

Attachment D: Estimating fuel excise and fuel tax credits over the medium term

The following charts provide the results of a simple medium term model of fuel taxation, from 2019-20 to 2032-33. The model looks at the relationships between excise and FTCs on diesel and petrol (tariff items 1005 and 1010) only and does not include adjustments for the timing of revenue or expenses. Changes in FTCs are assumed to occur in the same period as changes in the associated excise revenue, although in practice these are likely to lag excise collections by a month or more. The model does not include changes in GST or income taxes.

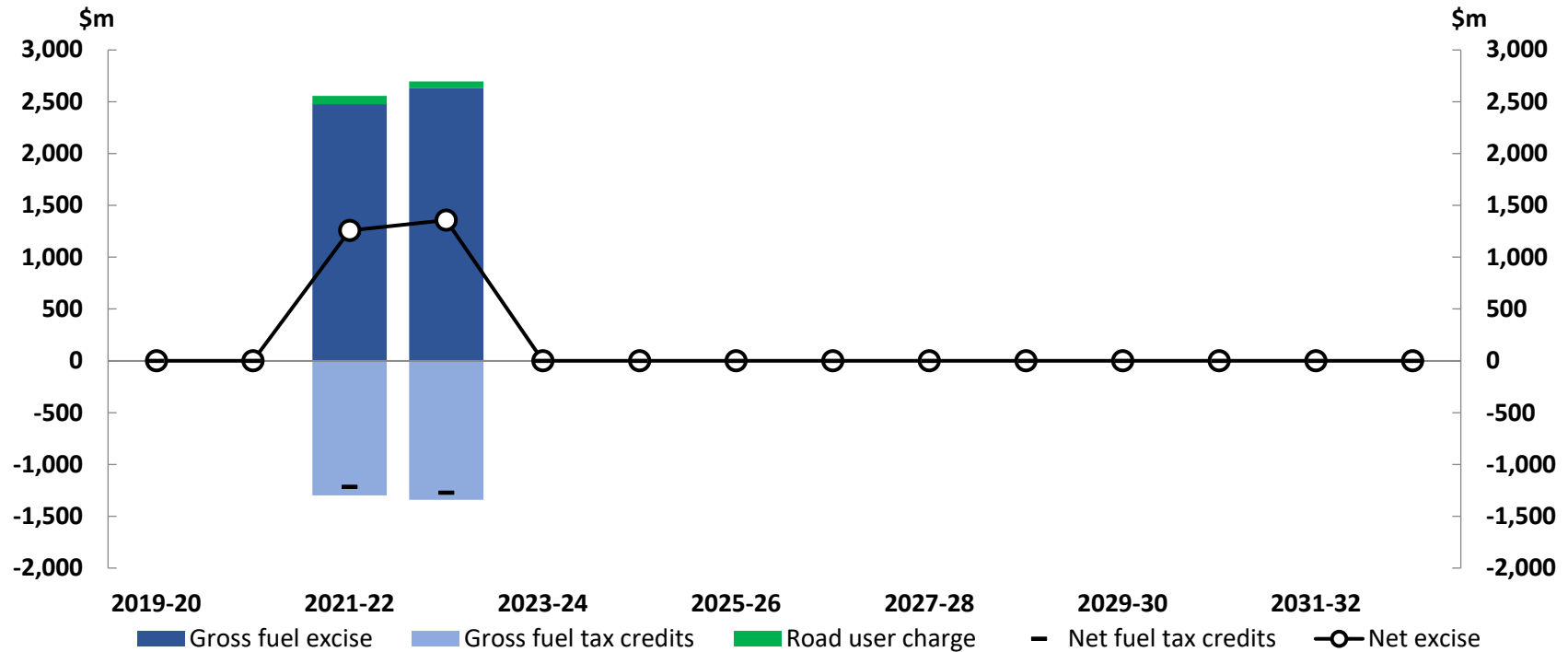
Figures D1 to D4 illustrate the changes in the fuel excise over the medium term and how the system would be affected by potential policy settings and changes in demand for fuel.

Positive values in the chart indicate an increase in the budget balance, negative values indicate a reduction.

The dark blue bars in the charts show gross excise collections, the light blue bars show gross fuel tax credits, which are offset to a small extent by the green bars which is the impact of the road user charge. The small black lines show the net FTC amount (FTCs less RUC) and the open circles show net excise collections (i.e. Gross excise collections less net FTCs). Fuel tax credits are shown with a negative value in the charts, as they are expenses and reduce the relevant budget balances. Similarly, the RUC is shown with a positive value as it reduces the value of FTCs paid and so increases the relevant budget balances.

