the Northern Territory are not separately identified in the AGSD. The AGSD explanatory notes (Queensland Government Statistician's Office - Queensland Treasury 2016e), reports that for recent years (probably since about 2007) Territory government gambling revenue from sports betting has been recorded as zero and all government revenue derived as a consequence of either racing or sports betting activities has been assigned to the racing class in the AGSD statistics. It appears (but the AGSD explanatory notes do not explicitly say) that this is because these government revenues are generally collected in the form of license fees from providers who are then entitled to undertake either racing or sports betting wagers or both. That is, it is not obvious how such fees should be apportioned between racing and sports betting.

At the outset, it must be stressed that these analyses are of flows of money through the Territory gambling industry. This does not mean the statistics relate to the Northern Territory population. Indeed, one of the main considerations that may emerge from these analyses is the extent to which different types of gambling might relate to the Territory's (or Australia's) population.

3 Results

3.1 Financial Indicators for the NT gambling industry, in 2014/15.

Aggregate results for all regulated gambling are first presented, followed by indicators for the three gambling classes (racing, gaming and sports betting) and the three sub-classes of gaming (casinos, EGMs in clubs and hotels (simply referred to as EGMs below), and other gaming activities) are then presented.



3.1.1 All regulated gambling, 2014/15

The total gambling turnover reported by regulated gambling providers in the Northern Territory for the financial year 2014/15 was almost \$12 billion. Total gambling expenditure (or gross profit or player loss) reported by these providers for the same period was almost \$1.2 billion; whereas the reported revenue (special gambling taxes and license fees) collected by the Northern Territory Government in the same time was \$68 million (Table 1).

Table 1: Total gambling turnover, expenditure and government revenue for NT and Australia, 2014/15

Total Gambling	NT (\$ millions)	Australia (\$ millions)	NT as % of Australia
Turnover	11,840.87	191,883.72	6.17
Expenditure	1,181.40	22,733.95	5.20
Government revenue	68.44	5,760.22	1.19

Source: Australian Gambling Statistics (2016), 32nd edition, Queensland Government Statistician's Office, Queensland Treasury.

Table 1 also provides gambling turnover, expenditure and government revenues for 2014/15 for the whole of Australia, as well as these monetary flows for the Territory expressed as percentages of Australia's. These reveal that the Territory's gambling industry is more than 6% of Australia's in terms of turnover, and more than 5% in expenditure terms, but comprises just 1.2% of national gambling revenues. Given that the Territory's adult population was slightly less than 1% of Australia's in 2014/15 (0.181 million compared to 18.306 million), the Territory's gambling industry accounts for 5 to 6 times more turnover and expenditure than proportionally expected. Territory government gambling revenues collections, on the other hand, are only slightly higher than proportional population expectations would indicate. The turnover, expenditure and government revenue figures can be expressed in other useful ways including the two derived ratios - player loss rate and government tax rate (Table 2).

Table 2: Player loss rate and government tax rate for all NT and Australia gambling, 2014/15

Total Gambling	NT (%)	Australia (%)	NT as % of Australia
Player loss rate	9.98	11.85	84.21
Government tax rate	5.79	25.34	22.87

Source: Australian Gambling Statistics (2016), 32nd edition, Queensland Government Statistician's Office, Queensland Treasury.

The Territory's total player loss rate (10.0%) is slightly smaller than the Australia-wide player loss rate of nearly 12%. Thus, viewed as a whole and taken at face value, the Territory-wide gambling industry would appear to offer better crude player return rates than the average for Australia. However, the difference is minor and may be insufficient to influence many gamblers' behaviours. Further, this is based on across the board average difference, which takes no account of differences between the spectrum of gambling industries in the Territory and Australia.

By contrast, the government tax rate, which is less than 6% for the Territory, is very different to the Australian average of more than 25%.



3.1.2 Racing, gaming, and sports betting gambling classes, 2014/15

This section breaks down the statistics for all types of gambling into the three main classes of the AGSD: racing, gaming and sports betting (Queensland Government Statistician's Office - Queensland Treasury 2016d). Because of some uncertainty about the allocation of government revenues for the Territory between the racing and sports betting gambling classes, additional tables for these two gambling classes combined are presented in the Appendix I.

Tables 3, 4 and 5 provide 2014/15 turnover, expenditure and government revenue statistics for the Territory and Australia for each of the three gambling classes.

Table 3: Racing: turnover, expenditure and government revenue for NT and Australia, 2014/15

Total Racing	NT (\$ millions)	Australia (\$ millions)	NT as % of Australia
Turnover	6,379.77	17,595.51	36.26
Expenditure	651.90	2,814.73	23.16
Government revenue	10.00 ^(a)	215.94	4.63

Source: Australian Gambling Statistics (2016), 32nd edition, Queensland Government Statistician's Office, Queensland Treasury.

(a) All government revenues for either racing or sports betting in NT are allocated to racing in the AGSD.

Table 4: Sports betting: turnover, expenditure and government revenue for NT & Australia, 2014/15

Total Sports betting	NT (\$ millions)	Australia (\$ millions)	NT as % of Australia
Turnover	3,354.53	7,197.10	46.61
Expenditure	285.70	814.59	35.07
Government revenue	0.00 ^(a)	36.45	0.00

Source: Australian Gambling Statistics (2016), 32nd edition, Queensland Government Statistician's Office, Queensland Treasury.

(a) All government revenues for either racing or sports betting in NT are allocated to racing in the AGSD.

Table 5: Gaming: turnover, expenditure and government revenue for NT and Australia, 2014/15

Total Gaming	NT (\$ millions)	Australia (\$ millions)	NT as % of Australia
Turnover	2,106.57	167,091.11	1.26
Expenditure	243.80	19,104.63	1.28
Government revenue	58.44	5,507.83	1.06

Source: Australian Gambling Statistics (2016), 32nd edition, Queensland Government Statistician's Office, Queensland Treasury.

Tables 3, 4 and 5 demonstrate that in 2014/15 there were major differences between Australia as a whole and the Territory in the relative importance of the three gambling classes. For turnover and expenditure Australia's gambling industry is dominated by gaming (about 85%), with racing (about 10%) and sports betting (about 5%) being much smaller components. By contrast, in terms of turnover and expenditure, the Territory's gambling industry is dominated by a combination of racing (about 55%), and sports betting (about 25%), with gaming being responsible for only about 20% or less of the annual flow of money through the industry.



Bearing in mind that the Territory's adult population is almost exactly 1% of the total adult Australian population, it can be seen from Table 5 that the Territory's total gaming turnover and expenditure are a little more than the expected in proportion to the Territory and Australian adult populations. While the Territory's sports betting and racing gambling industries account for between one quarter and almost one half of the total Australian turnover and expenditure for these industries. Thus, the overrepresentation of the Territory's gambling industry in terms of total gambling turnover and expenditure (see Table 1) is almost completely accounted for by racing and sports betting which, although relatively minor players across Australia now dominate the money flows of the Territory's gambling industry.

Government revenue collected from the gambling industry tells a slightly different story. Firstly, government revenues collected from gaming activities for 2014/15 in the Territory were only slightly greater than 1% of the Australian government revenue from gaming activities. That is, ignoring the magnitude of the expenditure from which they were drawn, they were quite unremarkable in a relative sense compared with the rest of Australia.

(Because of the way Territory government revenues are recorded in the AGSD, it would appear that it is not possible to distinguish within this dataset between those revenues originating from racing and those from sports betting, at least in recent years). Nevertheless, it is clear for the combined amounts (Table 16 of Appendix I) that Territory government revenue from racing and sports betting is relatively small (just \$10 million in 2014/15), representing less than 4% of all government revenues from these gambling classes across Australia. This is despite the fact that 25% of Australia's racing and sports betting government revenue accrues to the Territory.).

The very low effective government taxation rates levied on the Territory's wagering industry (i.e. racing and sports betting) is demonstrated in Tables 6, 7, and 8, and Table 17 of Appendix I in which player loss rate and government tax rate are displayed. From Table 17 of Appendix I it can be seen that the combined government tax rate for Territory racing and sports betting is only just over 1%. This compares with a combined figure of nearly 7% for the whole of Australia. Clearly, even though racing (Table 6) and particularly sports betting (Table 7) have lower recorded rates of government tax rate than gaming (from table 8 the latter are about 25% for both NT and Australia), the Northern Territory's effective rate of taxation on wagering, of approximately 1%, is exceptionally low by any standards.

Table 6: Racing: player loss rate and government tax rate for NT and Australia, 2014/15

Total Racing	NT (%)	Australia (%)	NT as % of Australia
Player loss rate	10.22	16.00	63.88
Government tax rate	1.53	7.67	20.00

Source: Australian Gambling Statistics (2016), 32nd edition, Queensland Government Statistician's Office, Queensland Treasury.

Note: All government revenues for either racing or sports betting in NT are allocated to racing in the AGSD.

Table 7: Sports betting: player loss rate and government tax rate for NT and Australia, 2014/15

Total Sports betting	NT (%)	Australia (%)	NT as % of Australia
Player loss rate	8.52	11.32	75.25
Government tax rate	0.00	4.47	0.00

Source: Australian Gambling Statistics (2016), 32nd edition, Queensland Government Statistician's Office, Queensland Treasury.

Note: All government revenues for either racing or sports betting in NT are allocated to racing in the AGSD.



Table 8: Gaming: player loss rate and government tax rate for NT and Australia, 2014/15

Total Gaming	NT (%)	Australia (%)	NT as % of Australia
Player loss rate	11.57	11.43	101.22
Government tax rate	23.97	28.83	83.15

Source: Australian Gambling Statistics (2016), 32nd edition, Queensland Government Statistician's Office, Queensland Treasury.

3.1.3 Three gaming sub-classes: Casinos, EGM (excluding casinos) and Other Gaming, 2014/15

Despite the relative proportional similarity between the Territory and the whole of Australia with respect to gaming financial flow statistics there are some notable differences between the three gaming sub-classes; see tables 9, 10, and 11 for turnover, expenditure and government revenue statistics and tables 12, 13 and 14 for player loss rate and government tax rate.

Table 9: Casinos: turnover, expenditure and government revenue for NT and Australia, 2014/15

Total Casinos	NT (\$ millions)	Australia (\$ millions)	NT as % of Australia
Turnover	1,081.23	25,158.54	4.30
Expenditure	105.35	5,169.43	2.04
Government revenue	11.06	687.58	1.61

Source: Australian Gambling Statistics (2016), 32nd edition, Queensland Government Statistician's Office, Queensland Treasury.

Table 10: EGMs (not casinos): turnover, expenditure and government revenue for NT and Australia, 2014/15

Total EGMs	NT (\$ millions)	Australia (\$ millions)	NT as % of Australia
Turnover	870.41	135,696.05	0.64
Expenditure	82.63	11,588.91	0.71
Government revenue	23.76	3,437.08	0.69

Source: Australian Gambling Statistics (2016), 32nd edition, Queensland Government Statistician's Office, Queensland Treasury.

Table 11: Other gaming: turnover, expenditure and government revenue for NT and Australia, 2014/15

Total Other gaming	NT (\$ millions)	Australia (\$ millions)	NT as % of Australia (%)
Turnover	154.93	6,236.53	2.48
Expenditure	55.82	2,346.29	2.38
Government revenue	23.63	1,383.17	1.71

Source: Australian Gambling Statistics (2016), 32nd edition, Queensland Government Statistician's Office, Queensland Treasury.

From tables 9, 10 and 11 it is clear that Territory turnover, expenditure and government revenue expressed as a percentage of the whole of Australia figures are consistently higher than 1% (the Territory's adult population as a proportion of Australia's) for the casino sub-class and for the other gaming sub-class. By contrast, the equivalent figures for EGMs (in clubs and hotels) are all less than 1%. This indicates that, relative to other states and



territories, there is less EGM activity in clubs and hotels in the Territory (by about a factor of one third). However, the two Territory casinos between them generate somewhat greater casino activity than expected based on comparisons with Australian casinos relative to adult population sizes. However, since the majority of Territory casino gambling turnover and expenditure derives from their EGMs (data not shown), the differences referred to above may have more to do with the differences between the Territory and other jurisdiction's casinos (with respect to their gaming activity mix), rather than any more fundamental contrast between the Territory and the rest of Australia.

Table 12: Casinos: player loss rate and government tax rate for NT and Australia, 2014/15

Total Casinos	NT (%)	Australia (%)	NT as % of Australia
Player loss rate	9.74	20.55	47.42
Government tax rate	10.49	13.30	78.90

Source: Australian Gambling Statistics (2016), 32nd edition, Queensland Government Statistician's Office, Queensland Treasury.

Table 13: EGMs (excluding casinos): player loss rate and government tax rate for NT and Australia, 2014/15

Total EGMs	NT (%)	Australia (%)	NT as % of Australia
Player loss rate	9.49	8.54	111.16
Government tax rate	28.75	29.66	96.95

Source: Australian Gambling Statistics (2016), 32nd edition, Queensland Government Statistician's Office, Queensland Treasury.

Table 14: Other gaming: player loss rate and government tax rate for NT and Australia, 2014/15

Total Other gaming	NT (%)	Australia (%)	NT as % of Australia
Player loss rate	36.03	37.62	95.76
Government tax rate	42.33	58.95	71.80

Source: Australian Gambling Statistics (2016), 32nd edition, Queensland Government Statistician's Office, Queensland Treasury.

Table 13 demonstrates that there is little difference between the Territory and average Australian club and hotel EGM player loss rates and government tax rates; which, however, are very much higher than for casinos in the Territory or the Australian average for casinos. However, the Territory casinos have lower player return rates than the average for Australian casinos (Northern Territory Government 2016c), and slightly lower government tax rates (Table 12). The former differences may be, once again, due to the more prominent role EGMs play in Territory casino gambling (see comment above but data not analysed in this report). This combined with the fact that player loss rates are generally lower for EGMs than casino gaming tables (Note: this is indicated from the NT Director-General of Licencing Annual Report where casino EGMs and table gaming data are presented separately).

By comparison with Casino and EGM activity, other gaming activities collectively play a relatively minor financial part in total Australian or Territory gaming turnover (respectively just 3.7% and 7.5%), see tables 11 and 5. However, both the player loss rates and the government tax rates are remarkably (and inexplicably) high for other gaming activities by comparison with all other forms gambling, see tables 14 and 8. This results in relatively high expenditure (respectively 12% and 23% of total gaming revenue for Australia and the Territory) and even higher government revenues (respectively 40% and 25% of all NT and Australian gaming government revenue) being drawn from these other gaming sources. Why this should be the case is quite unclear.



3.1.4 Summary of main current similarities and differences between the Territory and Australia with respect to gambling money flows

Similarities

- On a per capita basis the total government revenue from all Territory gambling industry sectors is slightly higher than comparable national averages.
- In broad average terms, rates of per capita gaming activities as measured by turnover and expenditure within the Territory are not dissimilar to the national average.
- Like the average for Australia, the Territory has a much higher government tax rate and higher player loss rate for 'other gaming' activities than all for other forms of gambling.
- The Territory has quite similar player loss rates and government tax rates for hotel and club EGMs to the Australian average rates.

Differences

- On a per capita basis, gambling turnover and expenditure through all Territory gambling industry sectors is 5 to 6 times comparable national averages
- Gaming (and within gaming EGMs in clubs and hotels) is by far the dominant gambling activity across the whole Australia gambling industry, but racing and sports betting activities are by far the dominant gambling sectors of the Territory's gambling industry.
- In terms of turnover and expenditure on a population basis, the Territory's racing and sports betting industries are orders of magnitude larger than Australian averages.
- The Territory industry player return rates are higher than average Australian rates for racing and sports betting activities
- Government tax rates are generally lower in the Territory than the Australian average, and are very much lower for the racing and sports betting classes of gambling.

3.2 Trends in gambling industry financial indicators, 2000/01 to 2014/15

In the following section we analyse the changes over the past 15 years, which have largely led to the current similarities and differences. As with the above analyses, three key monetary flow indicators for the gambling industry (turnover, expenditure and government revenues) are analysed along with the two derived rate variables (player loss rates and government tax rates). Analyses of monetary values are undertaken in real 2014/15 dollar terms.

3.2.1 All regulated gambling from 2000/01 to 2014/15.

Table 15 shows annual total real (2014/15 dollars) gambling turnover, expenditure and government revenue for the NT's and Australia's total regulated gambling industries. Over the whole 15-year period there is relatively little change for Australia in any of the three financial indicators, with annual turnover, expenditure and government revenue increasing by about 10 percent over the whole 15-year period. However, excepting the most recent year (2014/15), all three Australian financial indicators showed small localised peak values in 2006/07. Also, Australian turnover and expenditure showed relatively sharp rises in 2014/15 to reach new heights for the fifteen-year



period. It should be noted that these figures are industry totals, which do not account for population increase over the fifteen years. Had the growth in the Australian adult population been accounted for, a clear pattern of modest decline in per capita money flows for all three indicators would have been demonstrated for Australia as a whole. These per capita declines in Australian gambling indicators have been noted for a number of years (Davidson et al. 2016, Productivity Commission 2010a, The Social Research Centre 2013).

