Greyhound Racing NSW

Economic effects of fiscal support for the NSW Greyhound racing industry

Modelling results

pwc

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Introduction

1

1.1 Background

The NSW Legislative Council Select Committee on Greyhound Racing in New South Wales is examining the possible effects of financial assistance for the greyhound racing, and has proposed five alternative scenarios for this assistance. NSW Treasury has agreed to procure a Consultant to estimate the economic effects of these scenarios.

Under the terms of the racing industry's Inter-Code Agreement (ICA), thoroughbreds receive around 70% of TAB racing revenue, trots around 17% and greyhounds around 13%. The greyhounds contend that they generate around 20% of the TAB revenue and are disadvantaged by the ICA. They estimate that they would derive around $15 million per year if the ICA were based on market share (and $154 million since the agreement was established in 1997 for a 99 year term).

1 Greyhounds Australasia (www.galtd.org.au)
2 Greyhound Racing in NSW: First Report

1.2 Scope

PwC was commissioned to explore and understand economic effects of various forms of financial support for the NSW greyhound racing industry. PwC used a four stage approach to undertake the economic analysis

1. Scope:

Before commencing the engagement, PwC agreed with the NSW Treasury that we exclude Scenario A from our analysis and instead focus resources on the remaining scenarios. This is because there are legal complications that would make Scenario A unlikely in the short term, and a transfer between codes would not represent a modelling shock that could be explored within our proposed modelling framework. As such, it would likely yield little value and would require a separate analysis within the context of broader reforms to the racing industry as a whole.

2. Literature review and data review:

PwC undertook a review of the literature and data available, as well as previous work undertaken for the Department of Premier and Cabinet and the Office of Liquor, Gaming and Racing (OLGR). The results of the review informed the structure of, and provided inputs to the modelling.

3. Model the economic impact:

Using the inputs from stage 2, we have undertaken an economic impact analyses using the Monash Multiregional Forecasting (MMRF) Computable General Equilibrium (CGE) model.

1.2 Scope cont.

4. Reporting:

In addition to this report, we have prepared an excel output of the results detailing the modelling results. Both this report and the excel output explain the model inputs, modelling approach and how the baseline estimates were calculated. This report details the following impacts for each of the four scenarios.

- NSW Government tax revenue
- Funding received by the Greyhound Racing Association
- Funding received by the thoroughbred and trots racing associations
- Employment in the racing industry
- Employment in other sectors of the NSW economy
- Value of production of the NSW racing sector
- Gross State Product
- Amounts wagered on NSW greyhound racing
- Amounts wagered on other forms of NSW racing.

1.3 Context: Racing Distribution Agreement

The distribution of TAB funds is set out in the Inter-Code agreement. Under the Inter-code agreement, TAB funding is distributed to the codes on fixed percentages of:

- 70% to thoroughbreds
- 15% to harness
- 13% to greyhounds.

The TAB distributions make up the largest source of revenue for the NSW racing industry, with the greyhound industry being the most reliant on the TAB distributions of the three codes. The diagram below outlines the breakdown of funding from TAB to the racing codes, and the distribution of funding by each of the racing codes.
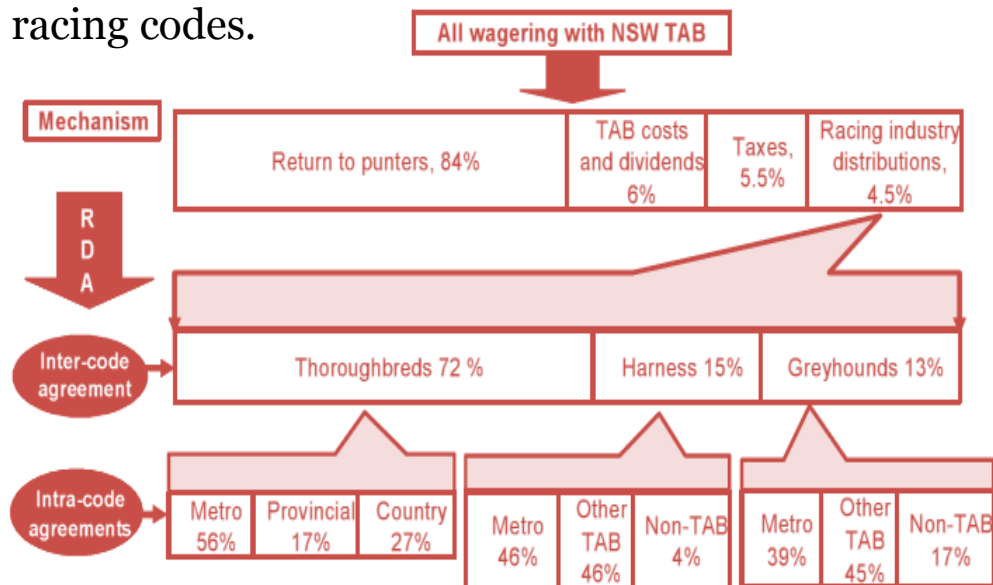
Source: Cameron Review Issues Paper, 2008

1.4 Limitations

To undertake the scope of work, PwC has used an economy-wide modelling approach to capture the resource allocation and opportunity cost of government expenditure on different activities, nevertheless, some limitations remain:

- The economic impact modelling does not account for social costs or impact s related to gambling

- The modelling does not explore the relative impact or provide alternative forms of industry assistance (e.g. grants)

- Modelling does not explore the relative efficiency of distributional mechanisms within the industry (i.e. distributions agreements, profit sharing arrangements, etc.)
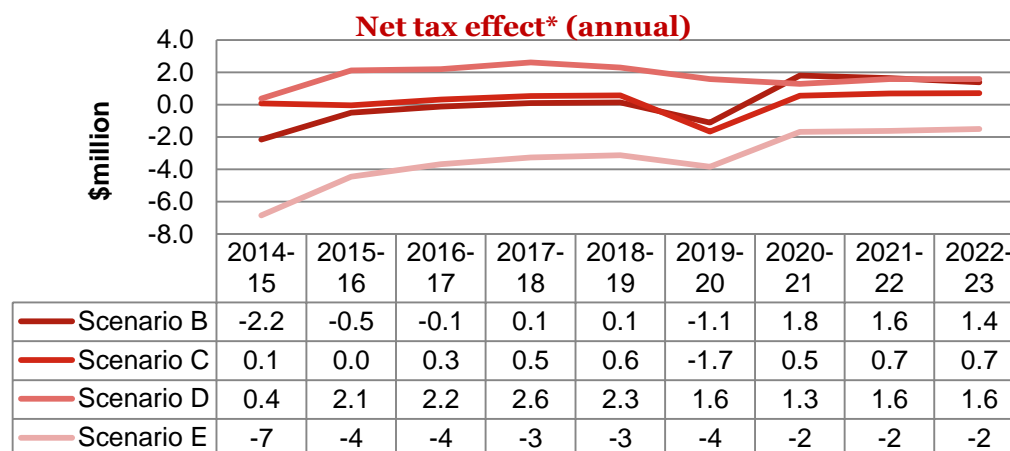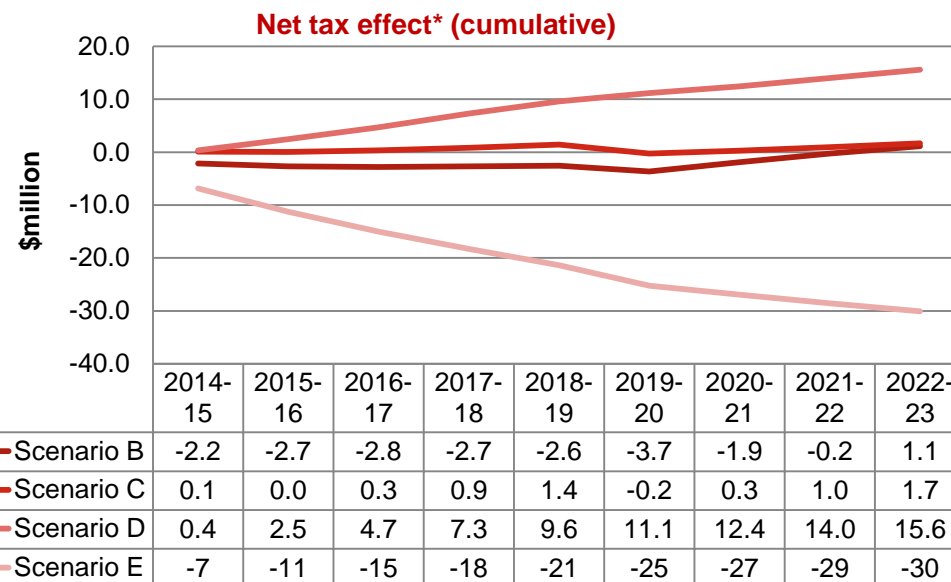
Key Findings

2

Tax revenue effects

Net tax effects (NSW and Commonwealth taxes)

The modelling results highlight the opportunity cost of fiscal support through funding and taxing racing codes by different mechanisms on total taxation revenue (Commonwealth and NSW) and the Australian and the NSW economies.

Since various fiscal support measures are relatively small compared with the size of the NSW or Australian economy, the expected impacts are also relatively small.

❑ From the government taxation perspective Scenario E, aligning the wagering tax rate with Vic rate is expensive after accounting for economy-wide impacts.

