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Tax and pollution

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** This Policy Brief is based on work commissioned by the Australian Conservation Foundation (ACF). The work is independent research and the options and recommendations do not necessarily reflect the views of the ACF.*

This policy brief discusses tax and pollution. The brief identifies the elements in the Australian tax system that may affect pollution by altering the incentives of economic agents in relation to polluting the environment, through the distortion of price signals and the externalisation of costs that are ultimately borne by the environment and society.

The tax system is a powerful driver of Australia's economy. Taxation can change the price of a good or service making it more or less financially attractive to consumers and investors. It can shift a market to prefer one technology or another especially if they are directly substitutable. It can encourage or discourage certain behaviour. This brief is focused on the effects of the tax system on air pollution, particularly carbon emissions, fuels and vehicle use. The brief also identifies other issues where the tax system may have an impact, including water pollution and waste. The brief draws on existing literature and some experiences in other countries.

This brief sets out policy options for reform of the tax system to reduce or prevent pollution. These policy options take into consideration the fact that tax policies which alter production decisions can have efficiency and distributional costs. The best strategy may be the reduction or removal of incentives currently altering production decisions towards polluting options. Policy alternatives are also considered for consumption-based channels, since taxes that alter consumption decisions may have lower efficiency costs than those altering production decisions. Overall, a package of tax and other reforms would be required to deal with population-wide effects.

SUMMARY OF POLICY OPTIONS

Policy option 1. Reintroduce a carbon price/carbon emissions trading system.

Policy option 2. Review income tax law mechanisms for operation of a CPRS.

Policy option 3. Maintain or improve carbon sink forest and carbon sequestration tax provisions.

Policy option 4. Increase taxes on consumption of goods and services in sectors that produce significant carbon emissions.

Policy option 5. Price fuel appropriately for long-term sustainable use.

Policy option 6. Introduce road user charges, congestion or distance-based road taxation.

Policy option 7. Increase implementation of user charges for car parking.

Policy option 8. Reform Fringe Benefits Tax provisions for cars.

Policy option 9. Support consumers and businesses to shift to energy efficient or electric vehicles.

Policy option 10. Explore reforms to car registration measures.

Policy option 11. Review eligibility for deductions for pollution clean-up costs.

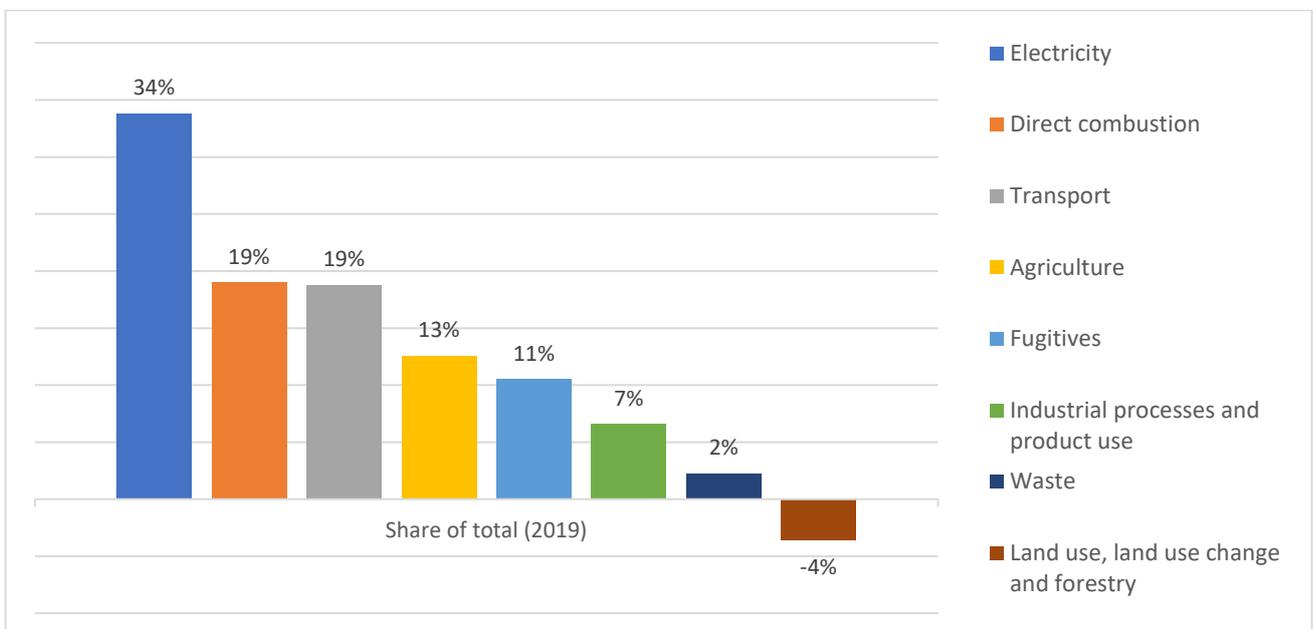
Policy option 12. Target business instant asset write-off concessions towards energy efficient capital investments and explore accelerated depreciation for upgrade to equipment that achieves specified environmental efficiency gains.