Table 15: Real total gambling turnover, expenditure, and government revenue for NT and Australia, 2000/01 to 2014/15

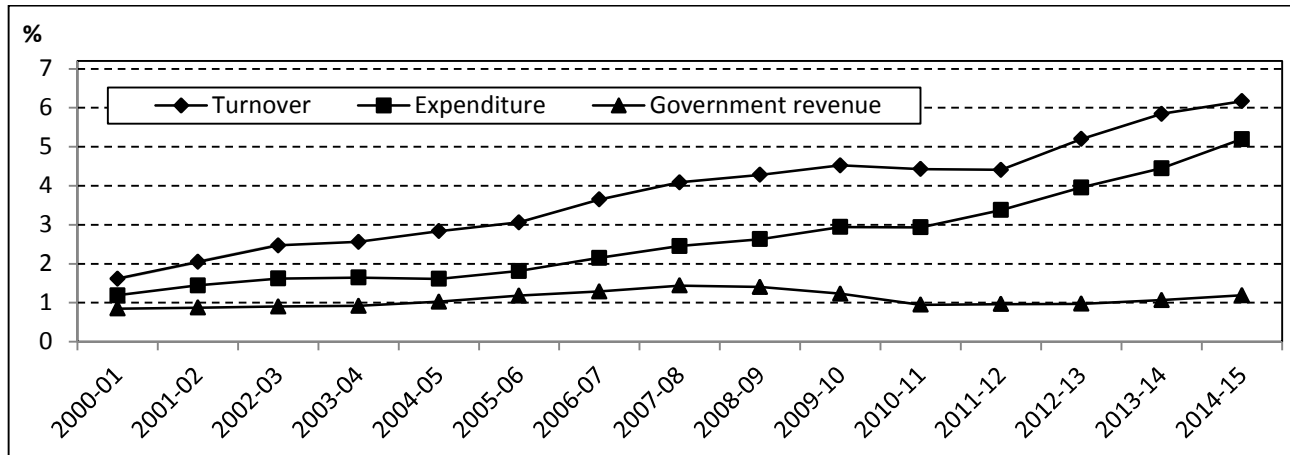
	Total Gambling NT (\$ millions)			Total Gambling Australia (\$ millions)		
	Turnover	Expenditure	Government revenue	Turnover	Expenditure	Government revenue
2000/01	2,765.26	247.78	44.61	170,903.83	20,821.83	5,268.79
2001/02	3,589.46	305.92	46.83	175,265.11	21,165.82	5,365.88
2002/03	4,325.44	342.85	48.86	175,149.14	21,144.15	5,416.32
2003/04	4,598.83	357.34	51.26	179,473.47	21,716.65	5,573.78
2004/05	5,285.15	355.64	59.51	186,275.80	22,083.61	5,811.40
2005/06	5,747.99	404.06	69.81	187,872.70	22,292.69	5,917.76
2006/07	6,870.41	480.84	77.79	188,357.91	22,383.56	6,039.83
2007/08	7,422.90	528.02	84.81	181,618.66	21,526.57	5,887.87
2008/09	7,957.42	577.17	84.37	185,900.69	21,958.78	6,011.78
2009/10	8,176.41	611.81	68.26	180,757.50	20,792.30	5,552.57
2010/11	8,161.06	623.37	54.64	184,320.85	21,230.36	5,771.01
2011/12	8,221.22	739.96	56.75	186,439.07	21,903.24	5,879.03
2012/13	9,535.62	856.97	55.56	183,371.49	21,665.63	5,718.27
2013/14	10,744.04	955.75	59.04	183,771.09	21,475.66	5,537.90
2014/15	11,840.87	1,181.40	68.44	191,883.72	22,733.95	5,760.22

Source: Australian Gambling Statistics (2016), 32nd edition, Queensland Government Statistician's Office, Queensland Treasury.

By contrast, growth in the NT's gambling industry indicators for turnover and expenditure over the 15-year period are quite striking (see Table 15 and Figure 1). Over the whole period there were increases of more than 300% for turnover, nearer 400% for expenditure, but a more modest increase of 50% in government revenue. Figure 1 displays the NT's industry growth relative to Australia's over the 15-year period. In this graph, the NT's industry's annual indicators are expressed as a percentage of their Australian counterparts for that year. It is clear that the NT industry's turnover and expenditure, as percentages of their Australian equivalents, have been growing robustly and relatively steadily by comparison throughout the 15-year period. Starting from base levels in 2000/01 the Territory monetary flows were little more than 1 percent of their Australian counterparts (i.e. only slightly larger than the proportion of the Australian adult population that lives in the Territory), they have grown 4 times over 15 years to their current levels. There is no suggestion in Figure 1 that growth in the NT is plateauing or declining. In fact, it is noteworthy that 2013/14-2014/15 saw the single largest annual increase in Territory expenditure relative to Australian expenditure for the whole period.



Figure 1: Real total gambling turnover, expenditure and government revenue for NT as % of Australia, 2000/01 to 2014/15



Territory government revenue from gambling have always been about or slightly more than 1.0% of Australia's government revenue; indicating that, despite much higher and rapidly growing relative turnover and expenditure, the Territory's government revenue take has not kept pace. Indeed, viewed in isolation from the fast growing turnover and expenditure, the Territory's government revenue take is unremarkable by comparison with Australian levels for the past 15 years. Nevertheless, the first half of the period (up to 2007/08) saw NT's government revenue relative to Australia's increase modestly before suffering a substantial reverse (declining by a third) between 2008/09 and 2011/12. It seems unlikely that this reverse was attributable to the introduction of smoking bans in casinos, clubs and hotels (in about 2007/08) as total expenditure only displays a slight flattening at this time. In the most recent two years, NT's government gambling revenue has recovered somewhat, possibly on the back of strong relative expenditure growth (see above).

Figure 2: Total gambling: player loss rate and government tax rate for NT and Australia, 2000/01 to 2014/15

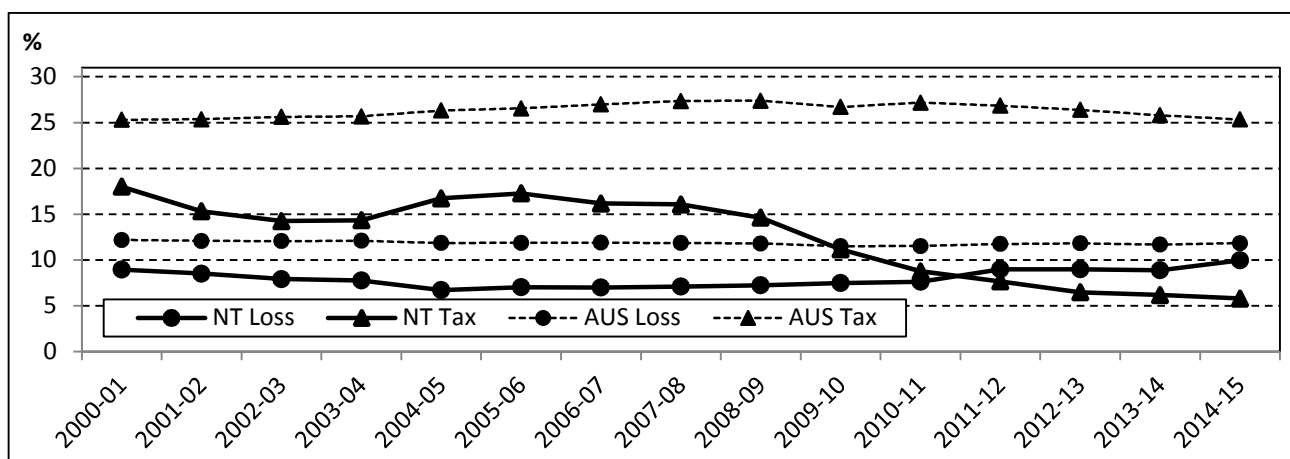
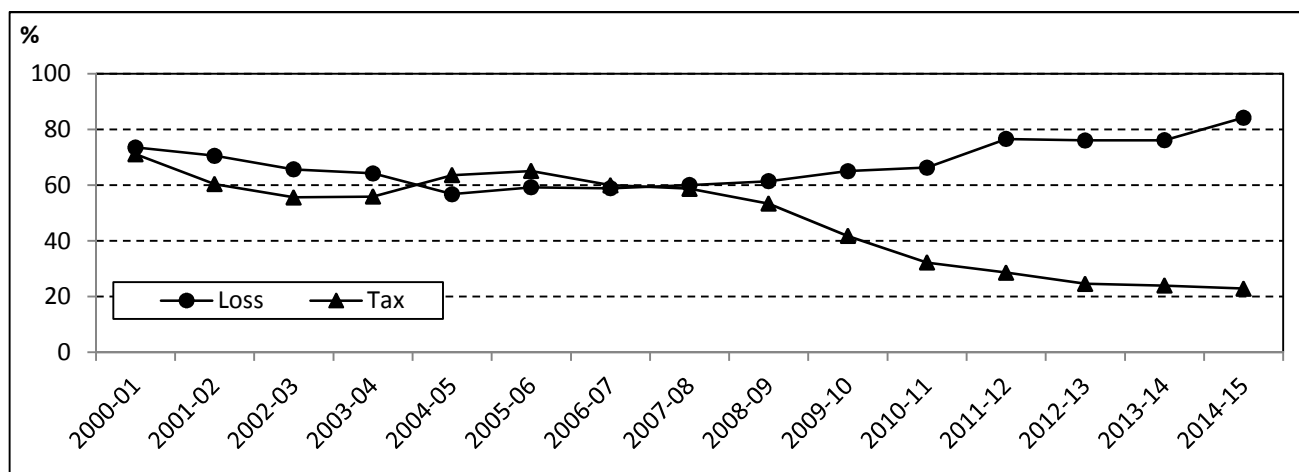


Figure 2 shows the player loss rate and government tax rate for NT and Australia. The former are relatively steady for both the NT (varying annually between 7 and 10%, but showing a relatively sharp rise in the most recent year 2013/14 to 2014/15) and particularly for Australia varying annually between 11 and 12%), and show no clear trend upwards or downwards. Government tax rates for Australia are also roughly consistent across time (between 25 and 27% for all years). The Northern Territory's government tax rate, by contrast, displays a strong and consistent decline from 18% in 2000/01 to less than 6% by 2014/15, with no suggestion that the decline has ceased.



The Territory's gambling industry has consistently had lower average player loss rates and government tax rates than the wider Australian gambling industry throughout the 15-year period (Figure 3). There is no consistent trend in the relative player loss rates for NT, although recent years particularly 2014/15, has seen quite noticeable and inexplicable jumps in the relative player loss rates. By contrast, the Territory's government tax rate declined from more than 70% of the average Australian rate in 2000/01 to less than 23% by 2014/15.

Figure 3: Total gambling: player loss rate and government tax rate for NT expressed as % of equivalent Australian rate, 2000/01 to 2014/15



3.2.2 Racing, gaming, and sports betting gambling classes, 2000/01 to 2014/15

The real value (2014/15 dollars) of Territory gambling industry turnover, expenditure and government revenue are displayed in figures 4, 5 and 6 respectively.

Figures 4 and 5 demonstrate that the current dominant position of racing and sports betting gambling classes in the turnover and expenditure of the Territory's gambling industry (Table 3, 4 and 5?) is a relatively new phenomenon. In 2000/01, the combined total of racing and sports betting for turnover and expenditure were respectively about one half and one quarter of the corresponding figures for the Territory's gaming providers. Both the former gambling classes have shown rapid growth throughout the period, while the latter has remained static (with the highest annual values in the middle of the period) at about \$2 billion turnover annually and \$200 million in annual expenditure. By 2006/07 racing had surpassed gaming in turnover, and by 2009/10 in expenditure. Last year saw the Territory sports betting industry total expenditure surpass the Territory gaming expenditure for the first time. Growth rates for both turnover and expenditure for the Territory racing and sports betting industries are higher in the most recent years than they have ever been. The last year, 2013/14 to 2014/15, saw the highest ever increase in the growth of expenditure for both Territory racing and sports betting, increasing by more than \$60million from \$510 to \$570million.



Figure 4: Real gambling turnover by gambling class for NT, 2000/01 to 2014/15

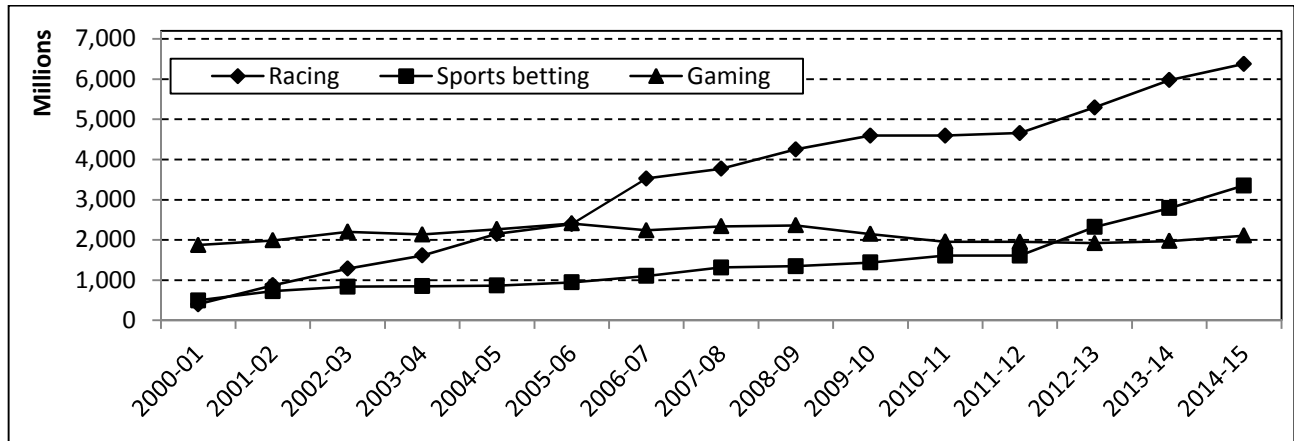
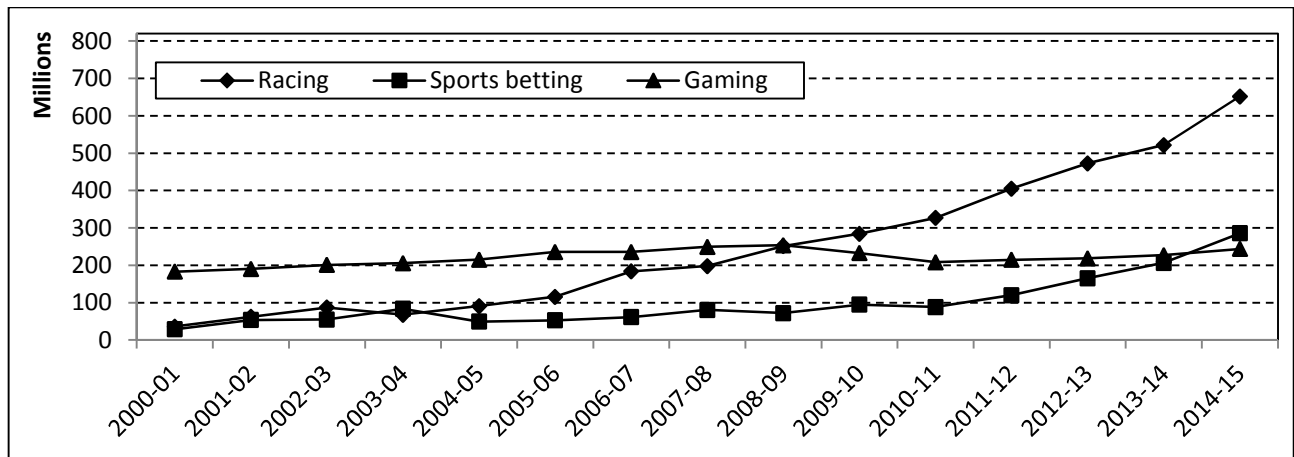


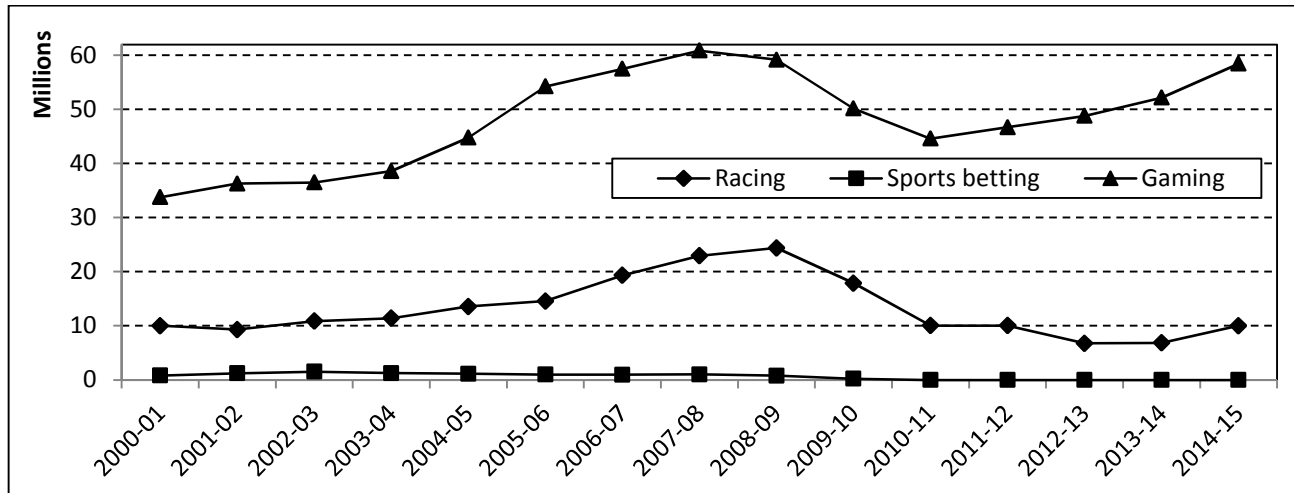
Figure 5: Real gambling expenditure by gambling class for NT, 2000/01 to 2014/15



The trends in government revenues over the 15-year period show a quite different pattern to turnover and expenditure (Figure 6). While Territory government revenue from gaming is higher by about 70% at the end of the period than at the beginning of the period, the trajectory has been non-linear. To 2007/08 there was modest to moderate growth, which then declined rapidly by 35% over 2-3 years before mounting a slow gradual recovery, but which significantly, speeded up between 2013/14 to 2014/15. It is likely that some of the gaming government revenue (and probably also turnover and expenditure) decline between following 2007/08 is associated with the introduction of smoking bans into Territory gambling venues at this time.