❑ The net impact of fiscal support measures on total taxation NSW and Commonwealth tax revenue) range between $2 million and -$30 million.
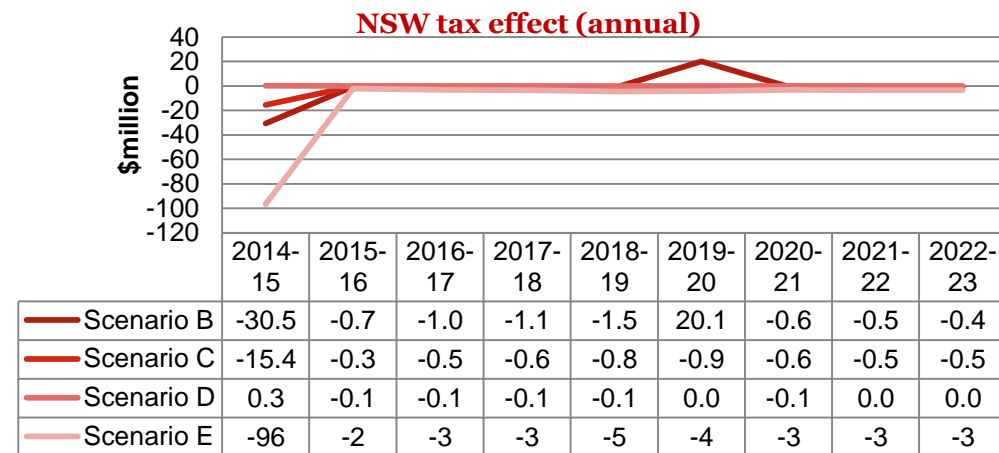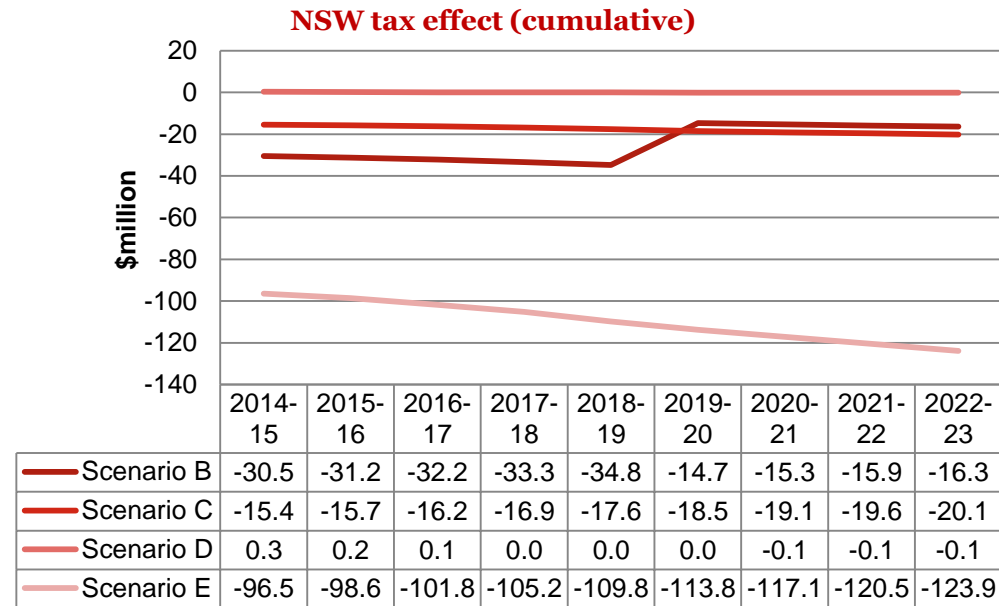
Net tax effect* (cumulative)

$million

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Scenario B	-2.2	-2.7	-2.8	-2.7	-2.6	-3.7	-1.9	-0.2	1.1
Scenario C	0.1	0.0	0.3	0.9	1.4	-0.2	0.3	1.0	1.7
Scenario D	0.4	2.5	4.7	7.3	9.6	11.1	12.4	14.0	15.6
Scenario E	-7	-11	-15	-18	-21	-25	-27	-29	-30

Net tax effect* (annual)

$million

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Scenario B	-2.2	-0.5	-0.1	0.1	0.1	-1.1	1.8	1.6	1.4
Scenario C	0.1	0.0	0.3	0.5	0.6	-1.7	0.5	0.7	0.7
Scenario D	0.4	2.1	2.2	2.6	2.3	1.6	1.3	1.6	1.6
Scenario E	-7	-4	-4	-3	-3	-4	-2	-2	-2

Source: PwC estimates based on MMRF model.
* Net tax includes both commonwealth and state taxes

Tax revenue effects

NSW net tax revenue effects

❑ State government collects taxes on gambling, insurance, property and payroll taxes. Economic activity induced by various fiscal incentives to the racing industry affect the NSW tax collections. The direct fiscal support itself represents the major net revenue loss for the government.

❑ Although reduction in tax rate is good for the sector, from the NSW government taxation perspective Scenario E - aligning wagering tax rate with Vic rate is expensive in the first year after accounting for economy-wide impacts.

❑ Annual effects beyond the first year of fiscal support measures are minor, less than $5 million (apart from Scenario B)

NSW tax effect (cumulative)

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Scenario B	-30.5	-31.2	-32.2	-33.3	-34.8	-14.7	-15.3	-15.9	-16.3
Scenario C	-15.4	-15.7	-16.2	-16.9	-17.6	-18.5	-19.1	-19.6	-20.1
Scenario D	0.3	0.2	0.1	0.0	0.0	0.0	-0.1	-0.1	-0.1
Scenario E	-96.5	-98.6	-101.8	-105.2	-109.8	-113.8	-117.1	-120.5	-123.9

NSW tax effect (annual)

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Scenario B	-30.5	-0.7	-1.0	-1.1	-1.5	20.1	-0.6	-0.5	-0.4
Scenario C	-15.4	-0.3	-0.5	-0.6	-0.8	-0.9	-0.6	-0.5	-0.5
Scenario D	0.3	-0.1	-0.1	-0.1	-0.1	0.0	-0.1	0.0	0.0
Scenario E	-96	-2	-3	-3	-5	-4	-3	-3	-3

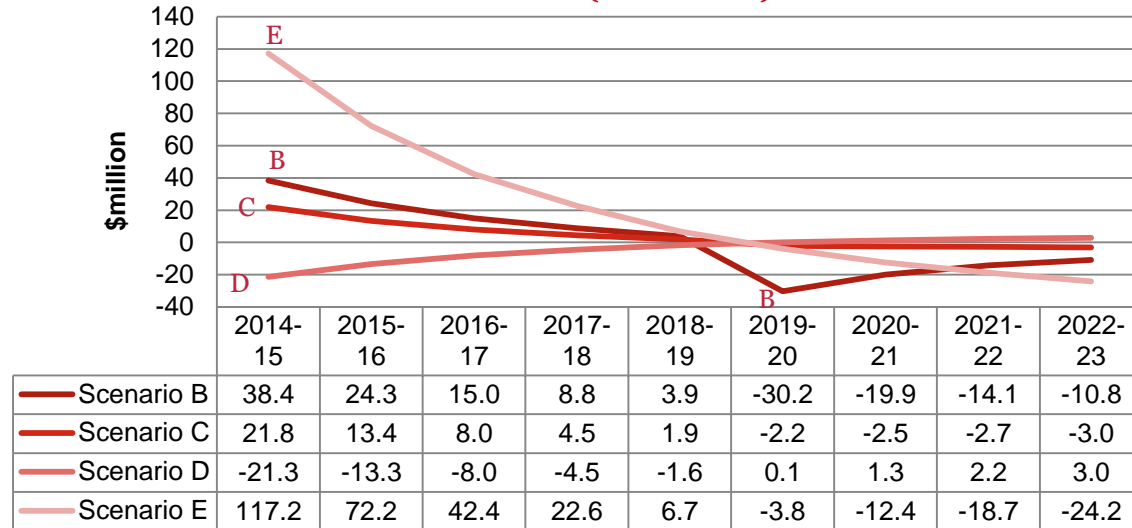*Source: PwC estimates based on MMRF model.*
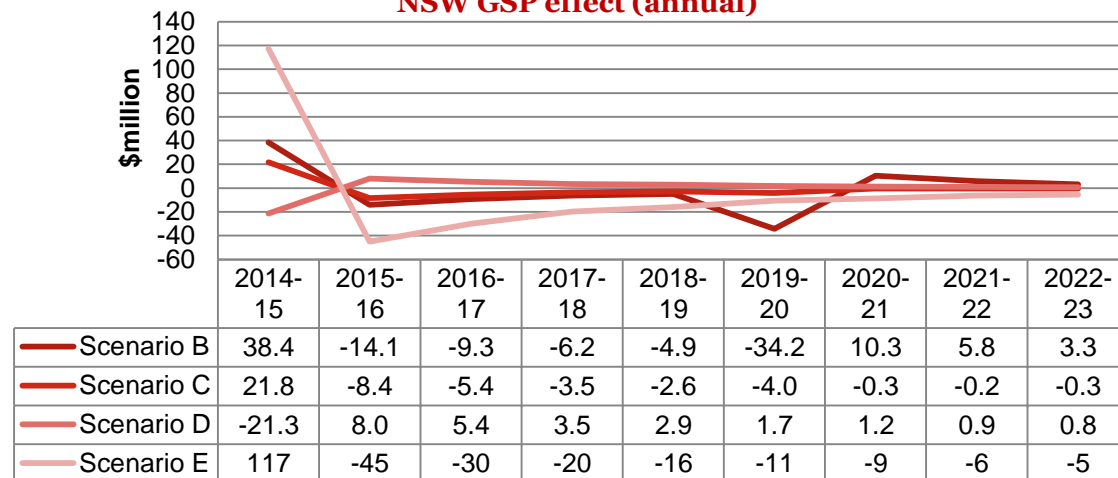
Effect on NSW Gross State Product

Key points

❑ There is an initial spike in economic growth in most of the fiscal support measure scenarios. This because factor market takes to time to adjust to the new situation. After the initial upward spike, economic growth falls in each scenario. As the fiscal support measures are offset by lower government expenditure in other parts of the economy.

❑ Racing industry is a consumptive sector of the NSW economy, as such, it doesn't generate any significant productivity benefits to the rest of the economy to lift State output permanently and to offset the impact of the reduction in government expenditure elsewhere in the economy.

NSW GSP effect (cumulative)

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Scenario B	38.4	24.3	15.0	8.8	3.9	-30.2	-19.9	-14.1	-10.8
Scenario C	21.8	13.4	8.0	4.5	1.9	-2.2	-2.5	-2.7	-3.0
Scenario D	-21.3	-13.3	-8.0	-4.5	-1.6	0.1	1.3	2.2	3.0
Scenario E	117.2	72.2	42.4	22.6	6.7	-3.8	-12.4	-18.7	-24.2

NSW GSP effect (annual)

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Scenario B	38.4	-14.1	-9.3	-6.2	-4.9	-34.2	10.3	5.8	3.3
Scenario C	21.8	-8.4	-5.4	-3.5	-2.6	-4.0	-0.3	-0.2	-0.3
Scenario D	-21.3	8.0	5.4	3.5	2.9	1.7	1.2	0.9	0.8
Scenario E	117	-45	-30	-20	-16	-11	-9	-6	-5

Source: PwC estimates based on MMRF model.

Detailed Results

3.1 Scenario B
3.2 Scenario C
3.3 Scenario D
3.4 Scenario E

3

Scenario

Interpretation:
- Greyhound racing's market share in 2014-15 is 19% of total racing revenue
- Applying a differential tax rate of zero percent on greyhound wagering is assumed to reduce tax revenue by 19% of the total. There is no change to the tax rate applying to the proceeds of thoroughbred racing or harness racing. Tax revenue will fall from the forecast $159 million in 2014-15 to $128.8 million.
- The **direct impact** on NSW tax revenue is a reduction of $30.2 million in 2014-15.
- This will increase the RDA pool by $30.2 million per year, and all of this increase is passed to the Greyhound Racing Association.
- The amounts distributed to thoroughbreds and harness racing will not change.
- This arrangement will continue for five years.
- PwC assumes the growth of tax revenue and greyhound racing's market share between 2014-15 and 2022-23. The amount of additional funding provided to the greyhound racing is **total of around $154 million** over the course of five years.