Figure D1 shows the impact of the temporary halving of fuel excise included in the 2022-23 Budget for petrol and diesel by looking at the impact of reversing the measure relative to the 2022-23 Budget baseline. Reversing the temporary reduction would increase gross excise collections by about an eighth for each of 2021-22 and 2022-23.

**Figure D1: Change in fuel excise and fuel tax credits, reverse the temporary reduction in fuel excise
Petrol and diesel**

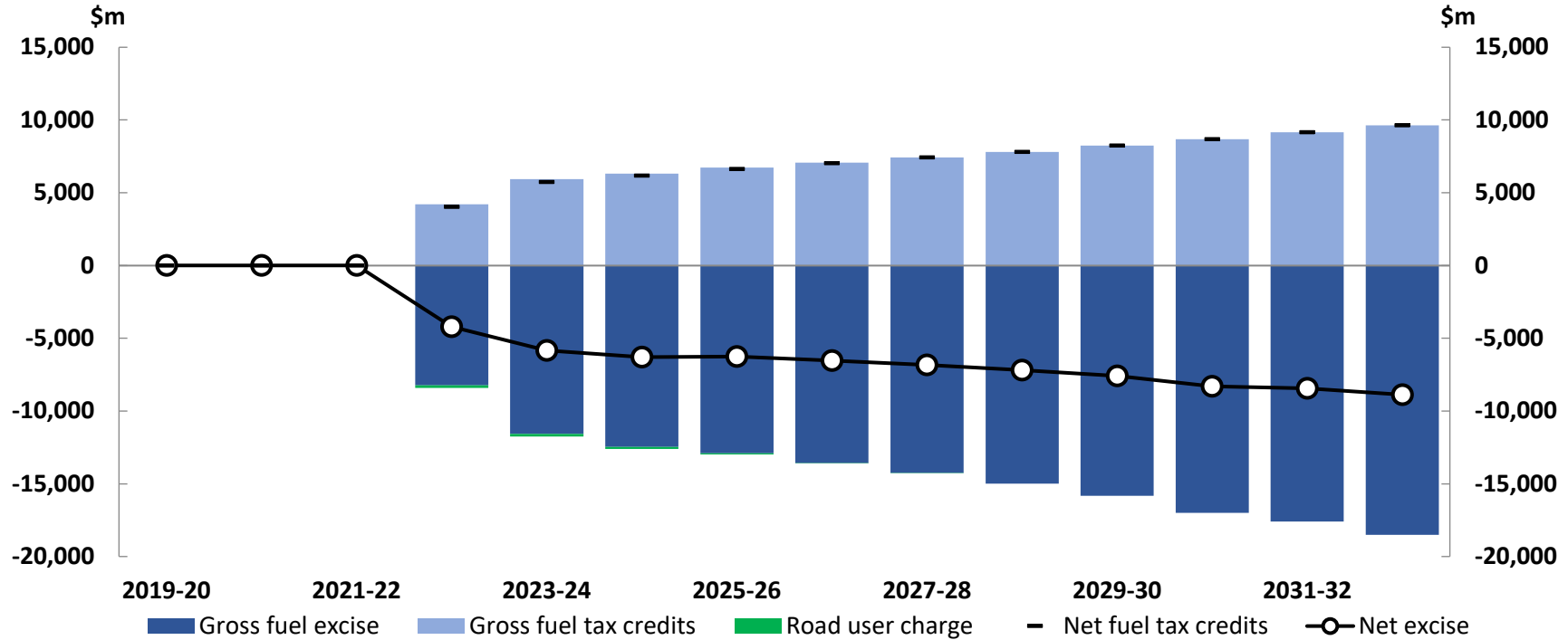


\$m	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33
Gross fuel excise	0	0	2,500	2,600	0	0	0	0	0	0	0	0	0	0
Gross fuel tax credits	0	0	-1,300	-1,300	0	0	0	0	0	0	0	0	0	0
Road user charge	0	0	100	100	0	0	0	0	0	0	0	0	0	0
Net fuel tax credits	0	0	-1,200	-1,300	0	0	0	0	0	0	0	0	0	0
Net excise	0	0	1,300	1,400	0	0	0	0	0	0	0	0	0	0

Figure D2 shows the impact of extending the temporary excise reduction indefinitely. This would approximately halve net excise collections from 2023-24 onwards, with a lesser impact in 2022-23 as the change is a part year effect due to the reduction already included in the Budget estimates.