Figure 6: Real gambling government revenue by gambling class for NT, 2000/01 to 2014/15



Territory government revenue from sports betting is recorded in the AGSD as being very low up to 2008/09 and as zero thereafter. Explanatory notes indicate that the post 2010 ‘zeros’ are an artefact of the nature of the Territory government’s licensing approach to determining revenue due from online wagering, and that all such revenue is arbitrarily recorded as derived from racing. For this reason, it may be more correct to consider only Territory government revenue from the combined racing and sports betting industries. Such tabulations and graphs are presented in the appendix. However, since even the total Territory government revenues from the racing and sports betting industries are relatively small, it is consequently, not misleading to continue to consider the racing and sports betting gambling classes separately. To all intents and purposes, no conclusions are distorted by treating sports betting as being untaxed in the Territory since 2010.

Territory government revenues from racing gambling were the same at the end of the period and the beginning, but rose to more than twice these levels between 2007/08 to 2008/09 before dropping back by 2010/11. It seems unlikely that racing gambling, particularly through the Territory’s predominantly online industry, would be affected as much by smoking bans as the Territory’s gaming industry. It is more likely that they may relate to changes in government revenue raising regulations from online wagering which were significantly modified about this date. Prior to this date the tax rate was set at 10% of expenditure but amendments to the Racing and Betting Act (date?), while maintaining the percentage tax rate, introduced an annual cap (initially \$250,000) on the license fee paid by each Territory located gambling provider. This cap has increased annually linked to inflation and was approximately doubled to more than \$500,000 annually in 2015/16.

Figures 7, 8 and 9 present graphs which provide direct displays of the relative size of NT gambling financial indicators relative to comparable Australian totals.



After Marina Strocchi

Figure 7: Racing: turnover, expenditure and government revenue for NT as % of Australia, 2000/01 to 2014/15

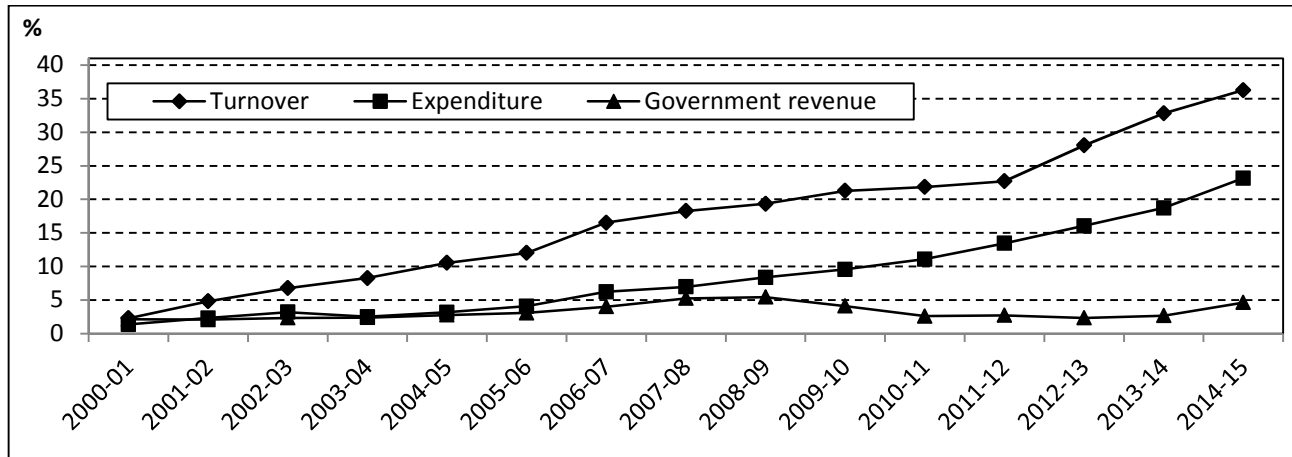


Figure 8: Sports betting: turnover, expenditure and government revenue for NT as % of Australia, 2000/01 to 2014/15

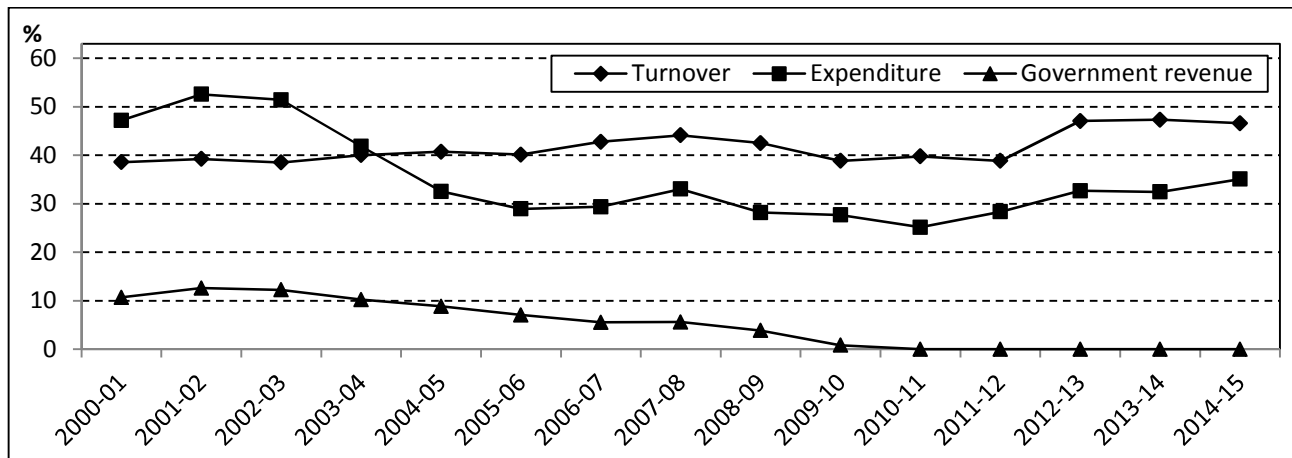
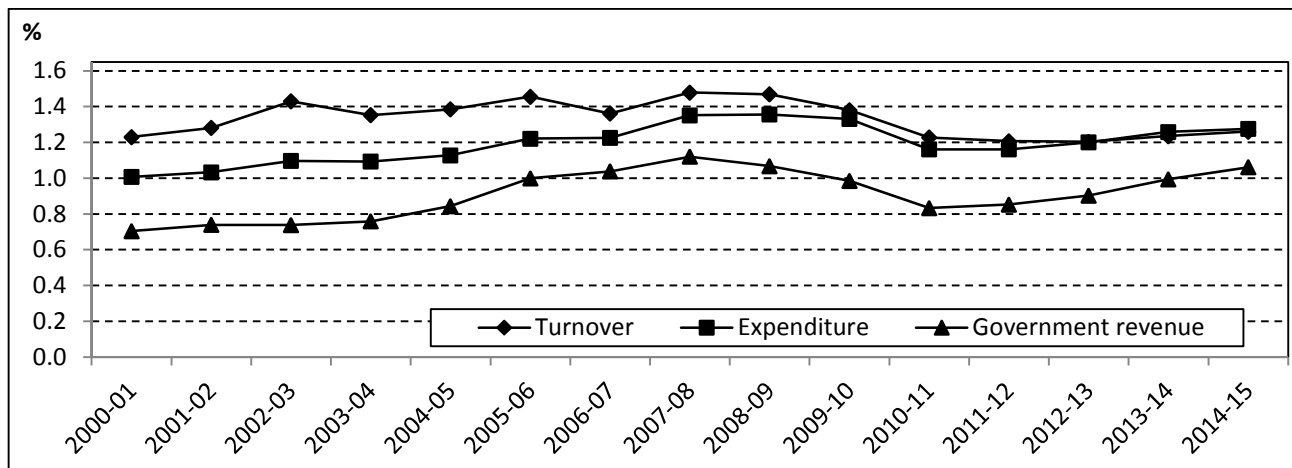


Figure 9: Gaming: turnover, expenditure and government revenue for NT as % of Australia, 2000/01 to 2014/15





First, the indices for gaming are considered in Figure 9. Territory gaming turnover throughout the 15-year period fluctuated between 1.2 and 1.5% of the corresponding Australian gaming turnover figures, with no clear pattern of long term upward or downward trend. Territory gaming expenditure relative to comparable Australian figures shows similar annual variations as does the turnover index but also displays a slight underlying upward trend from 1.0% at 2000/01 to about 1.3% in 2014/05. Territory Government gambling revenues relative to Australian figures also showed similar an upward trend over the 15-year period increasing from 0.7% to slightly more than 1.1% by 2014/15.

These trends indicate that, totalled over all forms of gaming, turnover in the Territory has maintained a slightly higher than expected (on population grounds) slice of the total Australian gaming turnover. On the other hand, Territory gaming expenditure and government revenues expressed as percentages of Australian totals, despite being at lower than or equal to Australian average levels in 2000/01, have risen by about 20-25% over the 15 years to 2014/15.

Both racing and sports betting show quite different patterns to gaming. Territory racing turnover, expenditure and government revenues relative to comparable Australian figures (Figure 7) shows that in 2000/01, when online racing gambling industry was in its infancy, all three financial indicators industry were just 1-2% of their Australian equivalents. Suggesting a Territory industry at that time which was not atypical in size compared with Australian standard. However, by 2014/15 turnover in the Territory industry had grown disproportionately to be more than a third of all the Australian racing gambling industry. Furthermore, expenditure has grown similarly, off a slightly smaller base than turnover, to be nearly a quarter of that for the whole Australian industry. However, Territory government revenues had not shown comparable increases, fluctuating between just 2 and 5% of their Australian equivalents. Thus, the Territory racing gambling industry has expanded from a turnover of \$400 million in 2000/01 to an entity with turnover of \$6400 million 15 years later, a sixteen-fold increase. This has occurred over a period of time when the racing gambling industry elsewhere in Australia has declined in terms of monetary flows, perhaps by as much as a third in that time (analyses not shown). It seems likely that this change may be underpinned, at least in part, by a general move toward online wagering away from more traditional racing wagering models (ACIL Allen Consulting, The Social Research Centre & The Problem Gambling Research and Treatment Centre 2014, Gainsbury, Russell, Hing, Wood, Lubman & Blaszczynski 2013, Productivity Commission 2010b). Presumably, this has been facilitated by keeping player loss rates (expenditure/turnover x 100) low and, even more, by keeping net profits high as a consequence of very low rates of government revenue take (see later analyses in Figures 13, 14, and 15).

Trends in the NT sports betting industry relative to the Australia-wide sports betting industry over the past 15 years show a slightly different pattern to racing (Figure 8). Ignoring government revenue, which for reasons indicated above is recorded as effectively zero in NT, and focusing on turnover and expenditure (Figure 8), it is clear that the NT industry plays a relatively large part in regulated Australian sports betting, accounting for between 25 and 53% of all Australian sport betting turnover and expenditure respectively. The proportion of Australian sports betting turnover that is accounted for by the NT industry has increased slightly towards the end of this period, from slightly less than 40% in 2000/01 to almost 50% in 2014/15). NT sport betting industry expenditure is correspondingly large by comparison with Australian totals but shows slightly decline in the early 2000s from over 50% to less than 35% over the period.

One interpretation of the sports betting figures is that despite the effective zero tax rates in the NT and higher player return rates from NT sports betting, the dominant NT sports betting industry does not seem to have made huge further in-roads into the wider Australian based industry over the last 15 years.

The contrast between the trends in the NT racing and sports betting industry shares can probably be attributed to sports betting largely being a product of the online age. Online racing gambling (in NT or elsewhere in Australia) is



competing (successfully it would seem) to some extent with more traditional racing gambling (see above references). Whereas, sports betting, NT or elsewhere, is creating a market for itself.

Figures 10, 11 and 12 present the same information as Figures 7, 8 and 9 but grouped by monetary flow variable rather than gambling classification. The latter Figures more readily display the changing prominence (or lack of change) of the Territory's gambling industry within the Australian gambling industry. Thus, for example, Figure 10 shows that turnovers in both the Territory's Gaming and Sports Betting industries have remained essentially constant proportions of their Australian counterparts (about 1% for Gaming and 40% for Sports Betting). Whereas Territory Racing turnover has accounted for a rising proportion of Australian racing turnover, rising from less than 2% in 2000/01 to almost 40% by 2014/15.

Figure 10: Gambling turnover by gambling class for NT as % of Australia, 2000/01 to 2014/15

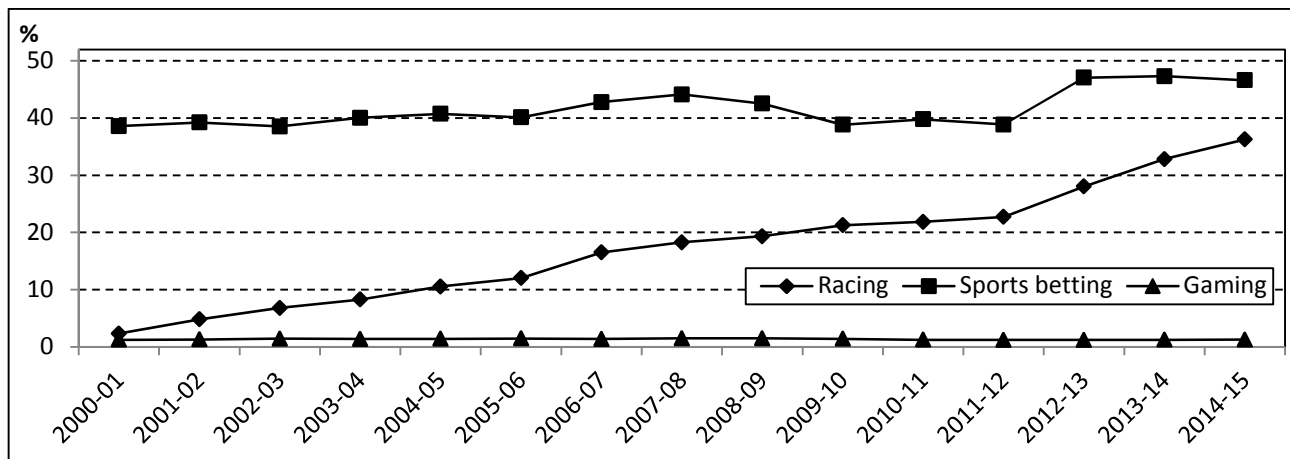
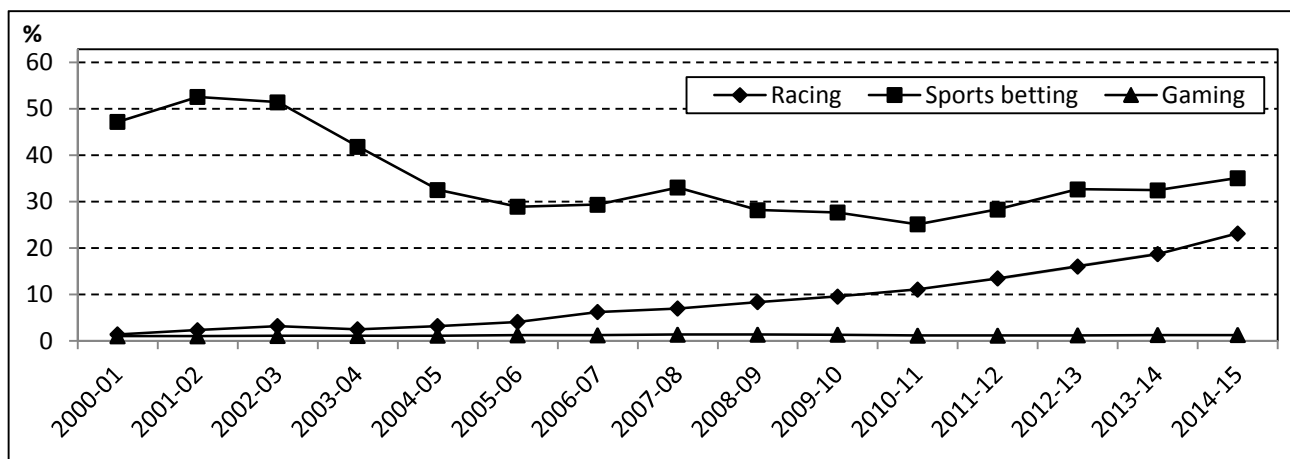