B

Scenario

Interpretation (contd..):

At the end of these five years (i.e. beginning in 2019-20) the following steps should occur:

A. What is the total pool available under the RDA?
B. Greyhound Racing Association's share of this under the current Intercode Agreement is 13% x A.
C. What is Greyhound's market share?
D. How much money would Greyhounds receive if the intercode reflected actual market share? That is: C x A.
E. What is the additional funding to be provided to Greyhounds? i.e. D – B.
F. What is the total expected tax revenue with no policy changes
G. What is the greyhound racing industry's share of this expected tax revenue? C x F
H. Lower the tax rate applying to NSW greyhound racing by an amount that reduces revenue by E. There is no change to the tax rate applying to thoroughbred or harness racing. By what percentage should the tax rate on greyhound racing be reduced? E/G.
I. Permit the Greyhounds to receive all of the additional amount E that is now available to the RDA pool.
J. The funds received by thoroughbreds and harness racing are unchanged.

Performing these calculations in 2019-20 would give the following:

A. = $263 million
B. = $34.2 million
C. = 19%
D. = 19% x $263 million = $50 million
E. = 50 – 34.2 = $15.8 million
F. = $162.7million
G. = $30.9 million
H. = 15.8/30.9 = 51% reduction in the tax rate applying to wagers on greyhound racing.
I. Using 2019-20 data, the Government's direct revenue loss would be $15.8 million and Greyhound Racing would receive an extra $15.8 million.

3.2 Scenario B

Effect on NSW Government tax revenue

The Greyhound industry receives $154 million of funding over five years ($30.8 million each year) directly from the NSW Government. This will be in addition to the TAB distributions that would have been received by the Greyhound equal to the actual percentage contribution of wagering. After the five year period, the industry receives $15 million of funding.

NSW direct fiscal effect, annual

NSW direct fiscal effect, cumulative

Source: NSW Treasury
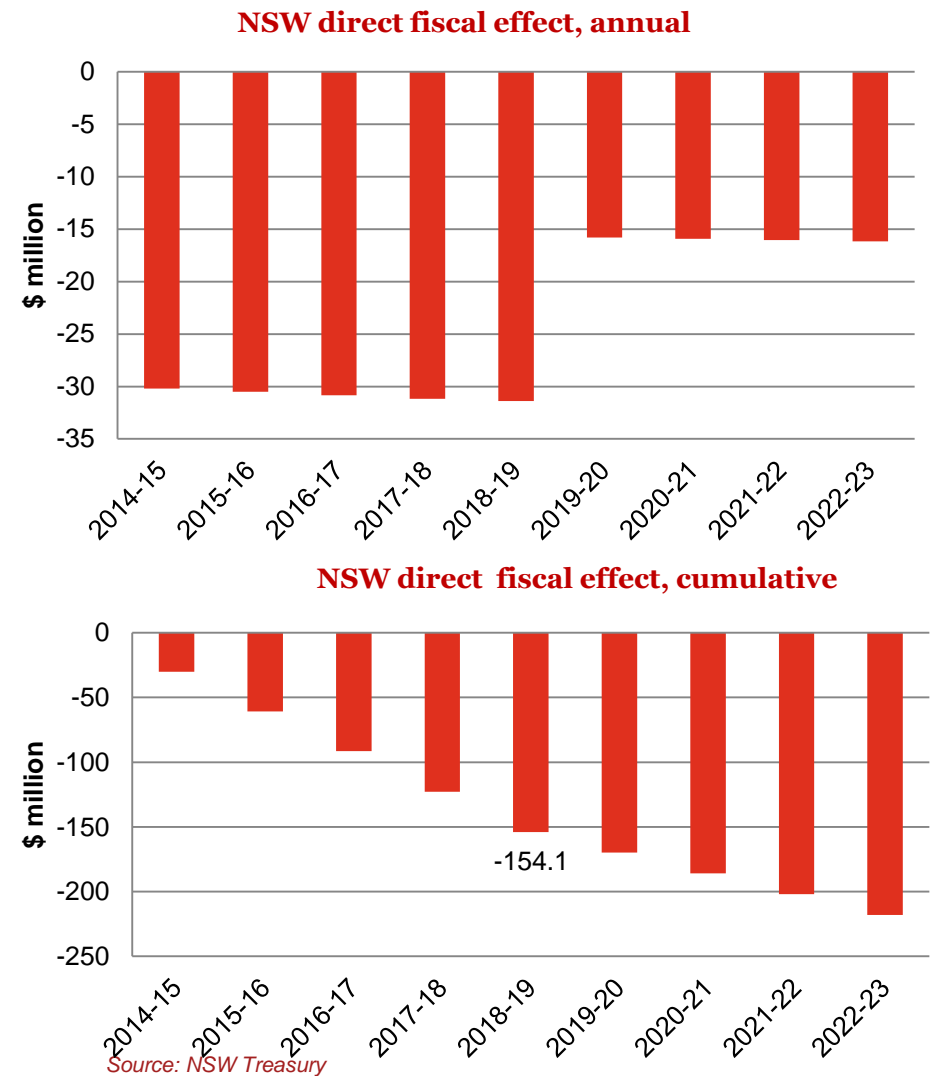
3.2 Scenario B cont.

Effect on NSW Gross State Product (GSP)

Increased funding into the Greyhound industry does not generate any significant productivity benefits to the rest of the economy to lift GSP and offset the impact of the reduction in government expenditure.

As shown in the graph on the right, there is an initial spike in economic growth of 0.008% of GSP (or $38 million) in the first year that the funding is provided to the Greyhound industry. However, economic growth is affected in every year subsequently as the tax reduction is offset by lower government expenditure in other parts of the economy.

The cumulative impacts are positive while annual impacts are negative from second year onwards and subsequently fall through time as negative contribution to growth eat away at the initial spike in economic growth.

NSW GSP effect, cumulative

NSW GSP effect, annual
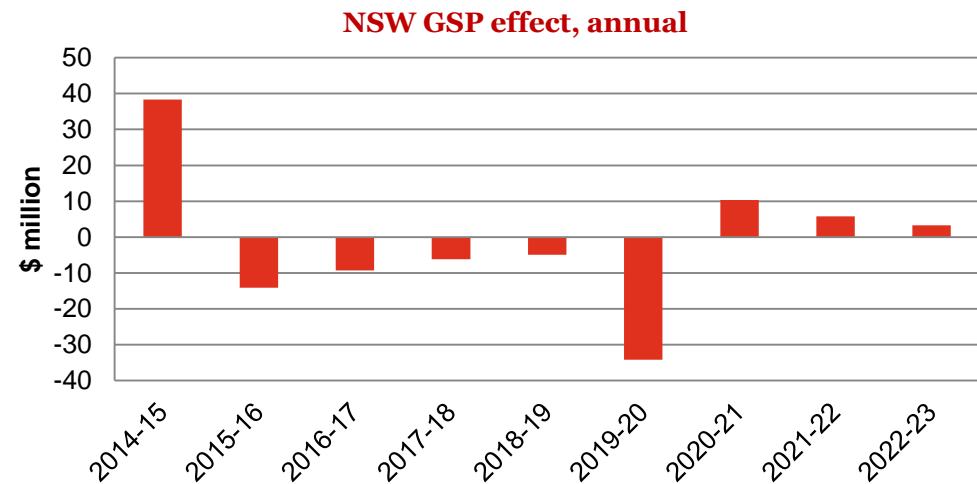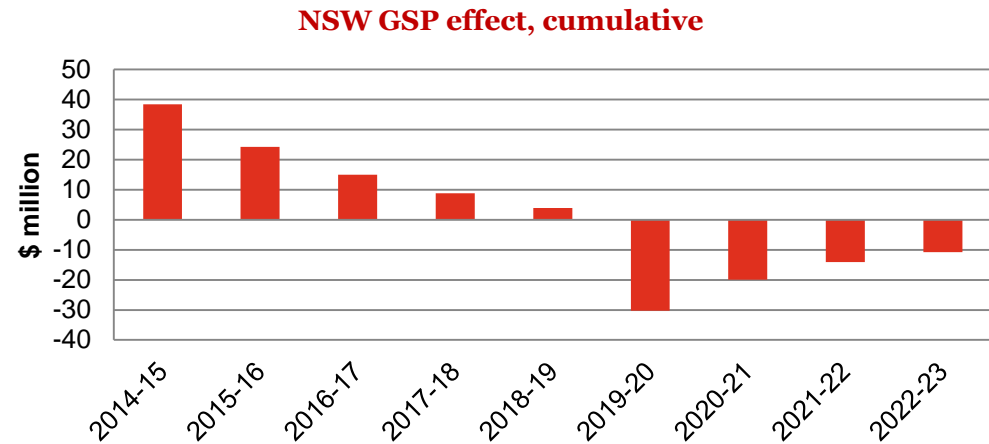
*Source: PwC Estimates based on MMRF model.*

3.2 Scenario B cont.

Funding received by the Greyhound Racing Industry

The Greyhound industry will receive $154 million in funding over a five year period. The funding will be received in the form of a tax concession, with the differential tax rate being dropped to zero per cent on wagering on greyhound races in NSW.

After the five year period, the NSW Government will provide ongoing funding to the Greyhound Racing Association equal to the difference between the current return paid to the industry under the inter-code agreement and what it would be if it were based on market share.

Greyhound funding, annual
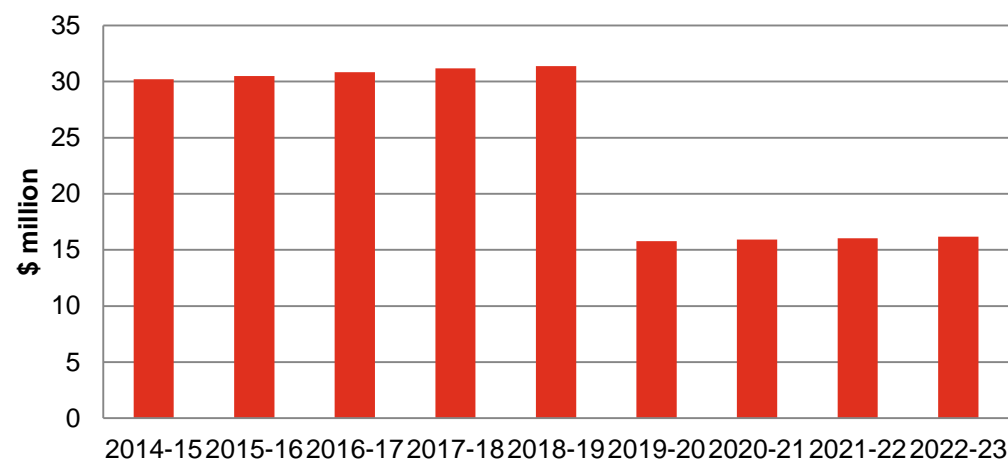
Greyhound funding, cumulative

154.1
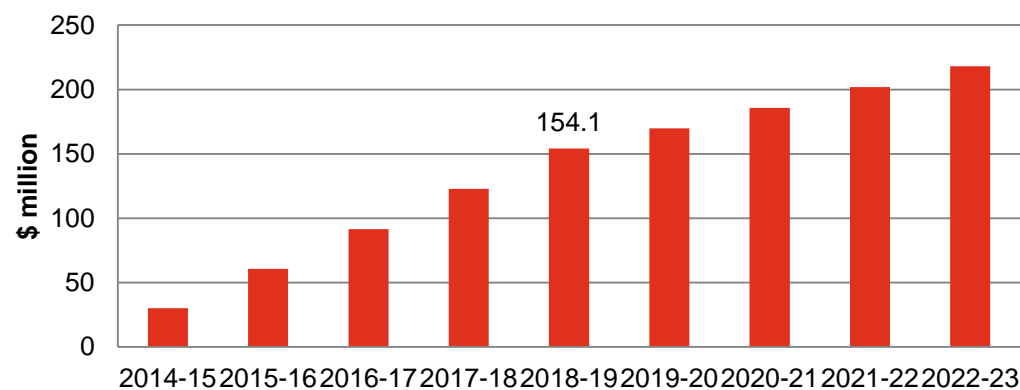
Source: NSW Treasury

Note that an accurate forecast of future TAB distributions can not be made without any historical data[5]. However, based on the data provided by OLGR, PwC has forecasted the tax revenue and RDA pool.