Figure D2: Change in fuel excise and fuel tax credits, continue 50% reduction in fuel excise

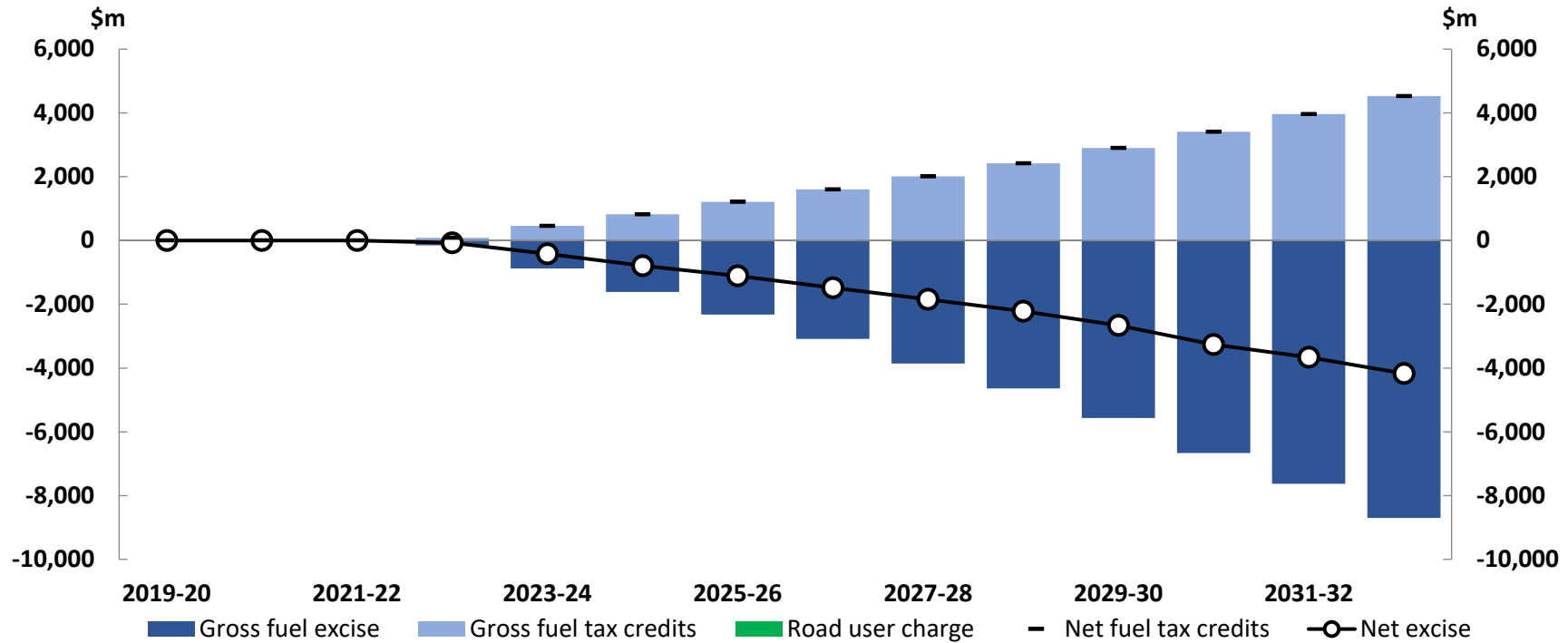
Petrol and diesel



\$m	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33
Gross fuel excise	0	0	0	-8,200	-11,600	-12,500	-12,900	-13,600	-14,300	-15,000	-15,800	-17,000	-17,600	-18,500
Gross fuel tax credits	0	0	0	4,200	5,900	6,300	6,700	7,100	7,400	7,800	8,200	8,700	9,100	9,600
Road user charge	0	0	0	-200	-200	-100	-100	0	0	0	0	0	0	0
Net fuel tax credits	0	0	0	4,000	5,700	6,200	6,600	7,000	7,400	7,800	8,200	8,700	9,100	9,600
Net excise	0	0	0	-4,200	-5,800	-6,300	-6,300	-6,500	-6,800	-7,200	-7,600	-8,300	-8,400	-8,900

Fuel excise indexation was paused from 2001 until 2014. Figure D3 shows the impact of freezing fuel excise indexation from 1 January 2023. The impact of an indefinite pause builds gradually over time, with the impact on net excise by 2032-33 being 44% of the impact of continuing the temporary reduction in the fuel excise rate.