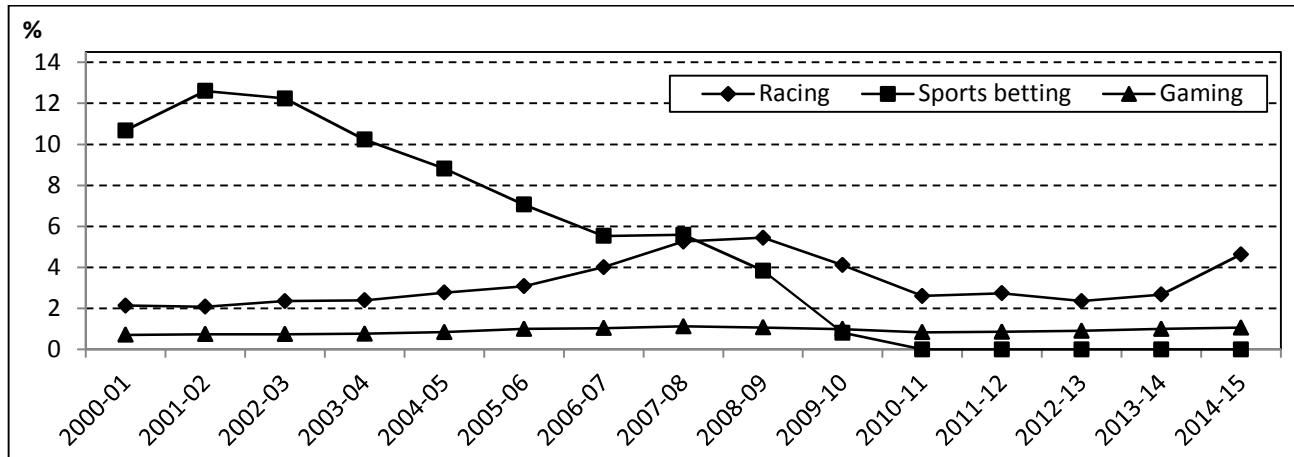
Figure 11: Gambling expenditure by gambling class for NT as % of Australia, 2000/01 to 2014/15





After Marina Strocchi

Figure 12: Gambling government revenue by gambling class for NT as % of Australia, 2000/01 to 2014/15

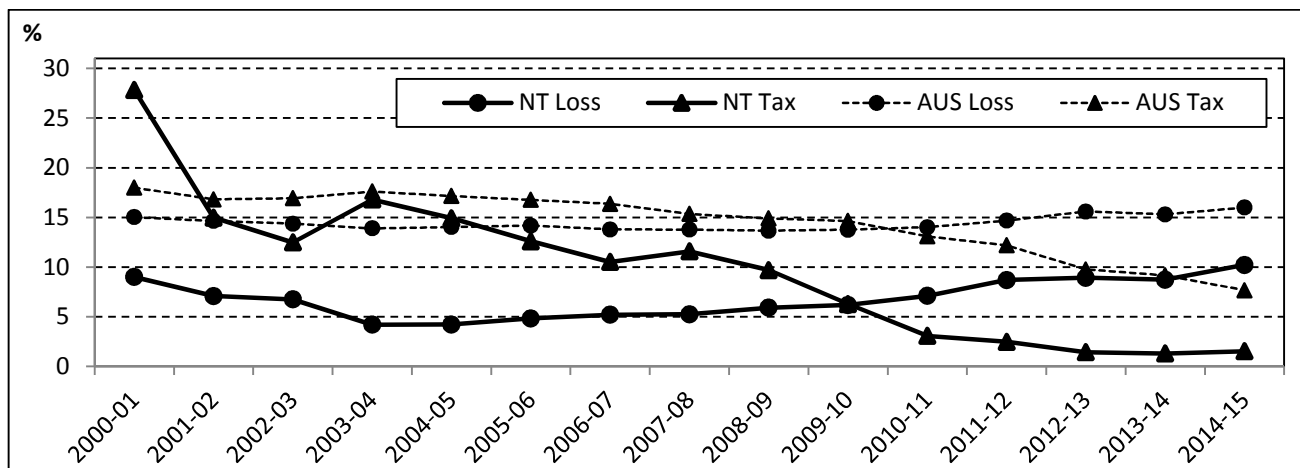


3.2.2.1 Player loss rates and government tax rates for each gambling class

Figures 13, 14 and 15 display changes in player loss rate and government tax rate for NT and Australia over the 15-year period for each of the three gambling classes: gaming, racing and sports betting.

The player loss rate and levels of government tax rates and changes over the period have not been so straightforward for racing or sports betting, as they have been for gaming.

Figure 13: Racing: player loss rate and government tax rate for NT and Australia, 2000/01 to 2014/15



At all times between 2000 and 2015, the Territory has always had much lower racing player loss rates than the Australian average (Figure 13). Both the Territory and average Australian rates have varied over time, the former much more so than the latter. In fact, Territory player loss rates have more than doubled since 2004/5, increasing from less than 5% in 2004/05 to more than 10% by 2014/15. Average Australian rates have also increased since 2004 but by much smaller amounts.

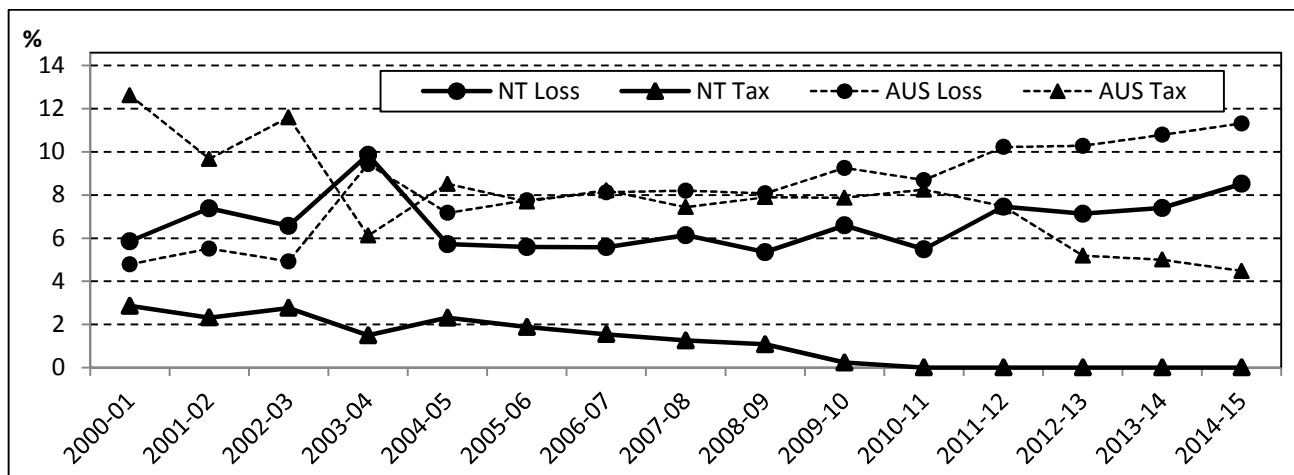
Over the same period (2004-2015) government tax rate has dropped from about 15 percent in the early 2000s for both the Territory racing gambling industry and the Australian average to just 2% for the Territory and to an average rate of 8% for the whole of Australia.



These trends indicate that for a given amount wagered there has been a substantial reduction in the government take of gambled dollars but that this has not resulted in greater returns to gamblers. In fact quite the opposite has occurred, with player loss rates increasing, and thus returns reducing, over this period. Furthermore, these trends are more marked for wagers placed through Territory gambling providers compared with Australian averages. Conversely, the prospects of financial gains for gambling providers have improved considerably as a consequence of both the increases in rates of player loss and reductions in rates of government taxes.

Player loss rates and government tax rates for sports betting (Figure 14) are consistently and substantially lower than they are for racing wagering. Nevertheless, since 2004/05 both sports betting rates show the same general patterns of change with time, and the same differences between the Northern Territory and the Australian average, as their counterparts for racing.

Figure 14: Sports betting: player loss rate and government tax rate for NT and Australia, 2000/01 to 2014/15

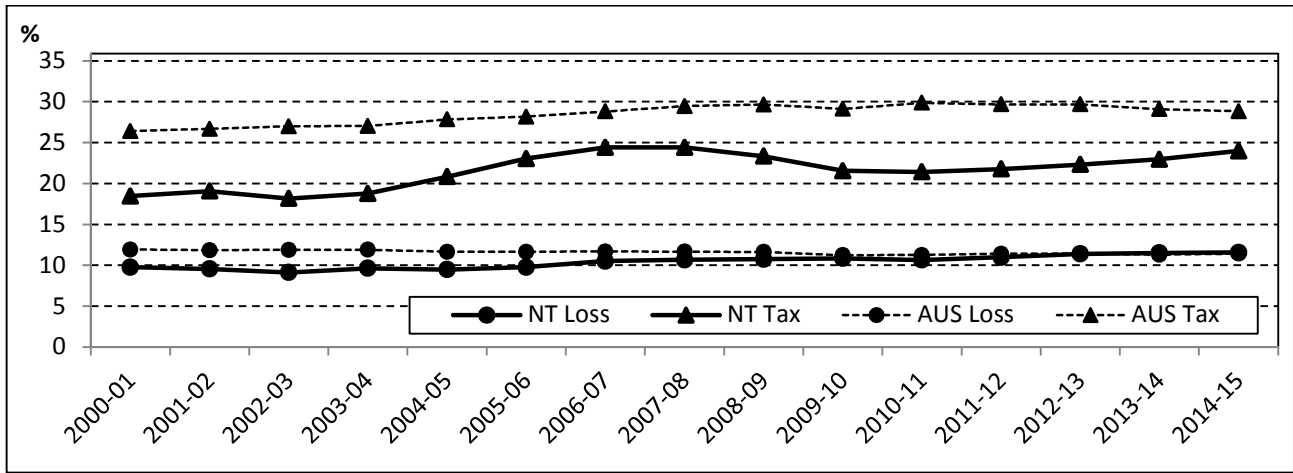


Of the three gambling classes, gaming has displayed the most stable values over time for both the player loss rate and government tax rate (Figure 15), with the average Australian gaming player loss rate being unchanged at about 12% throughout the 15-year period. Player loss rates for gaming for the Territory were slightly lower than Australian rates in 2000/01 (about 10%) but have steadily risen since then to reach the average Australian rate of 12% by 2014/15.

Average Australian gaming government tax rates rose very slightly from their 26% level in 2000/01 (by about 10%) over the first half of the 15-year period but have stabilised or even slightly declined since that time to reach about 29% in 2014/15. NT gaming government tax rates, which are substantially lower than average Australian rates, also increase broadly increased over the 15 years or so. They were slightly less than 20% in 2000/01 and rose to almost 25% in 2007/08 before dipping (around 2008-10) and rising again almost to in 2014/15 (Figure 15).



Figure 15: Gaming: player loss rate and gaming government tax rate for NT and Australia, 2000/01 to 2014/15



That player loss rates are generally substantially lower for Northern Territory sports betting (after 2004/05) and racing industries than for equivalent Australian industry averages is demonstrated directly in Figure 16, where the Territory player loss rates are expressed as percentages of the Australian average rates. The gradual increase in rates of Territory player losses relative to Australian averages for both racing and for gaming is also clearly visible in Figure 16. It can also be seen that since 2013/14 the Territory industry’s player loss rate for gaming has reached or slightly surpassed the average Australian rate.

Figure 16: Player loss rate for NT as % of Australian rate by gambling class, 2000/01 to 2014/15

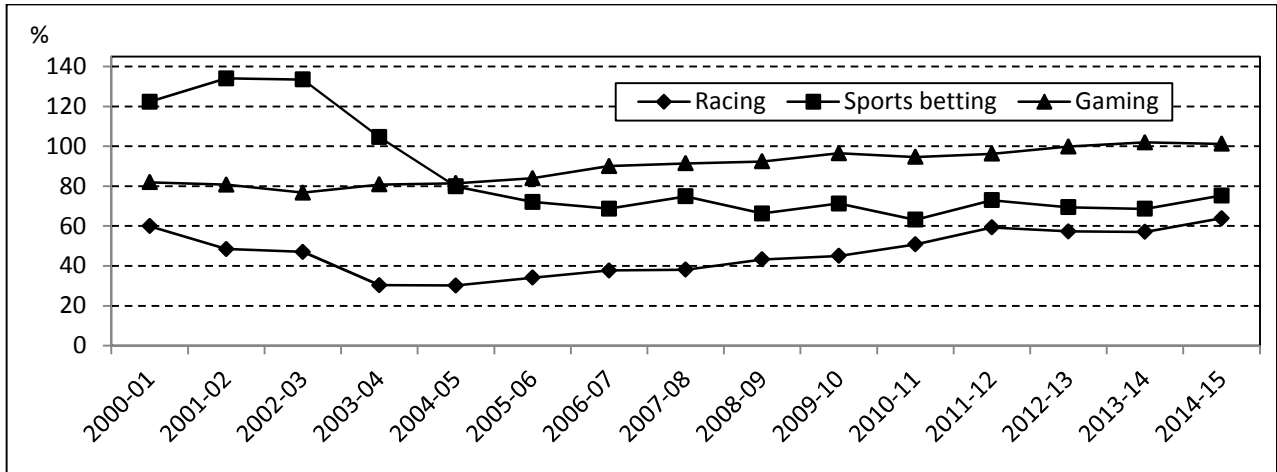
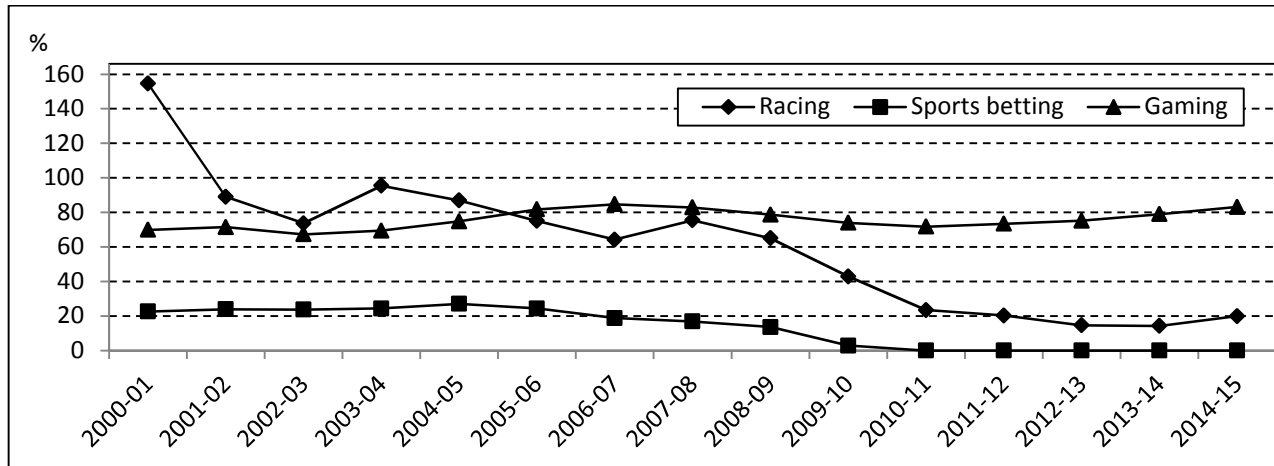


Figure 17 presents the changes over time in the government tax rates for sports betting for the Territory as percentages of the average Australian rates. Despite the uncertainty about the appropriate allocation of Territory government revenues to racing and sports betting the patterns are very clear, with Territory gaming rates have been almost static at about 70-80%% of comparable Australian averages during the 15-year period, whereas racing declining from very high levels to less than 20% of Australian averages, and Territory sports betting rates always being less than 30% of Australian averages and declining to close to zero by 20010/11.



Figure 17: Government tax rate for NT as % of Australian rate by gambling class, 2000/01 to 2014/15



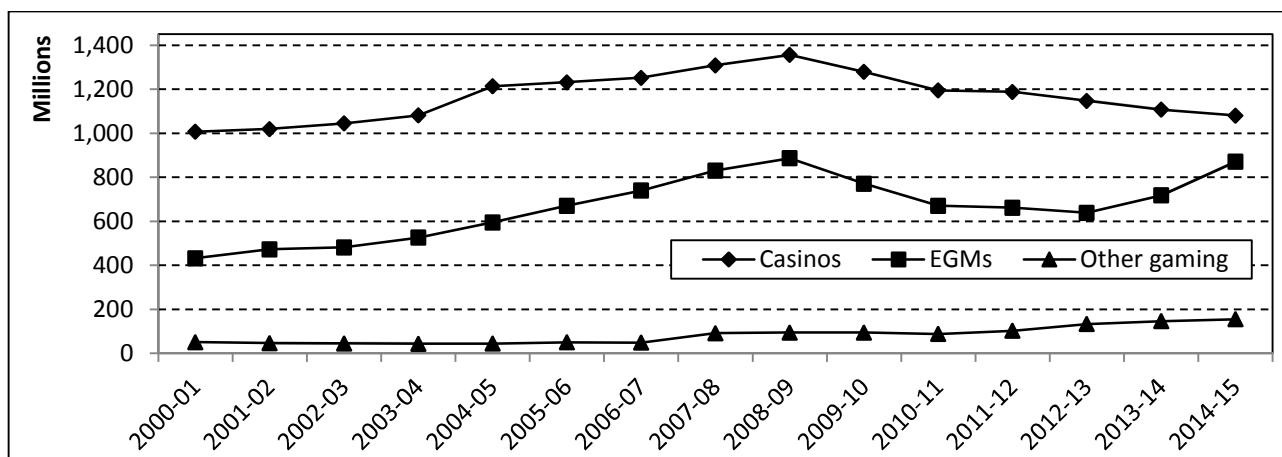
3.2.3 Three gaming sub-classes: casinos, EGMs and other gaming, 2000/01 to 2014/15

The AGSD sub-divides the gambling category ‘Gaming’ into a number of different sub-classes for the purposes of reporting. For the present analyses, all sub-classes with the exception of EGMs in clubs and hotels and all casino gaming activities are grouped into a single ‘Other gaming’ sub-class. Monetary flow data for the three sub-classes (total casinos gaming, EGMs (excluding casinos), and other gaming) are analysed below.