4 Legislative Council Select Committee On Greyhound Racing in NSW: Submission no 380
5 The Racing Distribution Agreement and the Inter-Code Agreement are 'commercial in confidence' documents and not publically available
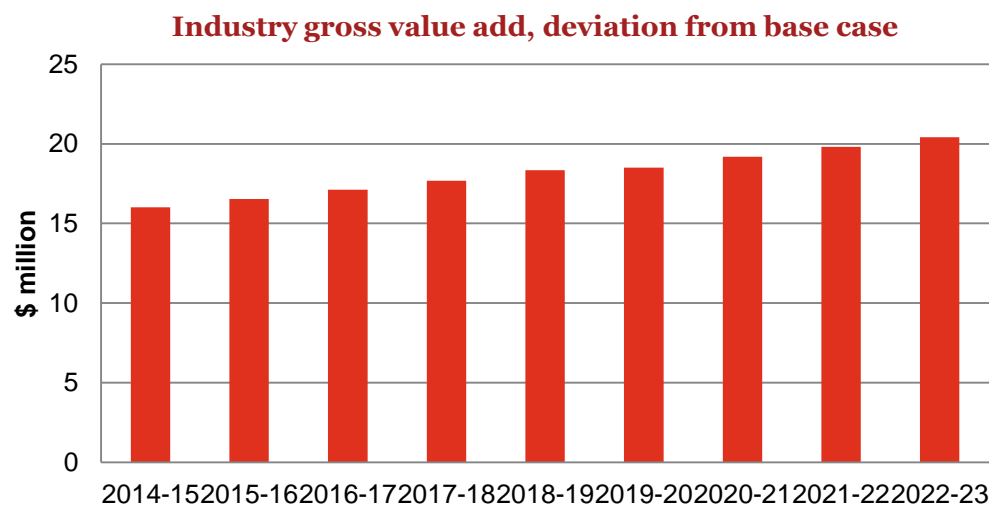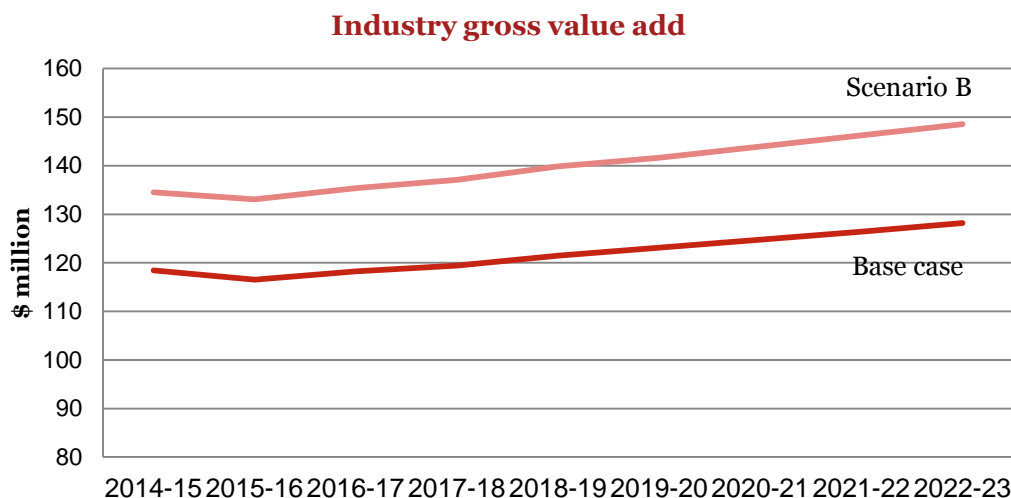
3.2 Scenario B cont.

Industry gross value add of Greyhound racing

Greyhound industry gross value add is just over $100 million in 2012-13, which is equivalent to 0.02% of the NSW economy.

The impact of additional funding to the Greyhound Racing Association increase its contribution to the NSW economy through its employment and gross operating surplus.

Industry gross value add increases by nearly $20 million by 2022-23.

Industry gross value add

Industry gross value add, deviation from base case

Source: PwC estimates based on MMRF model.

3.2 Scenario B cont.

Effect on Greyhound industry employment

As shown in the graph on the right, the increased funding into the Greyhound industry has some impact on employment in the racing industry.

It is estimated that the greyhound industry will be able to employ an additional 500 employees by 2022-23.

Industry employment

Industry employment, deviation from base case
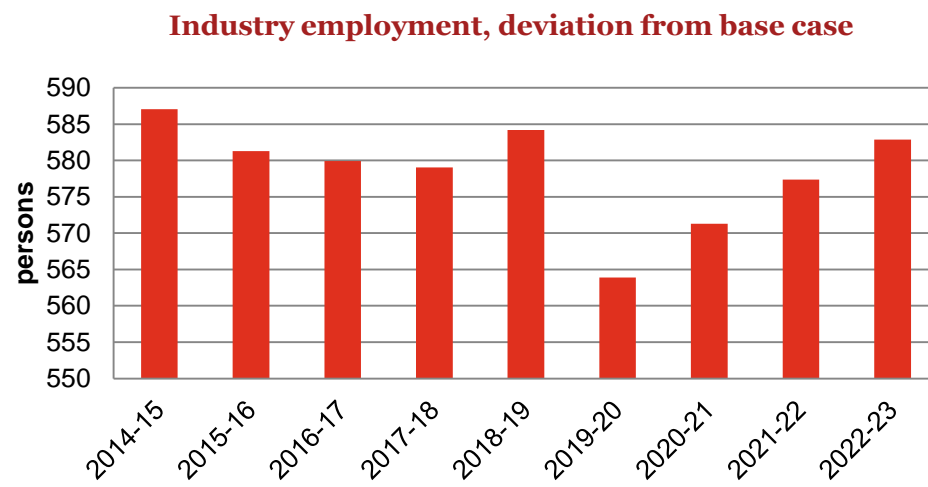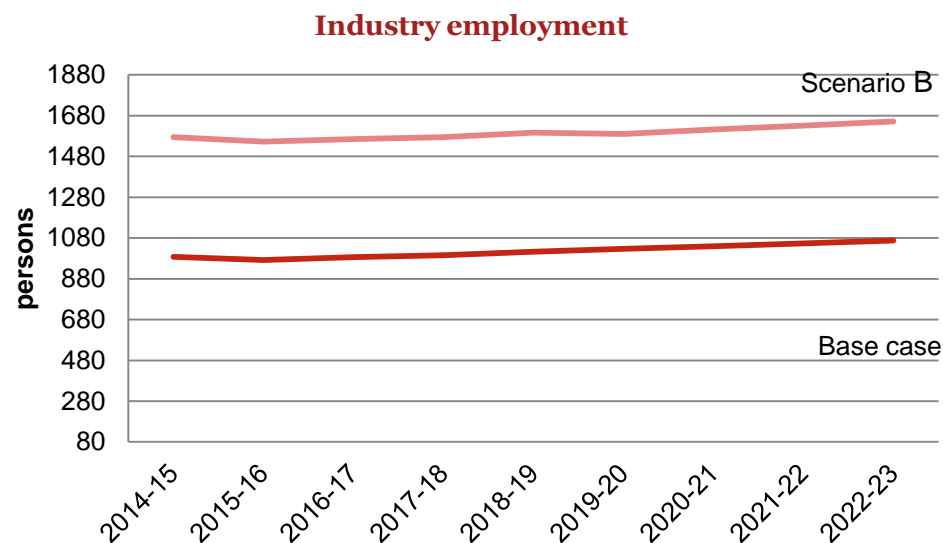
Source: PwC estimates based on MMRF model.

3.2 Scenario B cont.

Effects on amounts wagered in Greyhound racing

There is an increase in the amount wagered on NSW Greyhound racing. The amount wagered on racing increases by over $140 million in the first year of the funding, and continues to increase over the nine year period.

Wagering

Wagering, deviation from base case
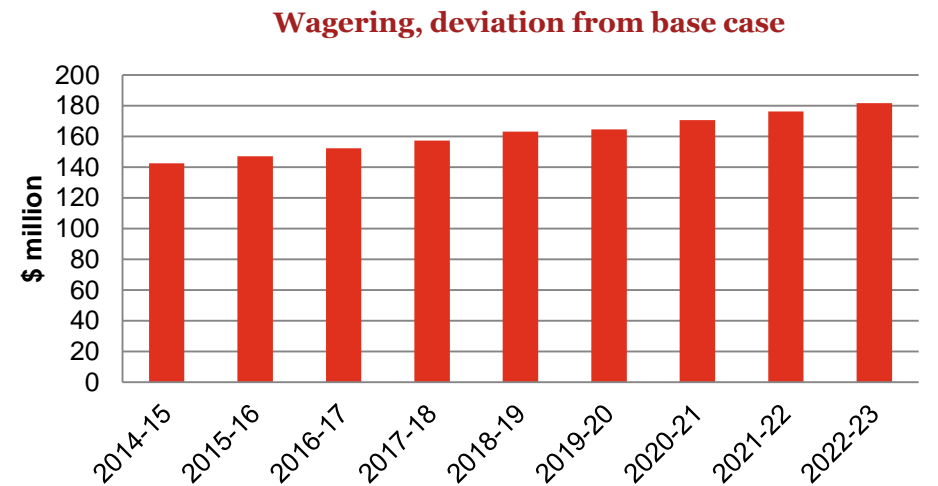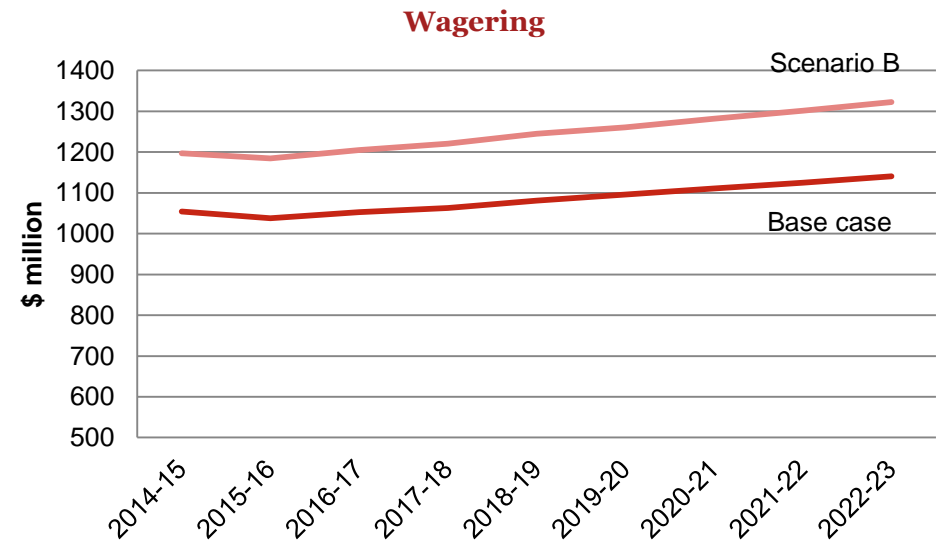
Source: PwC estimates based on MMRF model.