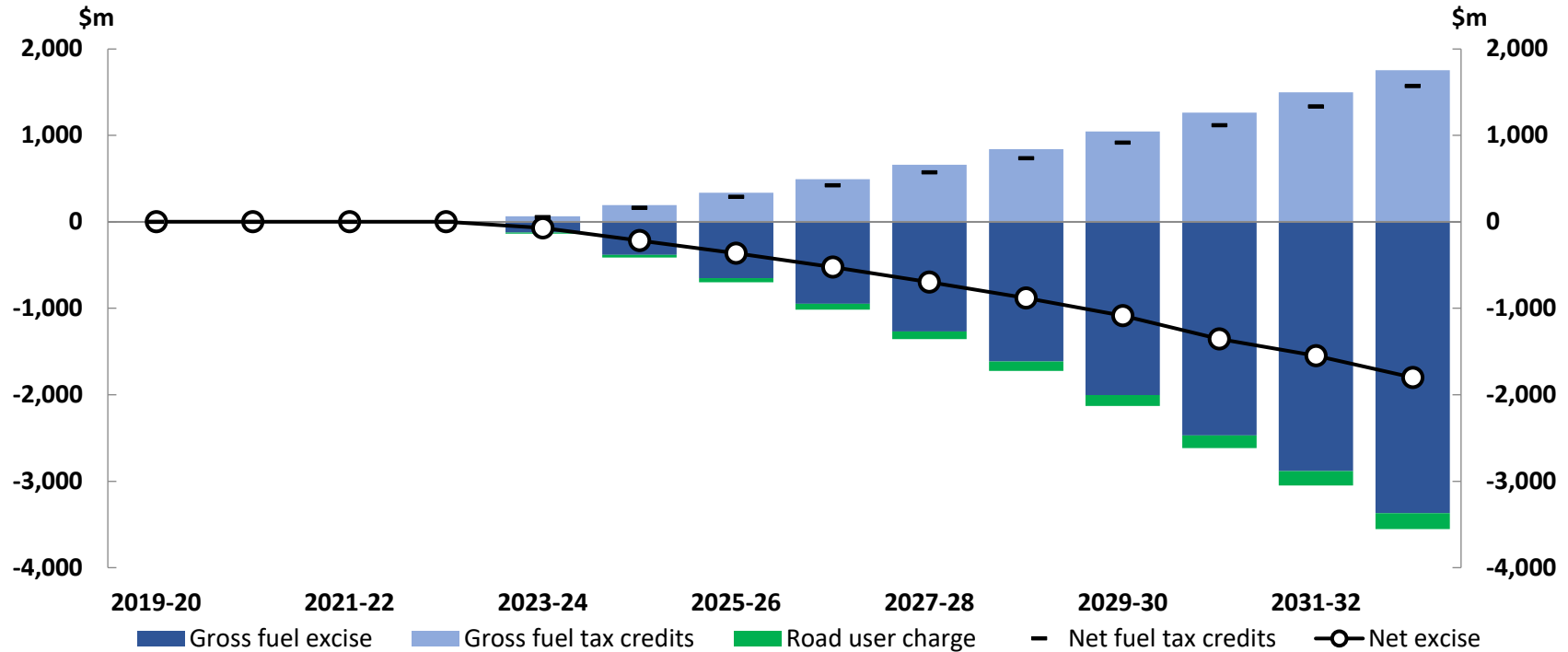
Figure D3: Change in fuel excise and fuel tax credits, freeze excise rate from 1 January 2023
Petrol and diesel



\$m	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33
Gross fuel excise	0	0	0	-200	-900	-1,600	-2,300	-3,100	-3,900	-4,600	-5,600	-6,700	-7,600	-8,700
Gross fuel tax credits	0	0	0	100	500	800	1,200	1,600	2,000	2,400	2,900	3,400	4,000	4,500
Road user charge	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net fuel tax credits	0	0	0	100	500	800	1,200	1,600	2,000	2,400	2,900	3,400	4,000	4,500
Net excise	0	0	0	-100	-400	-800	-1,100	-1,500	-1,800	-2,200	-2,700	-3,300	-3,700	-4,200

Figure D4 shows the potential impact of increased fuel efficiency on fuel excise and FTCs beyond that built into the budget projections. This could arise from reduced fuel consumption due to changes such as moving to electric vehicles and reduced fuel consumption of new cars. The chart assumes a 1% reduction in fuel clearances per year from 2023-24. This would reduce net FTCS by around 10% by 2032-33 as the fuel excise base declines due to slower growth in fuel use.

Figure D4: Change in fuel excise and fuel tax credits, extra 1% reduction in fuel used from 2023-24
Petrol and diesel



\$m	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33
Gross fuel excise	0	0	0	0	-100	-400	-700	-900	-1,300	-1,600	-2,000	-2,500	-2,900	-3,400
Gross fuel tax credits	0	0	0	0	100	200	300	500	700	800	1,000	1,300	1,500	1,800
Road user charge	0	0	0	0	0	0	0	-100	-100	-100	-100	-100	-200	-200
Net fuel tax credits	0	0	0	0	100	200	300	400	600	700	900	1,100	1,300	1,600
Net excise	0	0	0	0	-100	-200	-400	-500	-700	-900	-1,100	-1,400	-1,500	-1,800