Territory total casino gaming turnover and expenditure have been consistently greater than for EGMs (excluding casinos) (Figures 18 and 19). However, EGMs (excluding casinos) have increased their activities relative to total casinos gaming activity over the period: growing from roughly 40% in 2000/01 to about 80% of casino activity by 2014/15.

Both total casino gaming and EGMs (excluding casinos) turnover and expenditure (Figure 18 and 19) in the Territory steadily increased to 2008/09, but turnover for both sub-classed began abrupt declines after that date (possibly associated with the introduction of smoking bans in licensed premises). Following these declines EGM (excluding casinos) turnover and expenditure beginning to strongly recover in 2013/14, nearly recovering their peak levels by 2014/15. To date, by contrast, casinos show no signs of recovering and, by 2014/15, their turnover and expenditure was about 20% below the peak levels in 2008/09 in real terms.

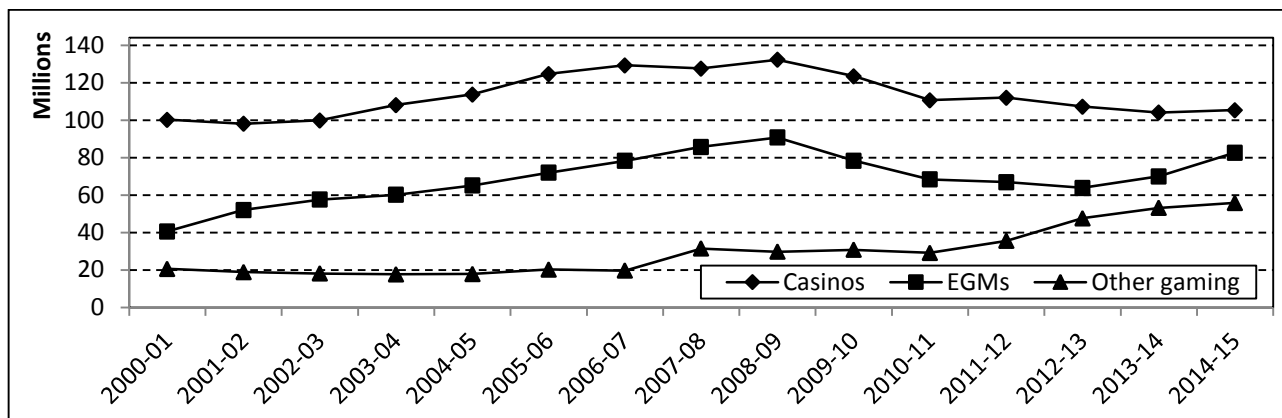
Figure 18: Real gaming turnover by gaming sub-class for NT, 2000/01 to 2014/15





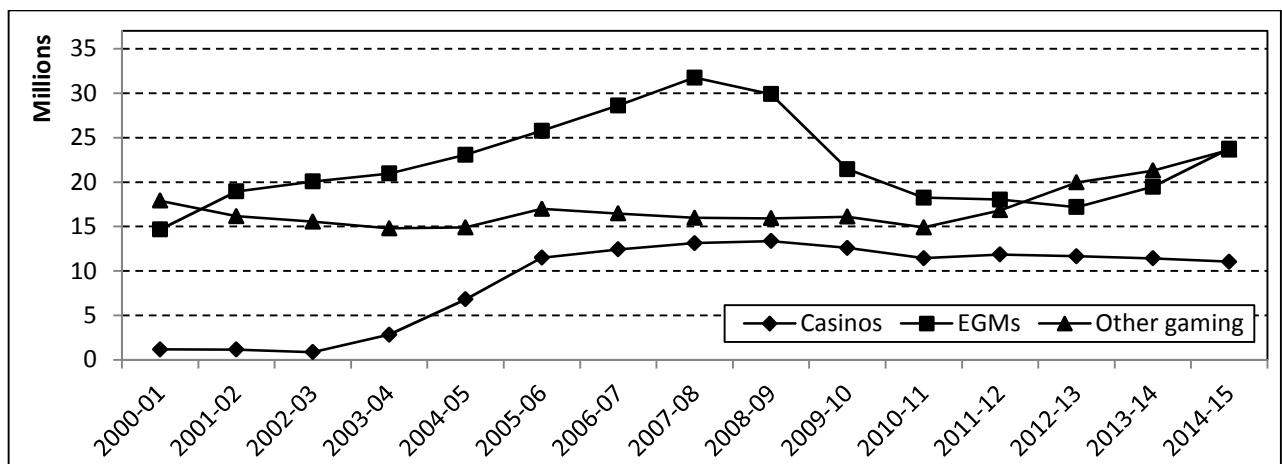
Other gaming activities have much lower turnover and expenditure than total casinos gaming and EGM (excluding casinos) (Figures 18 and 19). However, the pattern of changes in other gaming turnover and expenditure over the 15-year period are almost the opposite to trends displayed by casino and EGM (excluding casinos) turnover and expenditure, showing no increase during the early part of the period to 2007/08 but more than doubling from that date to 2014/15.

Figure 19: Real gaming expenditure by gaming sub-class for NT, 2000/01 to 2014/15



Government revenue returns from the three gaming sub-classes (Figure 20) show different patterns to turnover and expenditure, with the casinos sub-class consistently providing lower levels of government revenue than either of the other gaming sub-classes. Government revenue from casinos has been approximately stable from 2005/06 to 2014/15 at about \$12 million annually. Before that time there was a short period of rapidly rising revenue after an initial (2000/01 to 2002/03) period of extremely low revenue collection.

Figure 20: Real gaming government revenue by gaming sub-class for NT, 2000/01 to 2014/15



Government revenue from EGM (excluding casinos) doubled (from \$15 million to more than \$30 million) over the first half of the period (Figure 19), from 2000/01 to 2007/08, before declining even more sharply than the decline that occurred at roughly the same time in turnover and expenditure (Figures 17 and 18). However, like turnover and expenditure, revenues have recovered quite substantially in the last two years, 2013/14 and 2014/15.

Government revenue from other gaming was remarkably high (about \$16 million annually) compared with expenditure levels for this sub-class of gaming and was largely unchanged in real terms until 2010/11. After that time, they have steadily increased and by 2014/15 were more than 50% higher than 2010/11 levels.

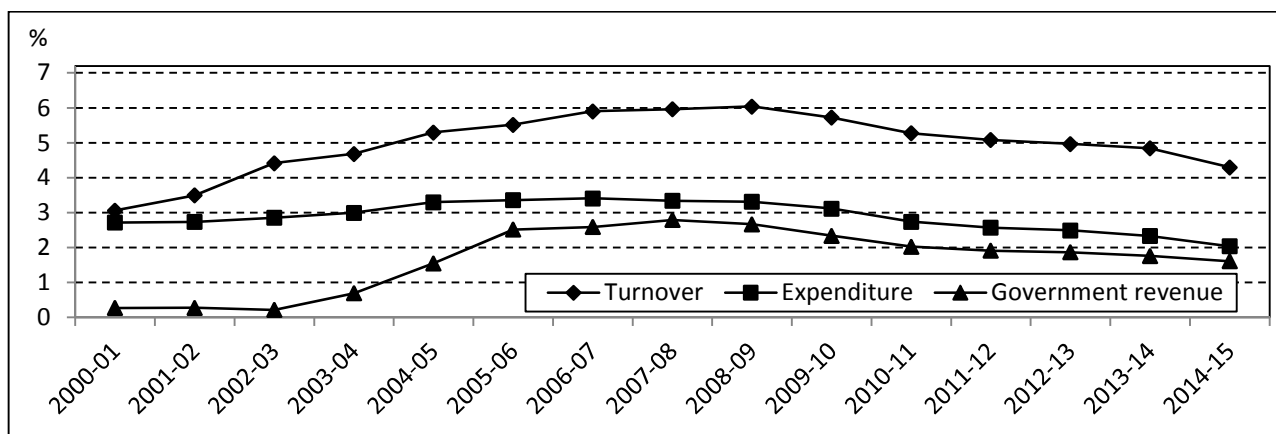


3.2.3.1 Financial indices for each gambling sub-classes, NT expressed as % of Australia

Figures 21, 22 and 23 show the financial size of the Territory's gaming industry relative to that of the whole of Australia's, for each of the different gaming sub-classes.

Territory total casino gaming (Figure 21) generally represents much more than 1% of comparable Australian industry turnover or expenditure. Casino activities are therefore somewhat over represented in the Territory than would be expected by comparison with the Territory's adult population (just 1% of Australia's). However, there has been considerable fluctuation over the years. During the 15-year period, Territory casinos have represented between 3 and 6 percent of Australian casino turnover and between 2 and 3 percent for expenditure, but between 0.2 and 2.7% for government expenditure. All three indicators show clear increases to 2007/08 but increasingly rapid declines in the years since then, with some of the strongest declines being in the most recent years (2013/14 to 2014/15).

Figure 21: Casinos: Real Turnover, Expenditure and Government Revenue for NT as % of Australia, 2000/01 to 2014/15



Despite large changes in the annual values for all three financial indicators (turnover, expenditure and government revenue), Territory EGM(excluding) activities are always less than 1% of Australia's (Figure 22), indicating that relative to the rest of Australia, EGMs (not casinos) activity has been underrepresented in the Territory for the whole of the 15-year period.

The remarkable consistency between the graphs in Figure 22 for turnover, expenditure and government revenue indicates there is a high level of conformity between the Territory and the Australian average in the relationships between the three flow variables. As has been seen before in other graphs, there were strong increases up to about 2007/08 in all indicators, followed by relative sharp declines until 2012/13 and then further increase in the final two years. This suggests that the driving force behind these changing patterns is a Territory phenomenon. It is possible that the declines between 2007/08 and 2008/09 are a consequence of the smoking ban being introduced into in EGM venues at about these times.



Figure 22: EGMs: turnover, expenditure and government revenue for NT as % of Australia, 2000/01 to 2014/15

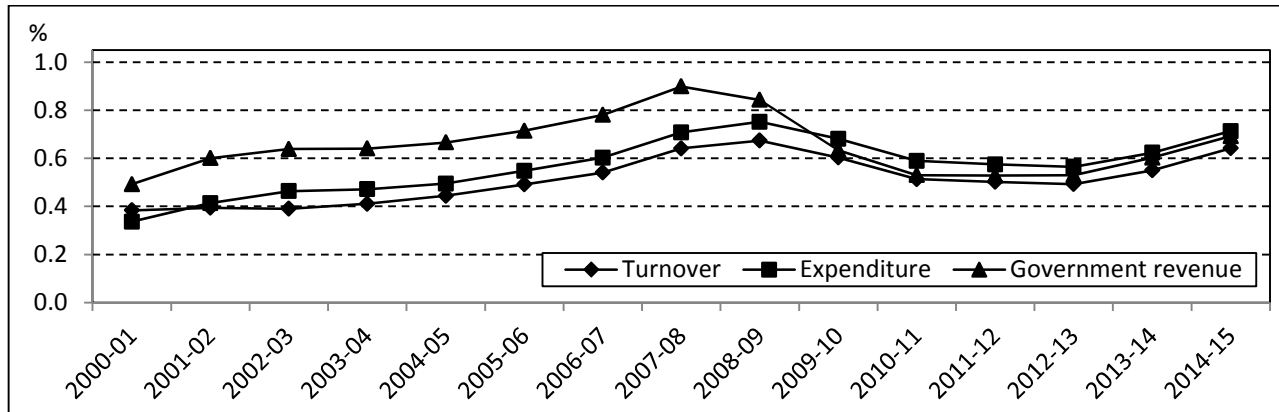
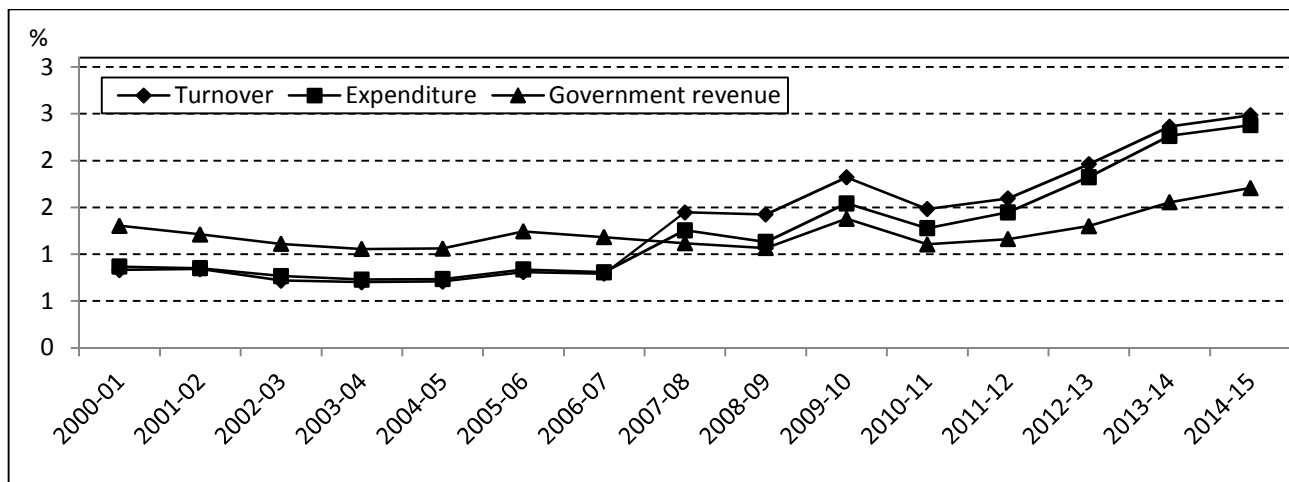


Figure 23: Other gaming: turnover, expenditure and government revenue for NT as % of Australia, 2000/01 to 2014/15

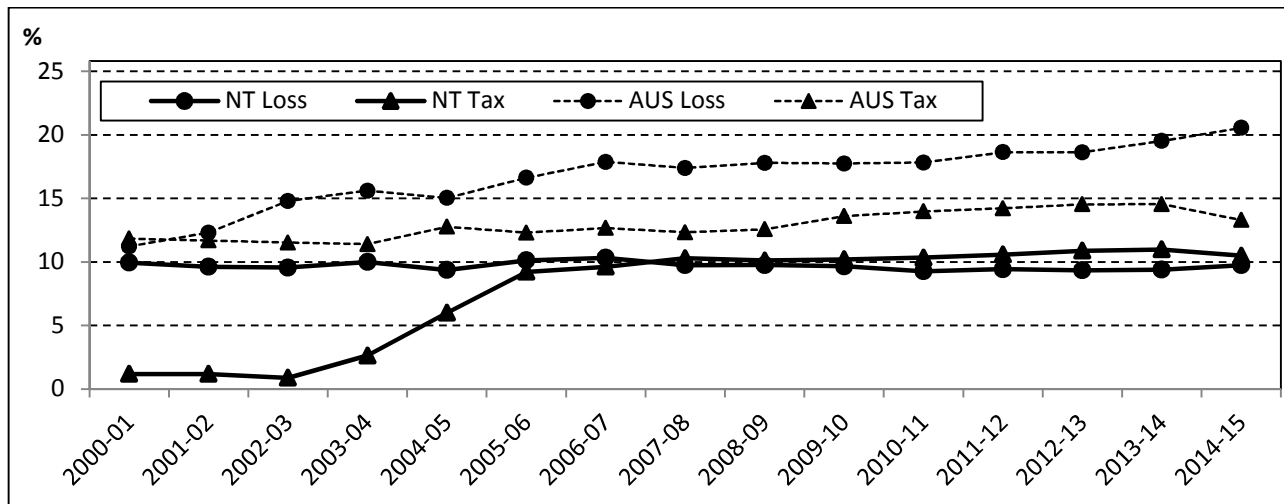


3.2.3.2 Player loss rates and government tax rates for NT and Australia

Total casino gaming player loss rates in the NT have remained remarkably constant, at around 10%, for the whole of the 15-year period under study (Figure 24). This contrasts with Australian Casino player loss rates, which have almost doubled over the 15-year period, starting at close to the Territory level of 10% in 2000/01 and increasing to more than 20% by 2014/15. It is not clear why the Territory player loss rates have remained so constant, nor is it clear what has been behind the increase in the Australian casino player loss rates.



Figure 24: Casinos: player loss rate and government tax rate for NT and Australia, 2000/01 to 2014/15



The effective tax rates for Territory casino gaming activities was initially (2000/03) very low, between 1 and 2 %; by 2005/06 the rate had increase to almost 10% and has remained at about the level ever since. Australian casino gaming effective tax rates were about 12% in 2000/01 and increased slightly to almost 15% by 2013/14 but have dropped back a bit to about 13% in the latest years of reporting. It is possible that the very low effective tax rates in the early 2000s may have been a consequence of favourable arrangements associated with the establishment years of the two Territory casinos.