Scenario

That the NSW Government:
- Provide temporary funding to the greyhound industry, via a differential tax basis, of an amount equal to the difference between the current return paid to the industry under the inter-code agreement and what it would be if it was based on market share.
- Amend the inter-code agreement to provide that the returns to each code are in proportion to the percentage of wagering generated by each code.
- Provide Government assistance, on a temporary basis, to the other two racing codes after the inter-code has been amended to replace any lost revenue resulting from the changes to the inter-code

Interpretation:
- Assume that temporary funding is provided for five years.
- Following the logic of Scenario B, in 2014-15 the tax rate applying to greyhound racing would be reduced by half. This would result in a loss of NSW Government revenue of $16 million per year. The extra $16 million funds available to the RDA pool would be entirely allocated to Greyhounds. The funding would grow over time reflecting the growth of the market. This arrangement would continue for five years.
- At the end of five years (i.e. beginning from 2019-20), the intercode agreement would be amended to reflect market shares. PwC forecasts of these shares in 2019-20 will be thoroughbreds 70.7%; greyhounds 18.7%; harness racing 10.6%.
- PwC forecasts the expected tax revenue and RDA pools to 2022-23.
- The Government will provide a direct fiscal grant of $17 million to harness racing to compensate for its lost revenue in 2019-20. Assume that the Government's assistance to harness racing will continue for five years.

C

3.3 Scenario C

Direct effect on NSW Government Tax Revenue

Similar to Scenario B, the NSW Government provides temporary funding to the greyhound industry. In addition, the NSW Government amends the inter-code agreement to ensure that the returns to each code are in proportion to the percentage of wagering generated by each code. The NSW Government provides assistance on a temporary basis to the other two racing codes after the inter-code has been amended to replace any lost revenue. The tables below show the amount of Government funding provided to each of the racing codes based on the market share.

RDA pool distributions based on inter code agreement	2014-15	2015-16	2016-17	2017-18	2018-19	**2019-20**	2020-21	2021-22	2022-23
Thoroughbreds	178	179	180	181	183	**184**	186	187	189
Greyhounds	33	33	33	34	34	**34**	34	35	35
Harness	43	43	44	44	44	**45**	45	45	46
RDA pool distributions based on market shares									
Thoroughbreds	177	179	181	182	184	**186**	188	190	191
Greyhounds	47	47	47	48	49	**49**	50	51	51
Harness	30	29	29	29	28	**28**	28	27	27
Difference									
Thoroughbreds	-1	0	1	1	1	**2**	2	2	3
Greyhounds	14	14	14	14	15	**15**	15	16	16
Harness	-14	-14	-15	-15	-16	**-17**	-18	-18	-19

Source: NSW Treasury and PwC estimates
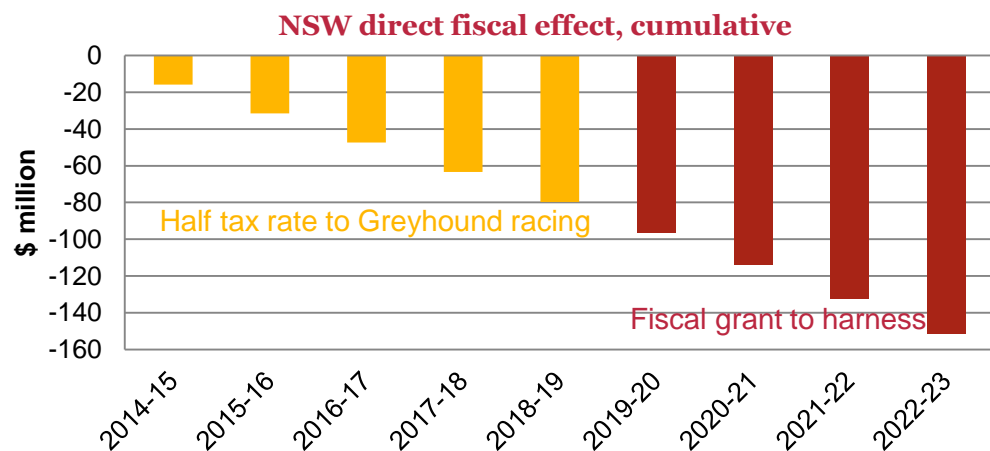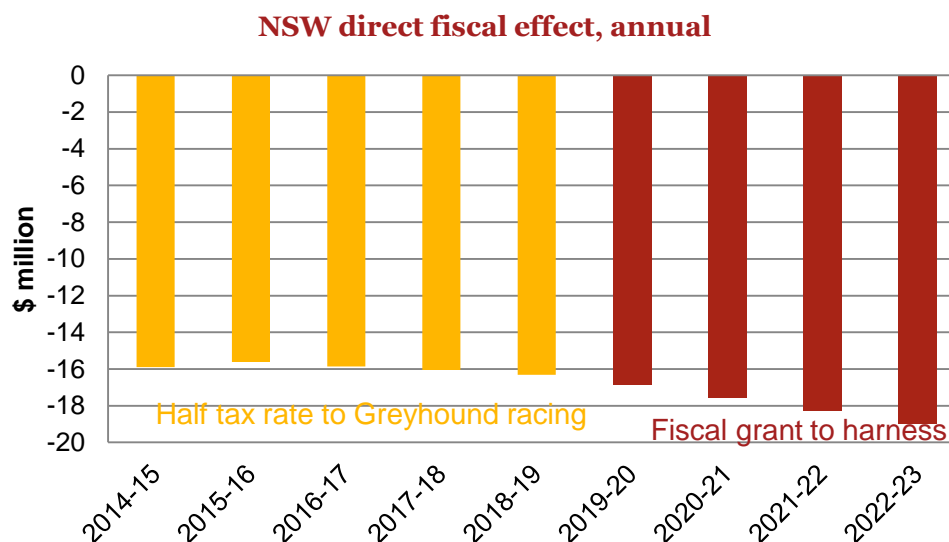
3.3 Scenario C cont.

Effect on NSW Government Tax Revenue

Since the tax rate applying to greyhound racing would be reduced by half, this would result a revenue loss of approximately $16 million per annum per first five years.

At the end of five years (i.e. beginning of 2019-20), the inter code agreement would be amended to reflect market shares. Based on PwC forecasts, in 2019-20, the shares will be:

- 70.7% for thoroughbreds
- 18.7% for greyhounds; and
- 10.6% for harness.

Based on the PwC RDA pools forecasts, the Government will provide a direct fiscal grant of $17 million per annum to harness racing to compensate for its lost revenue., at least for five years. The fiscal cost per annum is approximately $16-20 million.

NSW direct fiscal effect, annual

NSW direct fiscal effect, cumulative

Source: NSW Treasury and PwC estimates based on the MMRF model
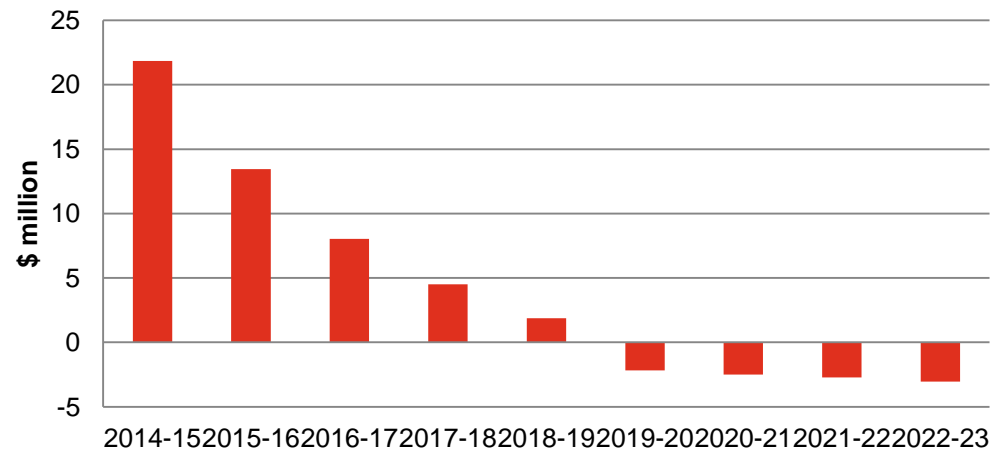
3.3 Scenario C cont.

Gross State Product in scenario C

A $16 million reduction in tax rate has induced a NSW state economy-wide benefit of over $20million in the first year. This is equivalent to a 0.0044% improvement of State GSP.

NSW GSP effect, annual
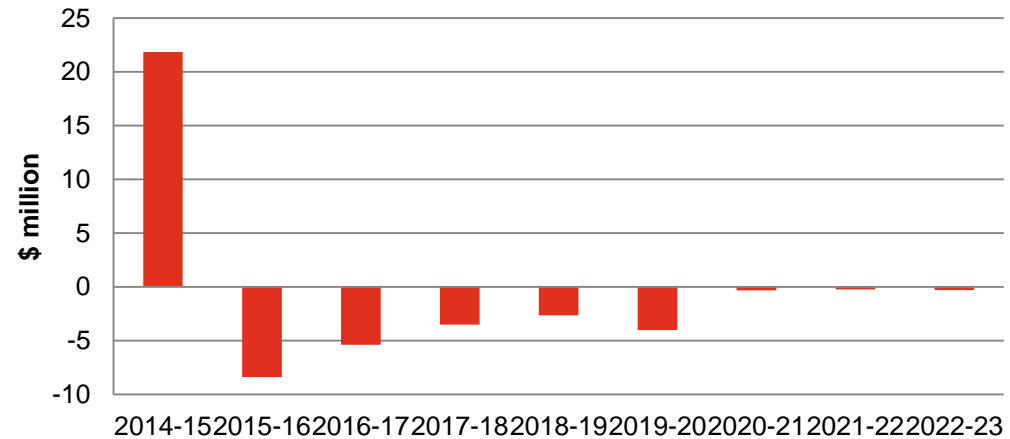
NSW GSP effect, cumulative

Source: PwC estimates based on MMRF model.
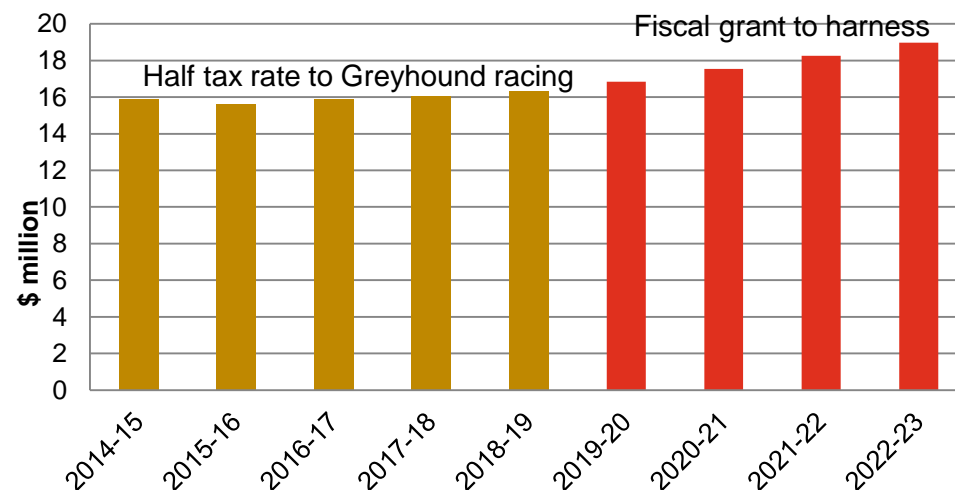
3.3 Scenario C cont.

Funding received by the racing industries

The funding received by the greyhound racing is through reduction in wagering tax by half for first five years (temporary assistance), which is equivalent to $16 million per annum.
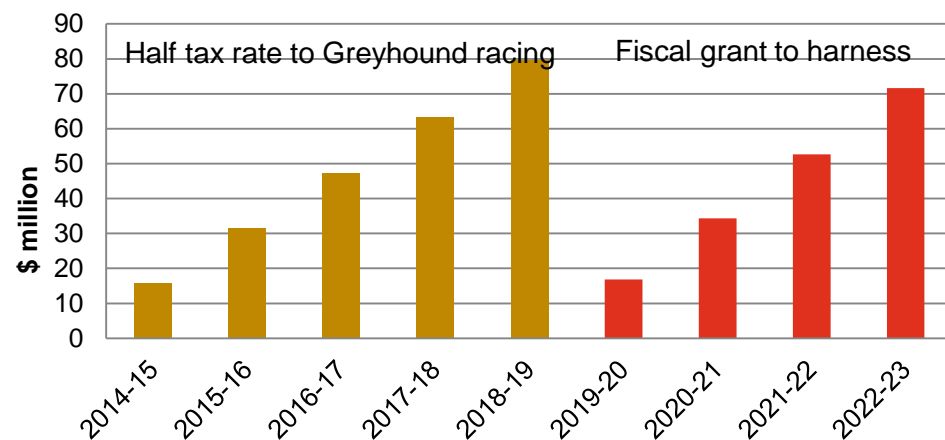
The Government will provide a direct fiscal grant of $17 million to harness from 2019-20 onwards for five years to compensate for harness lost revenue.

Total temporary assistance to Greyhound is $80 million over the five year period.

Fiscal incentives, annual

Fiscal incentives, Cumulative

Source: PwC estimates based on NSW Treasury

3.3 Scenario C cont.

Effect on industry gross value added of the NSW racing industry

As with Scenario B, the impact of the additional funding to racing sector on the industry gross value add is around $4 to $5 million.

Effect on industry gross value add, deviation from base case

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
■ Harness	0	0	0	0	0	1	1	1	1
■ Greyhound	4	4	4	4	4	3	3	3	3
■ Thoroughbred	0	0	0	0	0	1	1	1	1
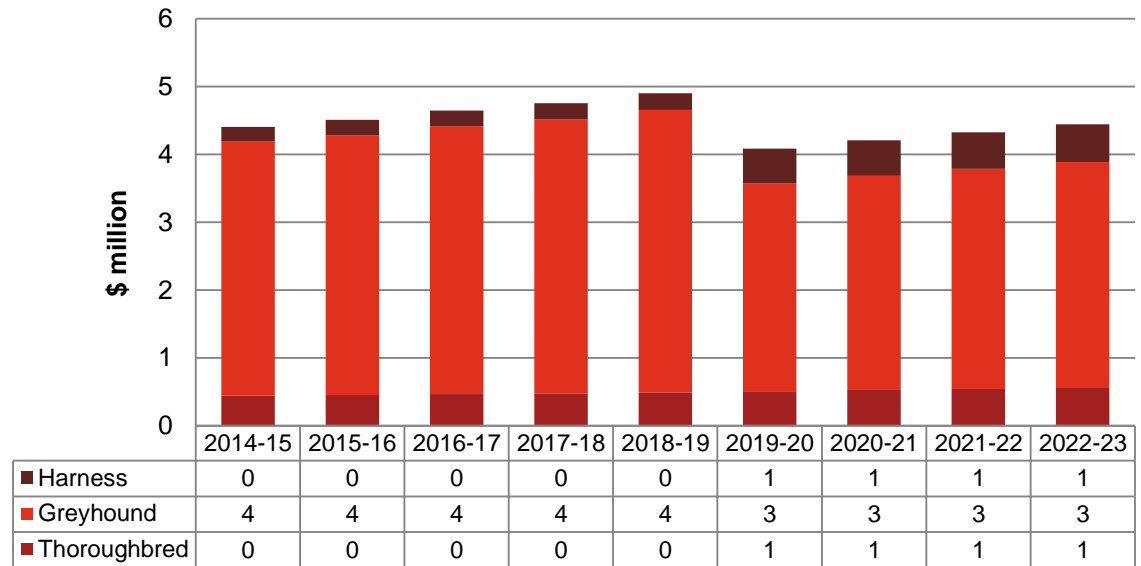
Source: PwC estimates based on MMRF model.

3.3 Scenario C cont.

Effect on the racing industry employment

As evidenced in the graphs on the right, the impact on employment in the racing industry appears positive while receiving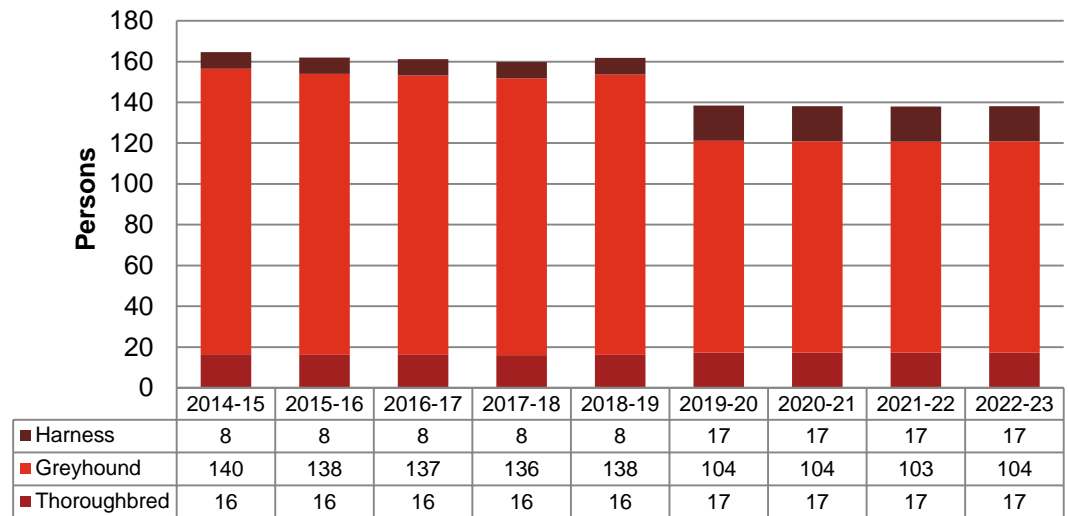 the temporary funding. In Scenario C, where the government provides temporary assistance for first five years would increase the temporary employment by over 140 persons.

Effect on industry employment, deviation from base case

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
■ Harness	8	8	8	8	8	17	17	17	17
■ Greyhound	140	138	137	136	138	104	104	103	104
■ Thoroughbred	16	16	16	16	16	17	17	17	17

Source: PwC estimates based on MMRF Model

Scenario

That the NSW Government amend the Racing Administration Regulation 2012 to remove the race fields levy cap of 1.5 per cent of wagering turnover.

Interpretation:

The race fields levy cap is removed. Only Greyhounds take advantage of the new flexibility. They increase the levy cap by enough to generate an extra $15 million per year, all of which flows to greyhounds. There is no change to the return to punters. There is no change to Betting Tax revenue flowing to the Government.

Find whether the levy is sustainable or whether higher race fields levy would result in a displacement of wagering away from NSW greyhounds to other forms of gambling.

D

3.4 Scenario D

Funding received by the Greyhound industry

The funding received by the GRA is in the form of increased race fields levy by the Greyhound industry The table below outlines the race fields levy that would raise an additional $15 million in funding per year, and the total revenue raised from the levy :

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Levy	3.8%	3.8%	3.8%	3.7%	3.7%	3.7%	3.7%	3.6%	3.6%
Levy revenue raised ($m)	24.8	24.9	25	25.1	25.2	25.3	25.4	25.6	25.7

Source: PwC estimates

3.4 Scenario D cont.

Effect on NSW Government Revenue

The NSW government removes the race fields levy cap of 1.5% of wagering turnover, enabling the GRA to set a rate sufficient to raise an additional $15 million per year. To raise the additional $15million per year, the race field cap has to be increased to 3.8%.

No direct funding is received from the NSW Government in this scenario. Therefore no direct NSW tax revenue impact but the reduced activity in the racing industry due to the levy rise may have some minor impact on the taxation revenue initially. The net impact on NSW government revenue is negligible.

3.4 Scenario D cont.

Effect on Gross State Product

Unlike the Scenarios B and C, in this scenario the race filed cap is raised by the Greyhound industry (rather than fiscal support), to enable the Greyhound Industry (and other racing industry codes) to use market forces to determine the appropriate contribution from corporate book makers to racing codes to access to products, which has negligible negative impact at the State level
(-0.004% or -$21 million).

The levy increase has initial negative impact (via increased tax rate) on the greyhound industry and does not generate any significant productivity benefits to the rest of the economy to lift GSP to a higher level.