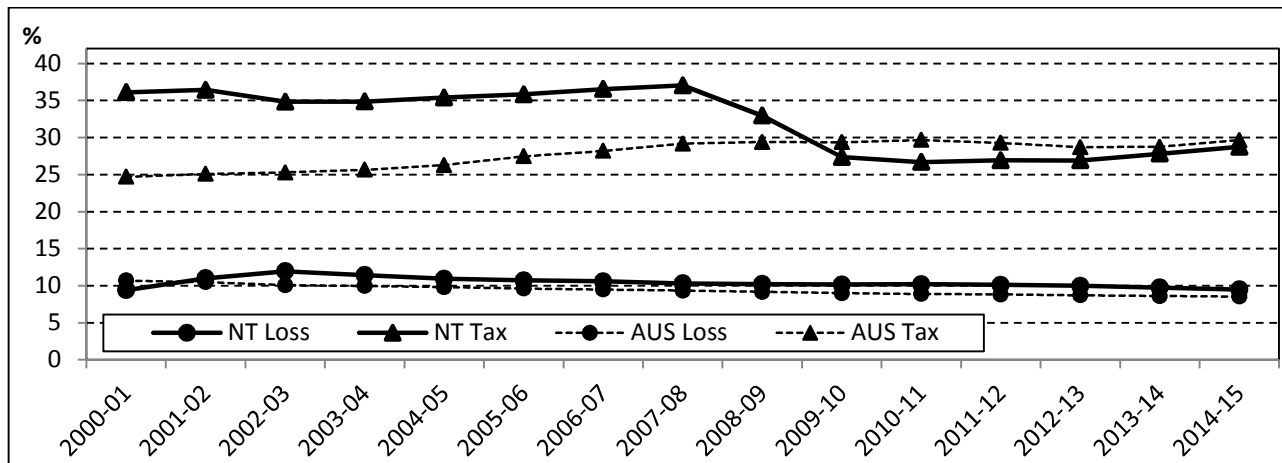
The slight increase in the Australia-wide effective tax rate during the period may have been caused by either a real increase in the average rates of state and territory revenue extraction from casino gaming expenditure, or by changes over the years in the relative composition of the casino gaming sub-class in terms of types of gaming activities (which may have different tax rates) in total casino expenditure over the years.

Player loss rates among EGM (excluding casinos) in Territory hotels and clubs have been around 10% for the whole period from 2000/01 to 2014/15 (Figure 25). This is very similar to the Territory casino player loss rates. The Australian average player loss rate for hotel and club EGMs is consistently and very slightly (about one percentage point) lower than the Territory rate. Both Territory and the Australian-wide player loss rates have shown consistent, very slight declines over most of the study period, dropping by about one percentage point in total over the past 10 years. This suggests that there has been little if any change in the minimum regulated return rates for hotel and club EGMs over the study period. There does not appear to be an obvious cause of the small rate declines as noted above.

The Territory hotel and club EGM effective tax rates were more than 35% until 2007/08 (Figure 25) when a clear decline in rates occurred, steading out at around 26-28% from 2009/10 to 2014/15. Australian average effective tax rates on hotel and club EGMs (at 25-29%) was much lower than the Territory rates until 2008/09. However, ever since 2009/10 (following the large decline in Territory rates which occurred between 2007 and 2009) Australian average rates have been slightly higher than Territory rates. Whether the sharp decline in the effective Territory tax rates between 2007 and 2009 are in some way associated with the decline in hotel and club EGM turnover and expenditure, which occurred at this time, is not clear. Since the latter declines were probably, a consequence of the introduction of smoking bans in these venues, it is unclear why such an association would exist.



Figure 25: EGMs: player loss rate and government tax rate for NT and Australia, 2000/01 to 2014/15



Both the player loss rates and effective tax rates for the 'Other Gaming' sub-class of gaming activities (Figure 26) are very much higher than the other two gaming sub-classes. This is true for both the Territory and Australia-wide. Territory and Australian player loss rates are quite similar and have been about 35-40% for the whole of the fifteen-year period. Australian effective tax rates have been almost 60% for the whole period. Whereas, Territory effective tax rates were between 80 and 90% until 2006/07, after which they fell to 50% in 2007/08 and have gradually declined to about 40% in recent years. While higher player loss rates for the gambling activities within the 'other gaming' sub-class of gaming may be the result of relatively high associated costs of marketing these types of gambling activities, it is not clear why government gambling taxation rates should be so much higher for these gaming activities.

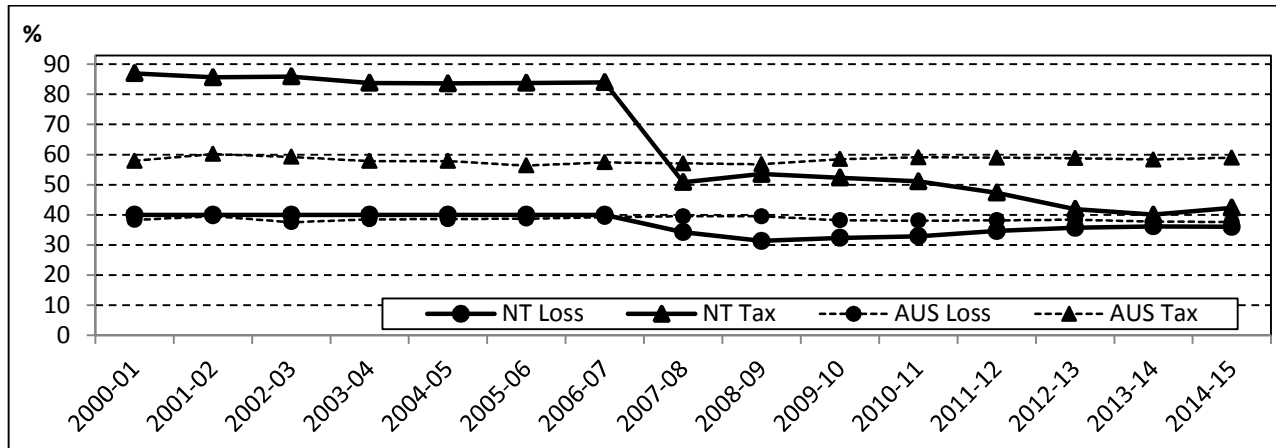
It is noteworthy (and inexplicable) that, despite the extraordinarily high player loss and government tax rates (Figure 26), the 'other gaming' sub-class of the gaming class has recently seen substantial increases in both turnover and expenditure in the Territory (see Figure 23). This might be explained in terms of:

- Consumers being extremely insensitive to value for money (i.e. the do not focus on the proportion of their gambled stake (turnover) which is available as winnings), or they are simply unaware of the low returns for these types of gambling activities, and
- Both gambling providers and gamblers are quite resilient to governments taking extremely large proportions of expenditure in taxes).



After Marina Strocchi

Figure 26: Other gaming: player loss rate and government tax rate for NT and Australia, 2000/01 to 2014/15



The Territory casino gaming player loss rates are much lower than Australian average rates (Figure 23). In recent years, the Territory's player loss rates have dropped to less than half the value of Australian averages. Whereas, since 2001/02, the effective tax rates on Territory hotel and club EGMs have been consistently 10-20% higher than Australian averages. For other gaming activities the Territory's effective tax rate was slightly higher than the Australian average until 2006/07 but slightly lower since then (Figure 27).

The final two figures express the player loss rates for the Territory (Figure 27), and the effective tax rates (Figure 28) as percentages of their equivalent average Australian rates for each of the three gaming sub-classes. Since 2008/09 Territory effective tax rates for all three sub-classes of gaming have been between 70 and 100% of equivalent Australian rates (Figure 28).

Figure 27: Player loss rate for NT as % of Australian rate by gaming sub-class, 2000/01 to 2014/15

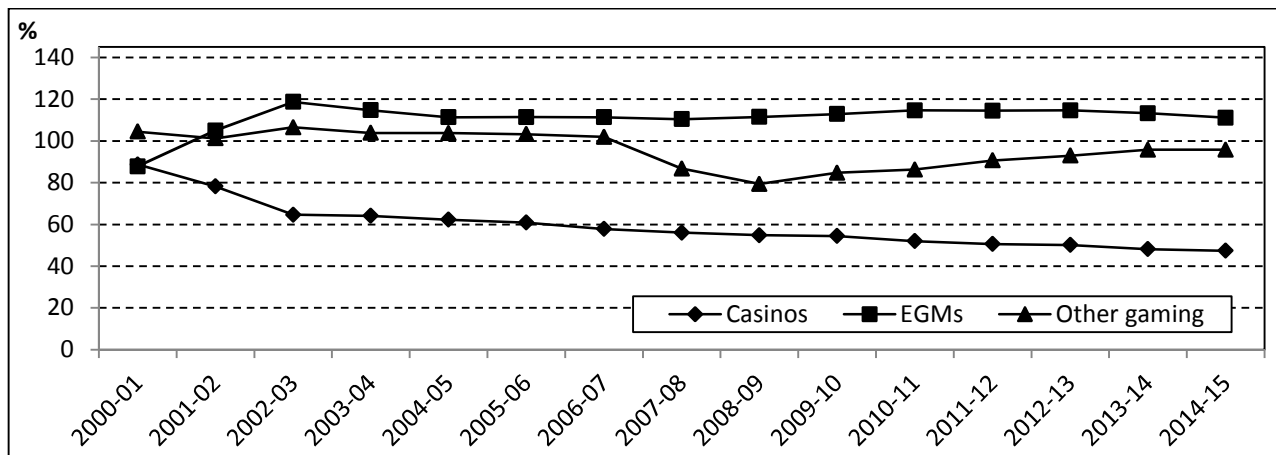
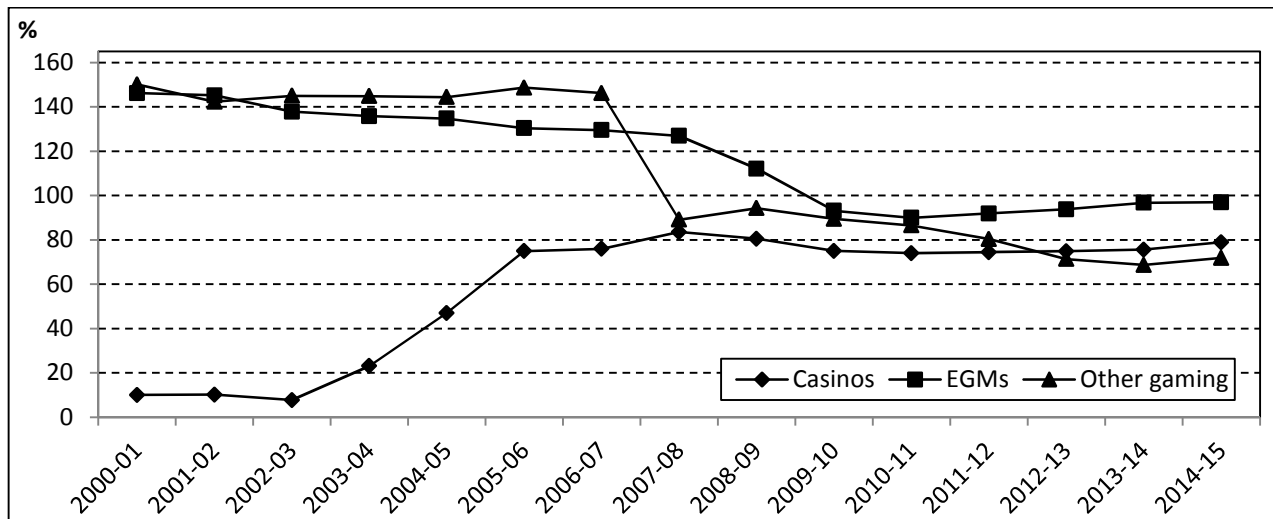




Figure 28: Government tax rate for NT as % of Australian rate by gaming sub-class, 2000/01 to 2014/15



3.2.4 Summary of changes in NT gambling financial indicators, 2000/01 to 2014/15

- Despite real money flows through NT gaming industry activities changing relatively little between 2000-15 (but not stayed completely constant, see below), racing and sports betting have seen a dramatic increase in real turnover and expenditure but no increase, even a decline, in the total government gambling revenue collected.
- NT government revenue from all types of regulated gambling has increased much more slowly than NT gambling industry turnover and expenditure.
- Following on from the above, effective government gambling tax rates averaged across all gambling activities have declined substantially, particularly since 2008/09, from over 15% to just over 5% and are still declining.
- NT industry's effective tax rates for racing and sports betting have declined markedly over the 15 years, but gaming effective tax rates have increased slightly.
- Within the gaming gambling class, there have been some noticeable short-term changes in the effective tax rates for individual gaming sub-classes. (i.e. casinos 2003-2005 – possibly policy related; club and hotel EGMs 2007-2009 – probably related to reduction in activity due to smoking bans in venues; other gaming 2006-2007 – possibly policy related.)
- Player loss rates in the NT have shown small but noticeable increases over the 15-year period. These increases were smallest (1-2 percentage points over 15 years) for gaming activities but larger for racing and sports betting activities (almost doubling between 2004/05 and 2014/15).



3.2.5 Main similarities and differences: NT & Australia money flow changes, 2000/01 to 2014/15

- Over the past 15 years, the proportion of the turnover (expenditure) of all Australia's regulated gambling activities that is channeled through Territory regulated providers has increased from little more than 1% to 6 % (for turnover) and to 5% (for expenditure), but has remained roughly unchanged at about 1% for government revenue.
- The NT gambling industry has consistently accounted for about 40% of Australia's total sports betting turnover and expenditure as these have grown from \$500 million annually in 2000/01 to about \$3500 million in 2014/15 but, in terms of government revenues, NT's share has declined from about 10% to negligible levels over the same period.
- This contrasts with changes in Australian gambling racing money flows, for which NT share has increased from about 2-3% for all three variables to 35% (turnover), to 23% (expenditure) but by to less than 5% for government revenues.
- NT, as a proportion of Australia's total gaming activities, has seen only relatively small increases in money flows over the past 15 years. Throughout the period, NT had accounted for, very roughly, close to one percent of Australia's activities for all three gambling money flow variables.
- Despite some quite noticeable divergence in the early 2000s between NT and Australian player loss and effective taxation rates, the NT rates for EGMs in clubs and hotels and other gaming activities have shown a strong tendency to converge to the comparable Australian rates by the later 2000s. This is in contrast with casinos, for which both the player loss and government tax rates have generally tended to converge, with Australian rates starting high and ending up even higher.
- NT player loss and effective government taxation rates for sports betting and racing are extremely low by Australian standards. However, NT player loss rates have been steadily increasing and are now more than double their lowest rates (in 2003/04), whereas government taxation rates are still declining to effectively trivial levels by comparison with taxation rates on gaming activities.

4 Discussion

The discussion section covers a number of issues. Firstly, some limitations of the available data are considered to emphasise where caution should be exercised in the interpretation of the results of some of the analyses. Secondly, the size of the past, current and future Territory gambling industry is considered. Thirdly, the key findings relating to rates of player loss and effective government taxation of racing and sports betting wagering in the Territory are discussed and their possible implications are explored. Fourthly, the implications for the Territory's online wagering industry are explored. The fifth section briefly explores online gambling issues which arise because of the location of the wagerer being different to that of the gambling provider. The final section briefly proposes some principles that might be considered for underpinning gambling taxation arrangements and rates.



4.1 Data issues

Possibly, because its origins are in pre-internet days, the AGSD collects and prepares reports using gambling classifications which do not specifically identify online wagering activities. The analyses undertaken here follow the AGSD gambling categories and, therefore, do not separate online and non-online racing wagering. Instead, all gambling activities associated with racing have been lumped together under a single 'Racing' classification in the AGSD. In addition, we have used another single 'Sports betting' category to represent all regulated sports betting gambling activities. However, it is likely that for quite some years the vast majority of gambling activities recorded by AGSD as racing and sports betting wagers in the Territory will have been online internet based. Given the very small number of providers of non-online wagering in the Northern Territory and the relatively small sums of money they account for, it is reasonable to interpret the growth in the Territory's 'Racing' and 'Sports Betting' as relating very largely to online wagering activities. Consequently, we can be confident that the results of the racing and sports betting gambling class analyses for the Territory presented here refer very largely to the Territory's online wagering industries. It is less clear how Australia's racing and sports betting analyses can be interpreted in terms of online wagering or not.

Of course, more precisely categorised data would be preferred and would allow more exact analyses and interpretation, but such data are not available from the AGSD and may not be publically available from other sources. This contrasts with the availability of data for other gambling activities regulated by the Territory government. For example, EGM data from clubs and hotels and casino data, for which annual player loss data is published for each licensed venue in the Director-General's Annual reports. No detailed data on individual online providers appears to be routinely made available through the Director-General's Annual Reports (Director-General of Licensing 2015). Whether this is also the case for other jurisdictions has not yet been explored.

While data on racing gambling activities in the Territory may be confidently interpreted as largely relating to online providers, this is not true of other Australian jurisdictions. Thus, the racing category, when referring to Australia or the rest of Australia excluding NT, may include substantial amounts of non-online racing-related wagering, and the results of comparisons, presented here, of NT to Australia with respect to racing gambling money flows may reflect a substantial amount of non-online wagering outside NT. Thus, apparently noteworthy NT to Australia racing comparisons (for instance, changes over time to the effective government taxation rates) may be the consequence of NT's almost exclusively online racing activities being compared with Australia's, possibly substantially non-online, activities. Furthermore, if the proportion of gambling activities that are on-line in Australia has been changing over time, it is possible that such distributional changes will have been at least partly responsible for observed time trends, rather than them being caused wholly by differences between the Territory and Australian online activities.

Sports betting would appear to have been very largely an online activity in recent years. Consequently, while the interpretation of comparisons between NT and average Australian racing gambling money flow may need some caution for the reasons mentioned above, turnover and expenditure on sports betting activities do not appear to suffer from the same issues.