NSW GSP effect, cumulative %

NSW GSP effect, cumulative
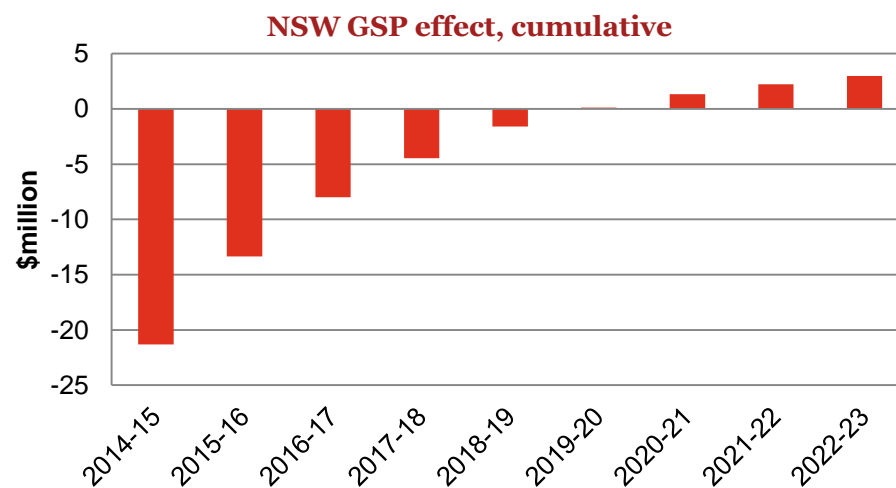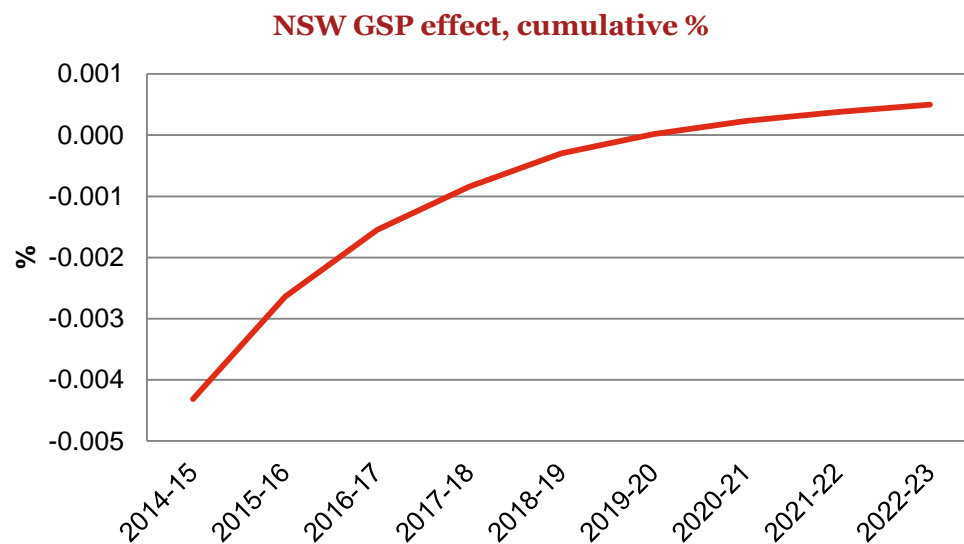
Source: PwC estimates based on MMRF model.

3.4 Scenario D cont.

Effect on industry gross value add of the NSW racing sector

Higher race field levy affect its contribution to the NSW economy through lower operating surplus. This has negligible negative impact on the industry.

The table below outlines the breakdown of industry gross value added by racing code.

Effect on industry gross value add ($m)

■ Thoroughbred ■ Greyhound ■ Harness
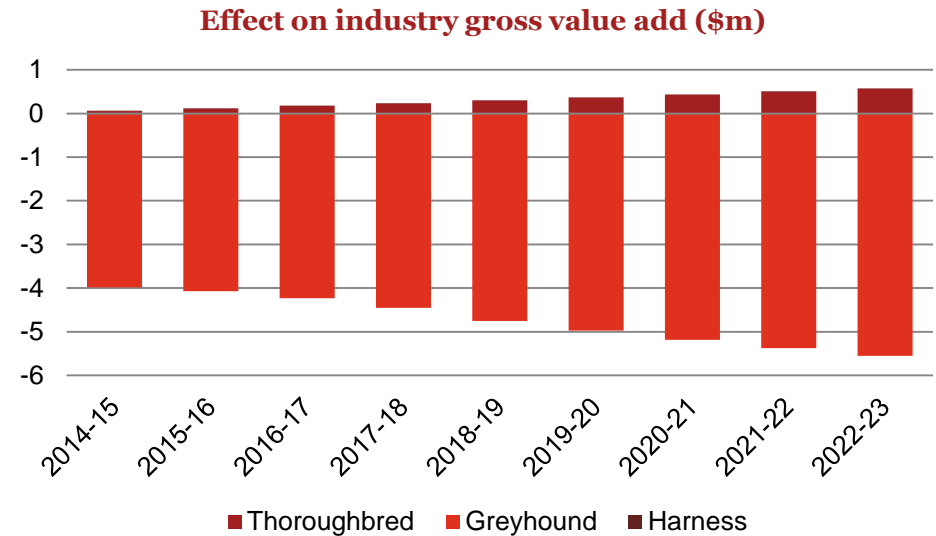
Source: PwC estimates based on MMRF model.

$million	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
TRI	0.057	0.114	0.172	0.233	0.296	0.362	0.429	0.498	0.568
GRA	-3.981	-4.069	-4.233	-4.455	-4.754	-4.971	-5.184	-5.373	-5.553
Trots	0.001	0.002	0.004	0.005	0.006	0.007	0.008	0.009	0.010

Source: PwC estimates based on MMRF model.

Scenario

The NSW Government reduces its taxation rate on race wagering to equal that of Victoria.

Interpretation:
Victoria currently imposes a tax rate of 7.6 per cent of *gross returns*, while NSW imposes a tax rate of 19.11 per cent. NSW race wagering revenue is forecast at $159 million in 2014-15, so this proposal implies reducing the NSW Government's tax revenue by $96 million to $63 million.

The returns to punters will remain unchanged at 84% of NSW TAB's turnover (this implies that there is no direct increase in demand for wagering). The benefits of the reduced tax revenue ($96 million) will be shared among the three racing codes according to the existing inter-code agreement.

That is, in 2014-15 the RDA pool would increase from $250 million to $346 million, of which greyhounds would receive 13% ($45 million), thoroughbreds would receive 70% ($242 million) and harness racing would receive 17% ($59 million).

E

3.5 Scenario E

Effect on NSW Government Tax Revenue

The NSW government reduces taxation rate on race wagering to equal that of Victoria.

The decrease in wagering tax rate has a direct and indirect impact on the State government's tax revenue . The indirect impact considers the behavioural changes and industry price responses.

There is a downward sloping demand curve for gambling industry indicating that aligning the wagering rate with the Victorian rate increases the return to the racing industry.

This proposal reduces the NSW Government's direct tax revenue by $96 million in the first year.

NSW Direct fiscal effect, annual
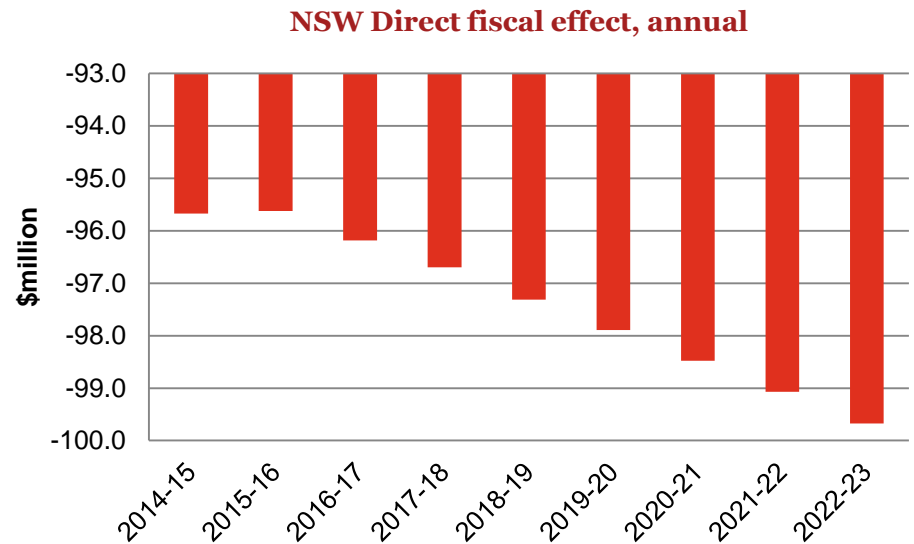
Source: PwC estimates based on Treasury

3.5 Scenario E cont.

Total annual funding received by three racing codes.

The benefits of the reduced tax revenue will be shared among the three racing codes according to the existing inter-code agreement.

$million	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
TRI Funding	242.0	242.6	243.7	244.8	245.9	247.1	248.2	249.3	250.4
GRA Funding	44.9	45.1	45.3	45.5	45.7	45.9	46.1	46.3	46.5
Trots Funding	58.8	58.9	59.2	59.5	59.7	60.0	60.3	60.5	60.8

Source: PwC estimates based on Treasury
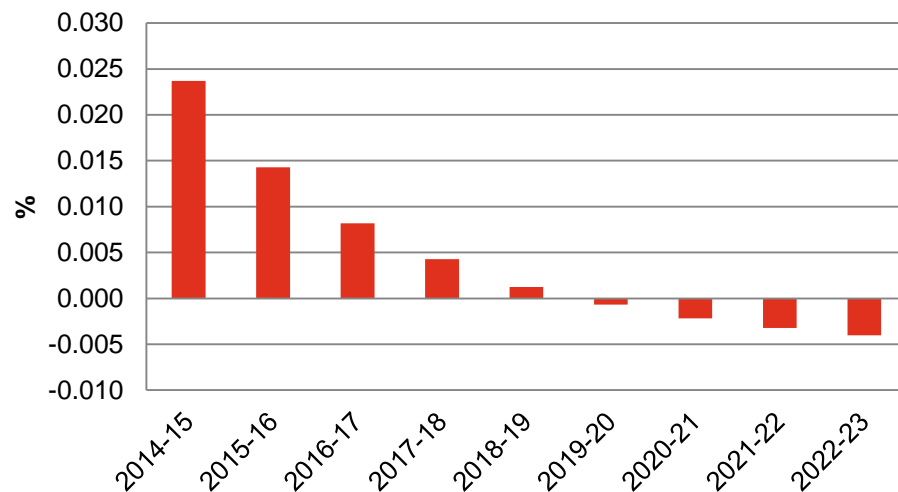
3.5 Scenario E cont.

Effect on Gross State Product

The effect of decreased wagering tax rate for three codes has a positive impact on the NSW economy.

As shown in the graph on the right there in an initial spike in the first year at (0.024% of GSP or $117 million) in the first year that the new tax rate is applied. Economic growth is affected in every year subsequently as the tax reduction is offset by lower government expenditure in other parts of the economy.

Additionally, as the racing industry is a consumptive sector of the economy, it doesn't generate any significant productivity benefits to the rest of the economy to lift GSP and offset the impact of the reduction in government expenditure. The cumulative impacts fall through time as negative contribution to growth eat away at the initial spike in economic growth.

Effect on GSP, cumulative ($m)

Source: PwC estimates based on MMRF model.