Nevertheless, the AGSD reports one significant anomaly regarding Territory sports betting gambling money flows (Queensland Government Statistician's Office - Queensland Treasury 2016e). It would appear from details provided in the AGSD explanatory notes that, since about 2007, AGSD has not reported separate Territory sports betting related government revenues. Instead, this revenue has not been distinguished from Territory racing related government gambling revenues in the data reported to them from the Territory regulator. All racing and sports betting related government gambling revenues have been reported under the racing heading. While this sounds like a serious deficiency, in practice, it is of little consequence for analyses (at least for making Territory to Australian comparisons) because of the very low relative levels of Territory government gambling revenue collection from either racing or sports betting activities.



4.2 Consequences of a large and growing gambling industry in the NT

The results of these analyses demonstrate that the Northern Territory now has a gambling industry, specifically an online racing and sports betting industry that has very substantial amounts of money flowing through it. The numbers are so large they are difficult to comprehend in isolation. A helpful comparison for appreciating the size of the monetary flows through the Territory's gambling industry is provided by the total annual retail trade of the Northern Territory, which for 2014/15, was \$3.1 billion dollars (Australian Bureau of Statistics 2016). By comparison, the expenditure through the Territory's racing and sports betting industries is now approaching one third the size of the total Territory retail trade, while turnover is about 3 to 4 times the amount of retail trade (Table 15).

The time series analyses demonstrate that the Territory's gambling industry has grown very substantially over the past 15 years or so, against a backdrop of relatively little growth elsewhere in Australian regulated gambling. Indeed, almost half the growth in regulated gambling expenditure that has taken place through the Australian gambling industry over the past 15 years has been in the Territory's industry. Further, this growth has been very selective. Like the rest of Australia, there has been little if any growth in the Territory in the sections of the gambling industry which provides gaming activities. Almost all growth in money flows has been in the turnover and expenditure of the racing and sports betting activities. Although there has been some growth in the revenue flowing to the Territory government from the increase in these gambling activities this has not kept pace with growth in turnover and expenditure.

Clearly, the industry is a significant player in the Territory's economy. It makes a direct and non-trivial contribution to the Territory government's annual budget, of the order of 10% of taxation revenues raised directly by the Territory government (Northern Territory Department of Treasury and Finance, 2015). However, the enormous growth in expenditure and turnover combined with the very low effective taxation rates begs the question whether the Territory gambling industry should be required to make a much greater contribution to the Territory's annual budget. On the other hand, the possible ethical dilemmas of developing a high level of dependence on revenue from gambling should not be dismissed lightly.

There is no doubt the gambling industry contributes to Territory employment (both directly and indirectly through multiplier effects) although no analysis is made of the extent of this here. No doubt, some sectors of the gambling industry bring indirect beneficial economic effects to the Territory through the tourism industry and other sectors of the economy. This is also not explored here. Neither are the potential downsides to economic activity that can be associated with gambling through social and financial harms that problem gambling can bring.

It is important to emphasise that large growth in the Territory's gambling industry is not synonymous with large increases in gambling by Territorians (Section 4.3 and 4.4). There is no suggestion from these analyses that this is the case. In fact, when analyses are restricted to the Territory's gaming sector, the sector still responsible for the vast majority of regulated gambling undertaken by Australians (and probably Territorians), growth in Territory gambling, like Australian gambling, shows very little if any increase at all over the past 15 years. In fact, taking population growth into account the extent of gaming per capita in Australia and in the territory appears to be declining.

The spectacular growth in the Territory's industry is restricted to the racing and sports betting sectors, almost certainly just the online components of this sector, which may still only account for about 10% of Australian gambling turnover and expenditure. However, given current growth rates we can expect this percentage to increase markedly. What the consequences might be and should be for the Territory are important considerations that should be under active consideration now. Some questions deserving policy consideration by the Territory government for gambling regulation and revenue collection purposes and which are important matters for the broader Territory community are:



- Has growth in the Territory's racing and sports betting industries been encouraged by current gambling taxation and licensing regulations?
- If current regulations remain in place, what is the likely future growth prospects for (a) NT gambling industries, (b) NT gambling revenues, and (c) demand from other jurisdictions for changes to current NT regulatory arrangements?
- Does the NT Government have 'duty of care' or moral similar responsibilities for gambling related harms experienced by residents of other jurisdictions whom are clients of gambling providers regulated (and taxed) by the NT Government?

4.3 Player loss and government tax rate findings and some implications

Besides the clear messages about the past and continuing growth in the online components of the Territory's gambling industry, there are a number of other findings worthy of note to emerge from the analysis. Most notable are those relating to the comparison of key rate parameters (player loss rates and government tax rates) between the Territory industry and the Australian industry as a whole. Generally, the different sectors of the Territory industry have (and have had for the past 15 years) both lower player loss rates and lower effective government tax rates than comparable sector averages for Australia. Thus, if gambling was a typical industry these differences might be characterised by describing the Territory's 'business conditions' as generally more favourable than the Australian average. Further, the Territory 'business conditions' would appear to be very much more favourable for racing and sports betting activities than for gaming activities. Whether this was, or is, either intended or desirable is not clear but should be added to the list of questions the Territory government and community might usefully consider.

It is particularly noteworthy that for the sector of the industry dealing with EGMs in clubs and hotels, both the key rate parameters have converged in recent years to be very close to Australian averages. This suggests that the EGM industry in the Territory and elsewhere in Australian jurisdictions have been operating in broadly similar ways, possibly because common government policies or regulations (relating to factors influencing these two key parameters) have been adopted in the Territory and most other Australian jurisdictions. Alternatively, jurisdictions may have at least adopted similar underlying views from which they have shaped their respective policies and regulations. Given that EGMs in clubs and hotels are now, and have been for many years, by far the dominant gambling activity in Australia suggests a degree of policy convergence exists across jurisdictions and has existed for some time. Whether this has been intentional and what the precise mechanisms driving these common outcomes might be are questions outside the scope of this study.

The convergence in key parameters that has occurred in the EGM sector between the Territory and Australia is in stark contrast to the very large differences for the key rate parameters for the racing and sports betting sectors. This lack of convergence in rate parameters for these sectors suggests policies and regulations for the Territory are different to those for other Australian jurisdictions. It is possible that some part of the difference between Territory and Australian rates is a consequence of differences in the precise mix of types of gambling within the racing sector. Nevertheless, this would not account for all differences. It is not clear why policies and regulatory arrangements should be so different for this sector of the gambling industry but apparently quite similar for the EGM sector. Nor is it clear whether it is in the public interest that there should be (or should not be) commonality across jurisdictions with respect to policy and regulatory outcomes (i.e. the values of key rate parameters). These questions are outside the scope of this study.

A related set of questions arises concerning whether and, if so, how the differences between Territory and Australia in the value of the key rate parameters might be driving (in the case of racing) and maintaining (in the



case of sports betting) the ever increasing dominance of the Territory in these sectors of the industry. It is possible, even probable, that the apparently ever decreasing (over the last 10-15 years) effective rate of taxation of the Territory's racing and sports betting sectors are driving, through increasing gambling provider profitability, the growing dominance of the Territory as the Australian jurisdictional location of preference for online gambling providers. This may be true but the present research, which does not consider the details of government policy and regulations, or their changes over the years, does not establish the causal link. The declining Territory effective tax rates are, or could perhaps also be driving dropping rates in other jurisdictions; although (as mentioned above) a changing mix of gambling types within the racing class may also have had an impact on the analysis results. However, now that Territory tax rates are so low, especially in sports betting, they cannot drop much further (indeed, they increased slightly in 2014/15) and it is unclear what may happen in the future. Exactly what mechanisms are at play here is unclear, and outside the scope of this paper.

It is particularly interesting to note that, despite the apparently overall favourable 'business conditions' for online wagering in the Territory compared with the rest of Australia, there have been significant changes in the player loss rates over time. For the past decade, despite the ever-increasing racing and sports betting aggregate turnover and expenditure, player losses rates have been continually but gradually increasing in the Territory. So much so that they are now (2014/15), double what they were 10 years ago. In fact, the increases in player loss rates have far exceeded recent decreases in effective Territory government tax rates. It seems unlikely that the costs (per unit of turnover) of providing online wagering services would have increased over the past ten years. If anything, they would be expected to have decreased as turnover rapidly increased during the period. Given that player loss rates (gross profit rates) have doubled over the past ten years for the Territory's racing and sports betting industries, it seems likely that net profit, per unit of turnover, might therefore have also at least doubled over the past decade. Further, given the huge recorded increases in turnover and the probable doubling in net profit rates per unit of turnover that have occurred over this period it appears that competition between online providers has not driven down net profit rates as market theory would suggest it should. If this is the case, and some sort of market failure has been occurring, there may be a need for additional government regulatory intervention, as would be expected for any market failure of significant importance.

4.4 Contributions to costs of gambling harm alleviation / community benefit

It is broadly accepted that gambling can cause harm and this harm can have social and financial costs, some of which must be met by government and the community (Abbott, Bellringer, Garrett & Mundy-McPherson 2014, ACIL Allen Consulting, The Social Research Centre & The Problem Gambling Research and Treatment Centre 2015, Productivity Commission 2010a). Further, it is accepted practice by governments, at least for some forms of gambling, that some gambling profits and or taxation receipts should be returned to the community in the form of initiatives which benefit the community. Licensing fees and taxation of gambling are justified in part by such measures. Some part of that taxation is often earmarked to target specific issues directly related to gambling – these funds, or the program which benefits from them, are sometimes referred to as a 'Community Benefit Fund' (Northern Territory Government 2015).

In most Australian jurisdictions, some part of licensing and taxation from casino and EGM activities in clubs and hotels contribute to 'community benefit' (Productivity Commission 2010a). This is the case in the Territory (Northern Territory Government 2015, 2016a), where hotels and, more recently, casinos contribute 10% of EGM player losses to the Community Benefit Fund, while clubs distribute this 10% directly through community grants or in-kind contributions (Northern Territory Government 2016d). No government revenue collected from the Territory's racing and sports betting industries is contributed to the Territory's community benefit fund, despite the fact that this sector accounts for about 85% of player losses across the Territory's gambling industry and is growing rapidly. It is possible that no contribution is made because the effective taxation rate of racing and sports betting is



now so low. However, this would seem to be an argument for increasing the taxation rate rather than not contributing to a Community Benefit Fund.

There are a number of approaches that could be adopted for defining how contributions to Community Benefit Fund (CBF) should be determined from the different industry sectors. The simplest would be a contribution directly in proportion to the total sector player losses for that jurisdiction. A more sophisticated approach might be to weight contributions according to some measure of the propensity of each sector to be associated with problem gambling or gambling harm. Such weights could possibly be estimated from gambling prevalence surveys, which explore different sectors' involvement in harm.

4.5 Location of wagerer

Australia's gambling licensing/taxation system appears to be constructed around the regulating authority (i.e. the jurisdictional government) being provided with licensing fees by providers and, where appropriate, also being provided with information setting out the extent of gambling activities undertaken through each gambling provider and for the providers to transfer any appropriate activity based revenue (taxation) to the jurisdiction in which they are located. Prior to the Internet age, this was an efficient and obvious way to administer revenue-raising arrangements.

Since the advent on online wagering the previous efficient revenue collection arrangements (through the regulating jurisdiction) have continued. However, online wagering can, of course, be conducted by people located in one jurisdiction using a provider located in (and regulated by) another jurisdiction. Had online wagering providers located themselves around Australia roughly in proportion to where potential online wagerers are located (i.e. approximately according to population density) no serious distortions would probably have arisen. However, because the majority of online wagering providers are now located in the Territory, the Territory (accounting for about 1% of Australia's population and therefore accounting for probably about 1% of Australia's online gambling) is now administering the government gambling revenue collection for about 35-40% of all Australian online gambling.

This imbalance may raise a number of issues with other jurisdictions. Indeed, South Australia has proposed a change in the approach to legislation for taxing online wagering, namely a move to taxing based on the jurisdiction of the wagerer rather than the jurisdiction regulating the gambling provider (ABC News 2016, Koutsantonis 2016, Ogle 2016). There are three related but somewhat different issues that this anomaly might raise in another jurisdiction. These include:

- Loss of potential government revenue (i.e. the other jurisdiction would have collected the gambling taxes had the online wagering been undertaken through a provider based in and or regulated (and taxed) from their jurisdiction.
- The potential tax-gain to government revenue might have been greater than that currently collected by the Territory, given the relatively small effective taxation rate the Territory currently applies to online providers (racing and sports betting industries).
- There are currently (unfunded) economic and social costs among the population of their jurisdiction arising from the gambling related harm that will inevitably be associated with Territory-based online gambling. The current situation may be viewed as a section of the Territory's gambling industry largely exporting the associated gambling harm (and the associated costs) to other jurisdictions, but without providing compensation.



It seems likely that these cross-border matters will become more prominent as the domination of the Territory's online gambling industry grows.

4.6 What is an appropriate gambling taxation rate for the NT?

The very large differences in the effective government taxation and player loss rates between, on the one hand, the Territory and on the other, other Australian jurisdictions with respect to racing and sports betting raises the question of what should taxation and player loss rates be or better still what should be the process for determining these.

Bearing in mind that player loss rates are also provider gross profit rates, consideration of what are appropriate player loss rates clearly needs to take into account the cost to the provider of making the gambling services available which will include consideration of any government taxation/licensing costs. Other than these factors, it seems that market competition between providers, supported by regulation, should be a major determinant of player loss and government taxation rates. Whether this regulation should be the same across jurisdictions is an important question but, again, beyond study.

Both the Australian Department of Treasury (2009) and the PC report (Productivity Commission 2010a) noted that the rationale that leads to remarkably different taxation rates for different types of gambling activities is unclear. Indeed, to the current authors the arguments for a common flat taxation rate across all gambling activities and all jurisdictions is compelling. As is the case for a common 'after costs' player loss rate across all gambling activities and in all jurisdictions.

However, it is not the purpose of this study to propose appropriate taxation rates. Nevertheless, it should be noted that if online gambling providers are to be licensed for operation without a 'turnover tax' then a fixed fee approach to licensing inevitably results in effective taxation rates, which track inversely with turnover. This appears to be quite the opposite of what might be considered good practice. An alternative licensing approach might be auctioning gambling licenses. Other options include adopting 'guideline' taxation rates (or even a guideline taxation amount) and variable annual license fees (based on estimated turnover from previous year) in order to achieve close to a government determined target taxation rate.

Ogle (2016) gives a useful account of the rationale for taxing gambling at more than the usual business and consumption tax rates, which should be actively considered when taxation rates are reviewed. Ogle (2016) proposes four rationales for taxing gambling by more than the usual business and consumption taxation rates:

- Taxing extra-ordinary profits derived from regulation of the market
- Paying for the costs caused by gambling
- Sending a price signal to discourage gambling
- Raising revenue for government services

While it is beyond the scope of this study to consider appropriate gambling taxation arrangements in detail, it seems highly appropriate that the Territory's gambling taxation/licensing arrangements should be reviewed and carefully considered to assess the extent to which they satisfy the criteria.



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Appendix I

Territory government revenue from sports betting is recorded in the AGSD as being very low up to 2008/09 and as zero thereafter. Explanatory notes indicate that the post 2010 'zeros' are an artefact of the nature of the Territory government's licensing approach to determining revenue due from online wagering, and that all such revenue is arbitrarily recorded as derived from racing. For this reason, it may be more correct to consider only Territory government revenue from the combined racing and sports betting industries. This Appendix presents tabulations and graphs equivalent to those in the main body of the report which present results separately for racing and for sports betting.

Table 16: Racing and sports betting: turnover, expenditure and government revenue for NT and Australia, 2014/15

Total Racing and Sports betting	NT (\$ millions)	Australia (\$ millions)	NT as % of Australia
Turnover	9,734.30	24,792.61	39.26
Expenditure	937.60	3,629.32	25.83
Government revenue	10.00	252.39	3.96

Table 17: Racing and sports betting: player loss rate and government tax rate for NT and Australia, 2014/15

Total Racing and Sports betting	NT (%)	Australia (%)	NT (%) to Australia (%)
Player loss rate	9.63	14.64	65.80
Government tax rate	1.07	6.95	15.34

Figure 29: Real gambling turnover by racing and sports betting and gaming for NT, 2000/01 to 2014/15

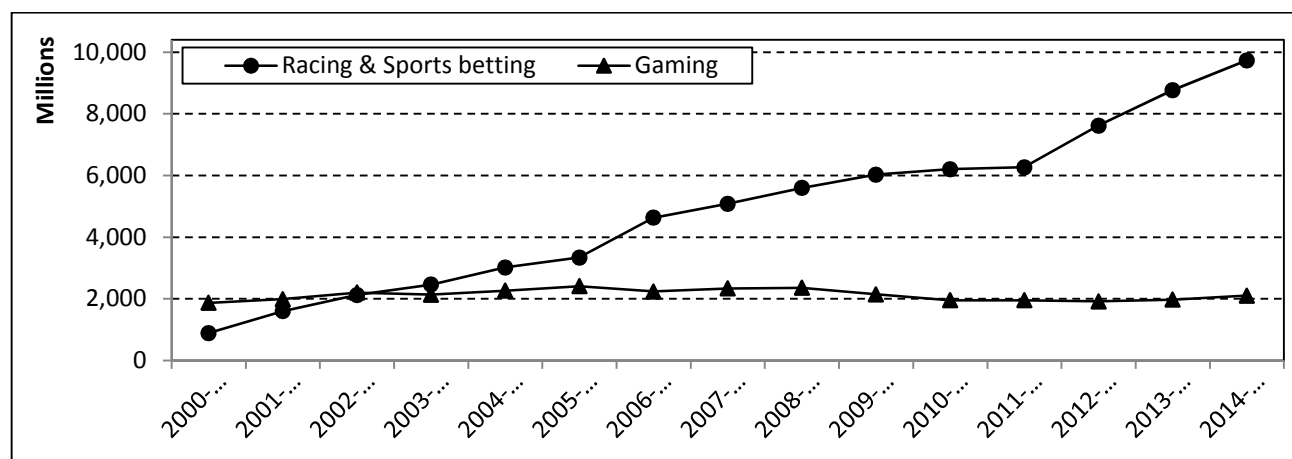




Figure 30: Real gambling expenditure by racing and sports betting, and gaming for NT, 2000/01 to 2014/15

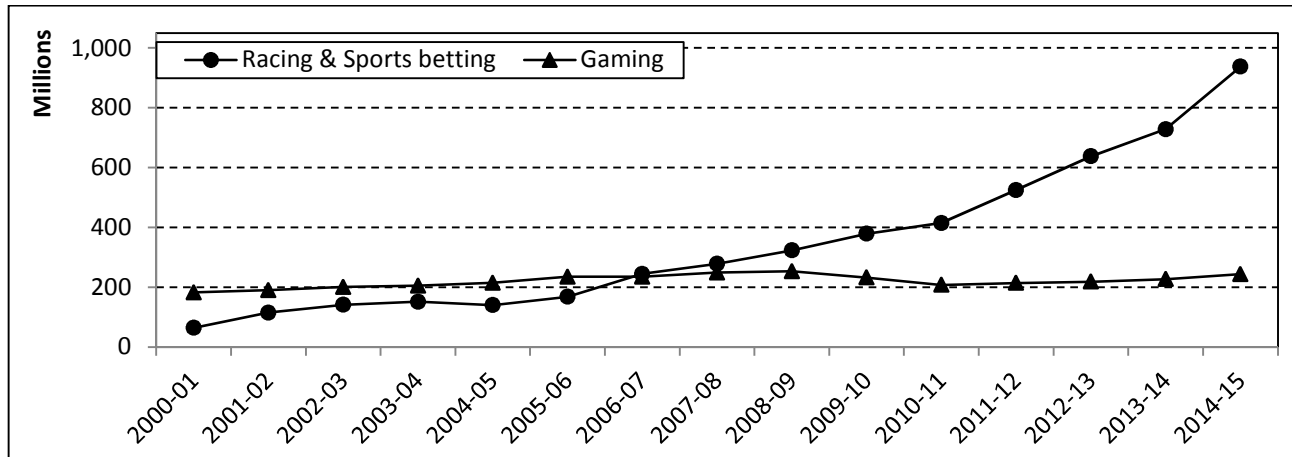


Figure 31: Real gambling government revenue by racing and sports betting, and gaming for NT, 2000/01 to 2014/15

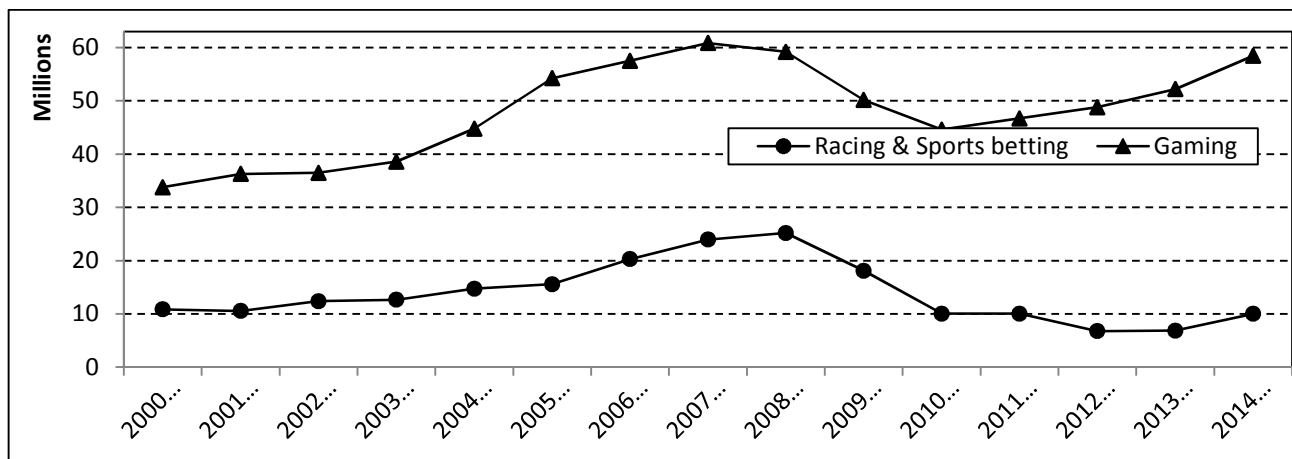
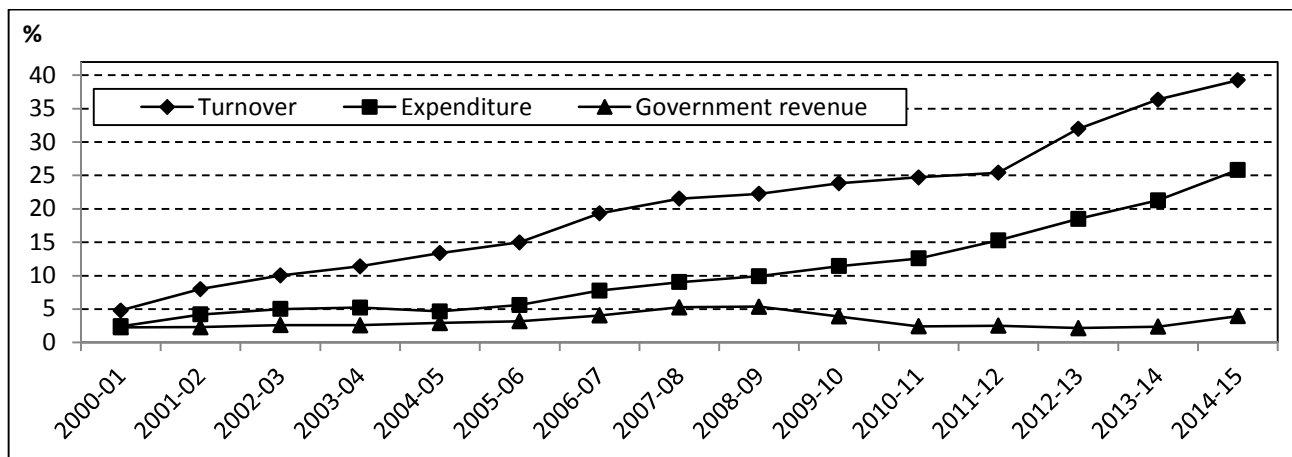


Figure 32: Real racing and sports betting: turnover, expenditure and government revenue for NT as % of Australia, 2000/01 to 2014/15





After Marina Strocchi

Figure 33: Real gambling turnover by racing and sports betting, and gaming for NT as % of Australia, 2000/01 to 2014/15

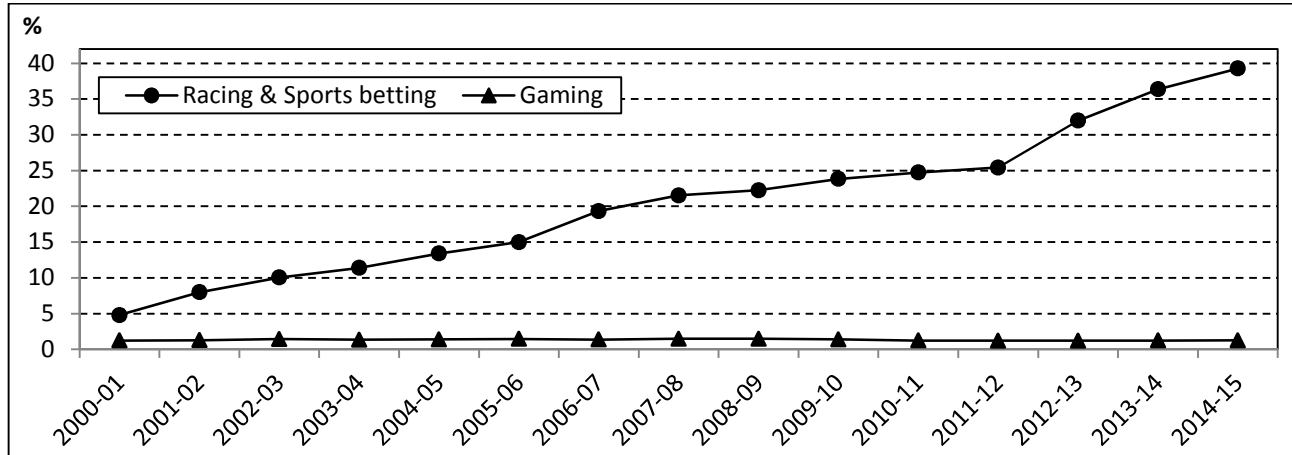


Figure 34: Real gambling expenditure by racing and sports betting, and gaming for NT as % of Australia, 2000/01 to 2014/15

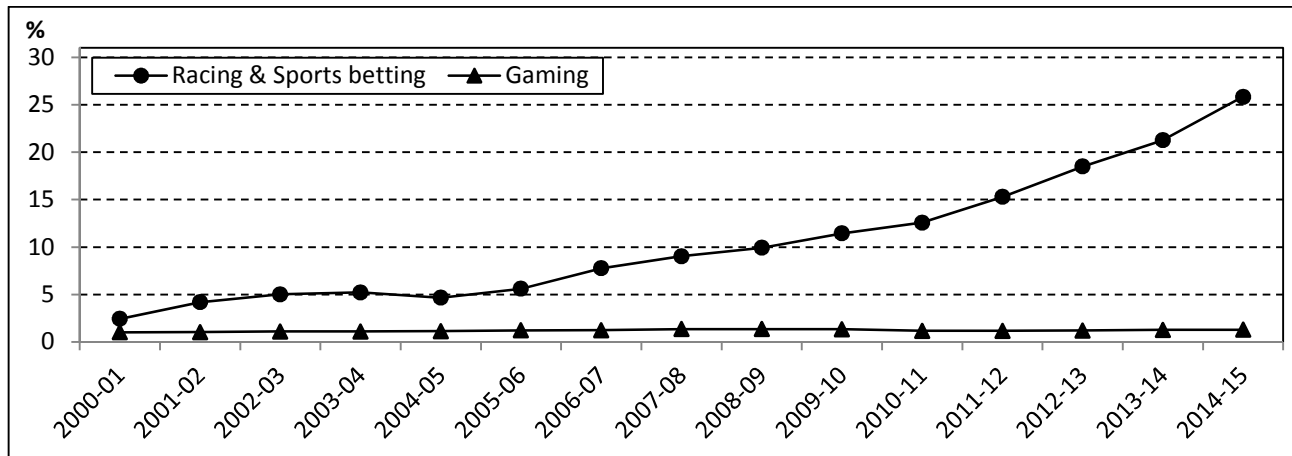


Figure 35: Real gambling government revenue by racing and sports betting, and gaming for NT as % of Australia, 2000/01 to 2014/15

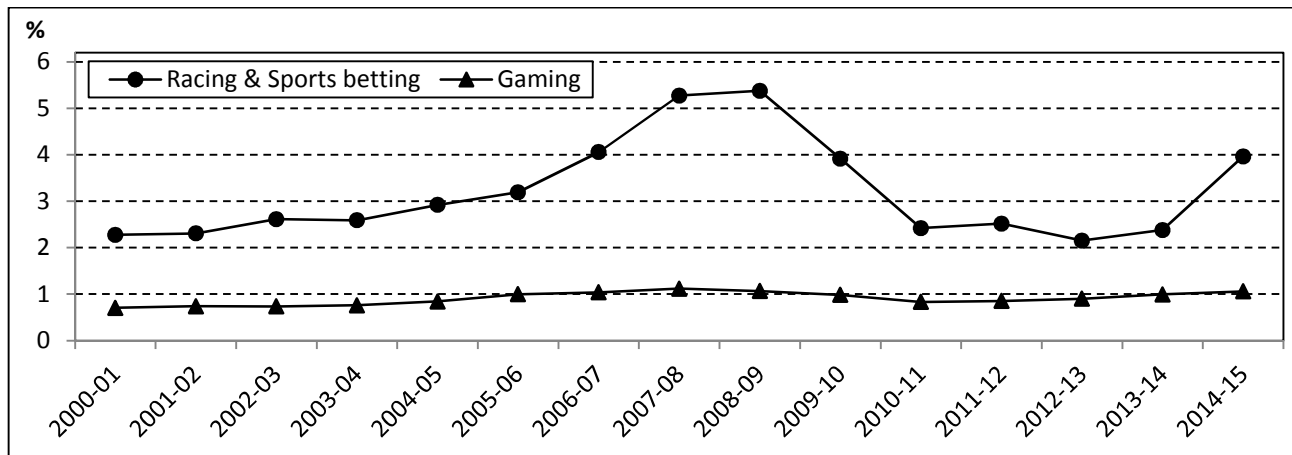




Figure 36: Racing and sports betting: player loss rate and government tax rate for NT and Australia, 2000/01 to 2014/15

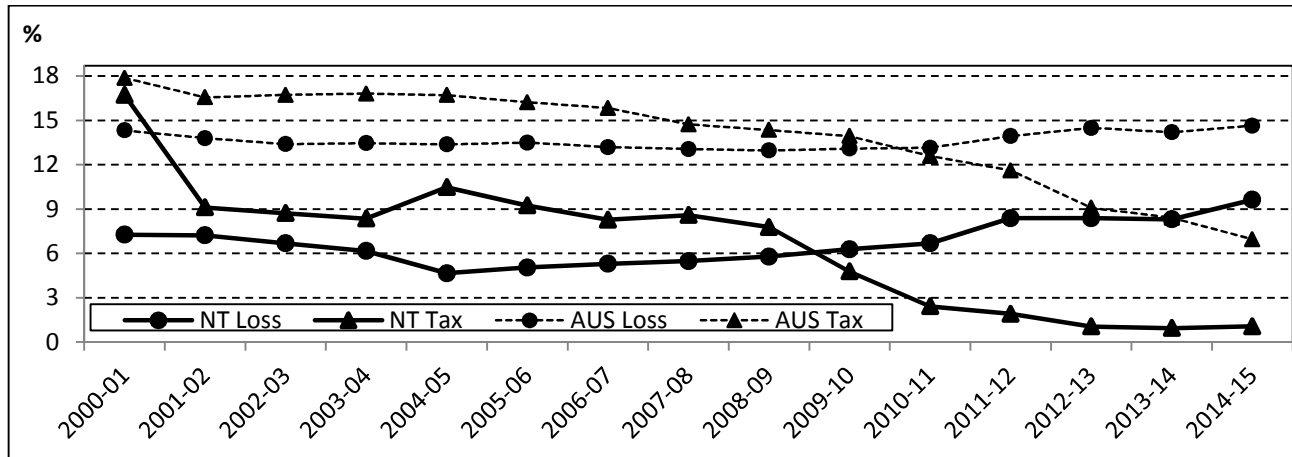


Figure 37: Player loss rate for NT as % of Australian rate by racing and sports betting, and gaming, 2000/01 to 2014/15

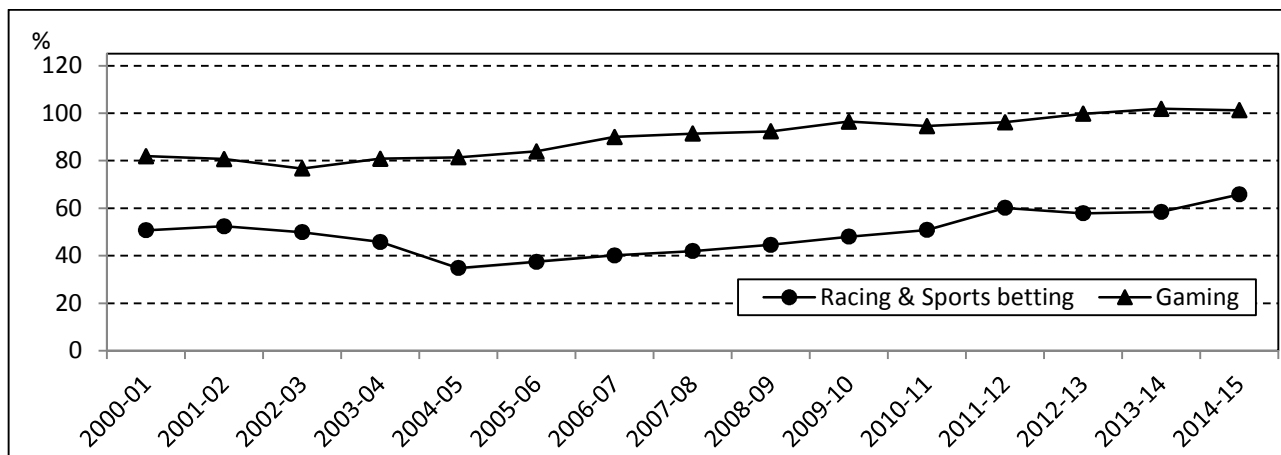


Figure 38: Government tax rate for NT as % of Australian rate by racing and sports betting and gaming, 2000/01 to 2014/15