Effect on GSP, cumulative (%)
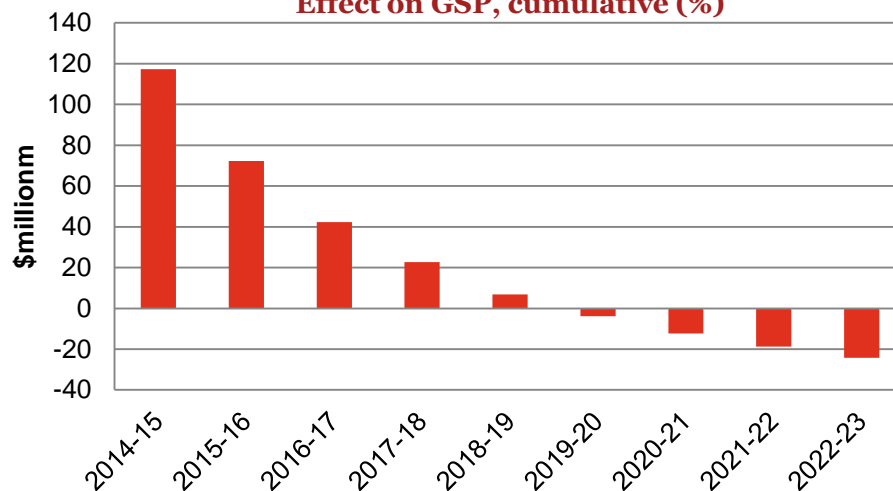
Source: PwC estimates based on MMRF model.

3.5 Scenario E cont.

Effect on the industry gross value add

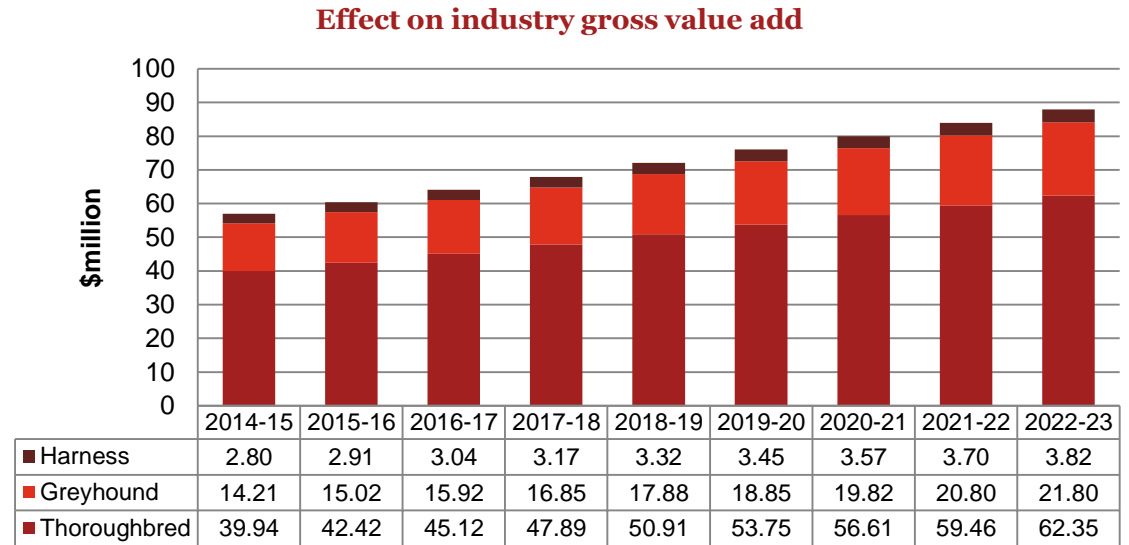Aligning the wagering tax rate with Victorian rates has a positive impact on the racing industry gross value add and its contribution to the NSW GSP. All three codes benefit from the lower wagering tax rate.

Effect on industry gross value add

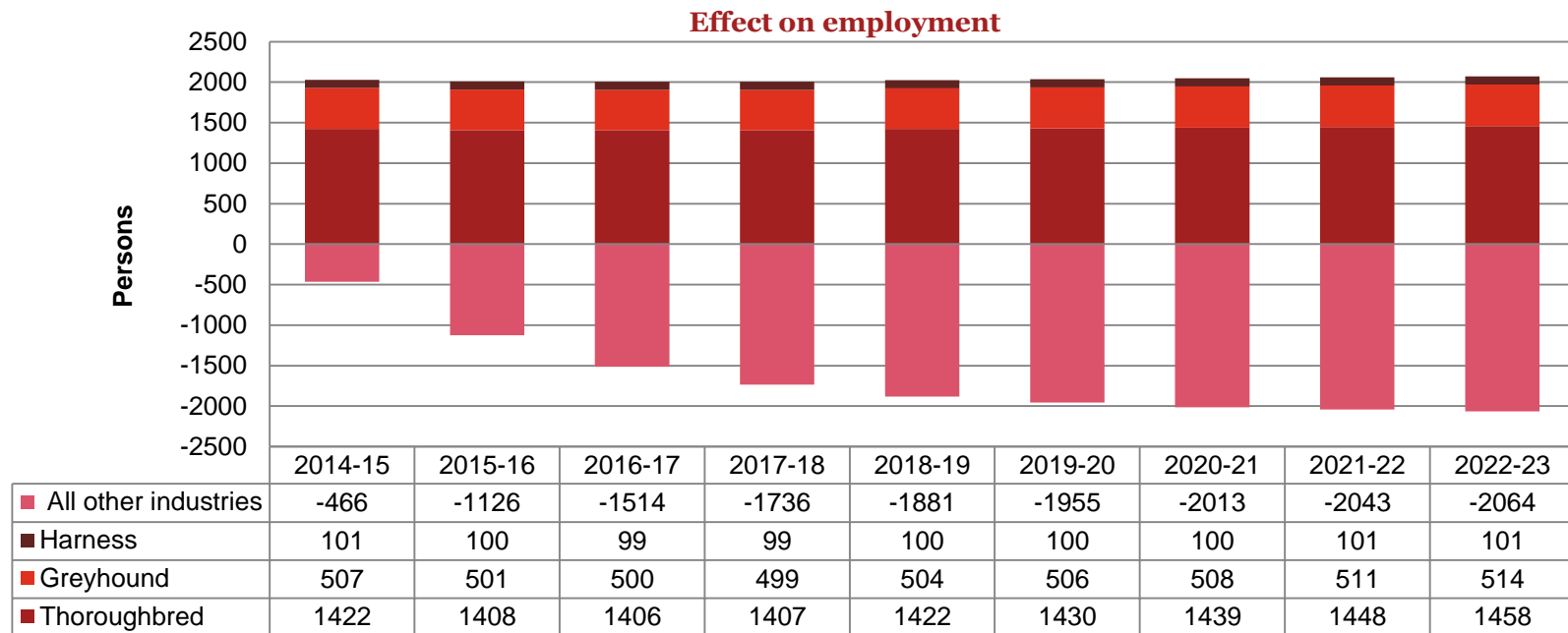|	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
■ Harness	2.80	2.91	3.04	3.17	3.32	3.45	3.57	3.70	3.82
■ Greyhound	14.21	15.02	15.92	16.85	17.88	18.85	19.82	20.80	21.80
■ Thoroughbred	39.94	42.42	45.12	47.89	50.91	53.75	56.61	59.46	62.35

Source: PwC estimates based on MMRF model.

Source: PwC estimates based on MMRF model.

3.5 Scenario E cont.

Effect on employment

Employment effects of reducing the tax rate are positive for the racing industry at the expense of employment in other industries.

Effect on employment

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
■ All other industries	-466	-1126	-1514	-1736	-1881	-1955	-2013	-2043	-2064
■ Harness	101	100	99	99	100	100	100	101	101
■ Greyhound	507	501	500	499	504	506	508	511	514
■ Thoroughbred	1422	1408	1406	1407	1422	1430	1439	1448	1458

Source: PwC estimates based on MMRF model.

Source: PwC estimates based on MMRF model.

Technical notes

1. Beyond official budget projections, projected Australian and State economies are based on the 3ps (population, productivity and participation) framework widely used in constructing the baseline in Australia and overseas.

2. Projected baseline growth of thoroughbred racing industry value-add, turnover and tax revenue to 2022-23 is a function of historical growth trends.

3. Broader economic and revenue projections are based on historical data, official projections and methodologies commonly used by the NSW Treasury.

4. Budget neutrality: to keep the budget in balance following the reduction in race wagering taxes, we have reduce total government expenditure (alternatively, taxes in other areas could be increased)

5. Model input is a different tax rate implemented as one-off reduction in tax rate to align NSW rate with Victorian rates. Since the model used is a CGE model, it traces the impact of reduced taxes on the racing industry and rest of the economy. Reduction in taxes lead to a shift in resources from one industry to the other. The net effect appears positive implying some inefficient taxes lowered. This will effect the level of GSP rather than the growth rate of the GSP.

Technical notes

6. A number of fiscal rules can be implemented using our CGE models, for example to keep the budget balance some inefficient state taxes can be increased. But this type of analysis is outside the scope of this study.

7. The modelling based on the sound economic principles (cost optimisation at the industry level and utility maximisation at the household or consumer level) and behavioural responses of consumers.

8. The MMRF model is a multi-regional, dynamic computable general equilibrium (CGE) model. It distinguishes up to eight Australian regions (six States and two Territories) . The model recognises, domestic producers classified by industry and domestic region; investors similarly classified; eight region-specific household sectors; an aggregate foreign purchaser of the exports; eight state and territory governments; and the Federal government. The role of Government plays an important part in determining the impacts of various forms of assistance. Following fiscal and external closures are applied in all four policy scenarios

    *   There is no change in real Government consumption (both Commonwealth and States);
    *   There is no changes Government budget balances; and
    *   There is no change in current account balance.
    *   The model contains explicit representations of intra-regional, inter-regional and international trade flows based on regional input-output data developed at Centre of Policy Studies, Victoria University, and includes detailed data on state and Federal governments' budgets.

    Source: http://www.monash.edu.au/policy/mmrf.htm

Government can increase borrowing, the model does not take account of the Government's debt strategy and AAA credit rating constraint.

As structured, the report takes a little understanding. Results are reported as variations from the model's benchmark. To understand the annual changes, the reader needs to focus on charts labelled 'cumulative'. For example, page 9 summarises the effect of the scenarios on NSW tax revenues, with scenario B resulting in around $30 million reduction in NSW revenue in 2014-15 to 2017-18 and around $15million reductions in subsequent years. Note that the Net tax effects summarised on page 8 include Commonwealth taxes, and are thus of little interest to the NSW Government.

I am happy to answer any questions that the Committee staff may have about the report.

Michael Warlters | Principal Adviser, Revenue Analysis Branch
Level 26, Governor Macquarie Tower, 1 Farrer Place, Sydney NSW 2000
p: 02 9228 4254
e: michael.warlters@treasury.nsw.gov.au | www.treasury.nsw.gov.au