CARBON POLLUTION

In 2015, Australia's carbon emissions were [22.6 tonnes](#) per capita (tCO₂eq/cap), the highest amongst industrialised economies and just behind Bahrain, Brunei, Kuwait, Qatar, Trinidad and Tobago and the United Arab Emirates. Consumption-based emissions estimates, which take trade into account (production-based emissions minus embedded CO₂ in exported goods plus embedded CO₂ in imported goods) [place](#) Australia's emissions at 3.5 times the country's share of global population.

In 2019, 53% of Australia's greenhouse gas emissions [were estimated](#) to come from electricity and direct combustion; 19% from transport; 13% from agriculture; 11% from fugitives (the extraction, processing and delivery of fossil fuels); 7% from industrial processes and product use; and 2% from waste (disposal of solid waste and wastewater), as shown in Figure 1. Land use, land use change and forestry (a measure that includes both emissions and sequestration) had a negative contribution to emissions, at minus 4%.

Figure 1: Australia - Emissions by sector (Mt CO₂-e)



Own construction. Source: Department of the Environment and Energy 2019, [Australia's Emissions Projections 2019](#).

Policy options

A range of tax policy options may be considered to reduce Australia's carbon emissions by altering production and consumption decisions. The [most important](#) remains a [price on carbon](#) or cap and trade system. We also identify several other policy options.

Policy option 1. Reintroduce a carbon price/carbon emissions trading system

Empirical evidence indicates that carbon pricing plays a key role in tilting energy mixes in a low-carbon direction (e.g. Best & Burke [2018](#)). The [Economists' Statement on Carbon Dividends](#) published on 17 January 2019, the largest public statement of economists in history, is now signed by more than 3,500 economists, including 27 Nobel laureates. The Statement advises that pricing carbon through a cap and trade

system or carbon tax offers the most cost-effective lever to reduce carbon emissions at the scale and speed that is necessary, sending a powerful price signal and steering economic agents towards a low-carbon future.

The average annual growth rate of carbon dioxide emissions per capita from fossil fuel combustion has been significantly lower for countries that have had a carbon price compared to countries without, even after controlling for the use of other policies aimed at reducing emissions. Scientists argue that a carbon price is an [opportunity](#) to restructure agricultural, resource and rural Australia for long term sustainability.

Emission Trading Schemes in Australia: Background

Australia introduced a cap-and-trade carbon emissions trading scheme, the Carbon Pollution Reduction Scheme (CPRS), in the [Clean Energy Act 2011](#). The CPRS was intended to be the main element in Australia's effort to reduce greenhouse gas emissions in line with the Kyoto agreement. The CPRS only operated for three years. It was repealed by the Abbott Government in the [Clean Energy Legislation \(Carbon Tax Repeal\) Act 2014](#).

The former CPRS set a carbon pollution cap on the sum of total auctioned carbon units and total issued free carbon units. The mechanism required that producers surrender one eligible emissions unit for each tonne of carbon dioxide equivalence of the greenhouse gas emissions from their activity. The obligation to buy carbon units, initially at a set price, operated like a carbon tax. Producers with insufficient carbon units would be required to pay a unit shortfall charge.

Under the CPRS, [revenue from the sale of emissions units](#) would be channelled to

incentivise households and businesses to adjust towards an economy with lower pollution, higher energy efficiency and more sustainable energy sources. For emissions-intensive trade-exposed activities, free carbon units were issued under a Jobs and Competitiveness Program. Coal-fired electricity generators were also issued free carbon units. Measures were enacted to assist low- and middle-income households and to provide for fuel tax adjustments, as well as a variety of industry assistance measures.

The Henry Tax Review (2009) proceeded on the assumption that the CPRS would go ahead, so it did not specifically address this issue. However, the Review [advised](#) that transitional industry assistance through tax and non-tax measures, to support implementation of the CPRS, should be phased out. The Review accepted that compensation for the overall income of individuals and households, in the form of tax cuts and increased income support, was compatible with carbon price signals to achieve emissions reductions.

Emission Trading Schemes: Current proposals

The Economists' Statement (2019) asserts that a carbon tax should increase annually until emission targets are met; these gradual increases will replace various carbon regulations that are less efficient, changing regulations for price signals. The Statement recognises, however, that the carbon tax needs to be revenue-neutral and proposes that revenue be returned to individuals through lump-sum rebates to offset increased energy prices.

A [2019 report](#) by the International Monetary Fund (IMF) models the likely impact on emissions, fiscal revenues, local air pollution mortality, and economic welfare impacts of a range of instruments including

comprehensive carbon taxes, emissions trading systems, taxes on individual fuels, and incentives for energy efficiency. The IMF [paper](#) points to emissions trading schemes as a competitive alternative for Australia; studies have also shown that present costs could be more than offset when considering future welfare and efficiency gains ([Kotlikoff et al 2019](#)). The IMF report also stresses other mitigation instruments, such as the use of revenue-neutral tax subsidy schemes to promote cleaner power generation, shifting to cleaner vehicles, and improvements in energy efficiency without an increase in fuel prices (see below; see Policy Brief 2). In subsequent analysis, the IMF has also identified the opportunity for industrialised countries like Australia to use carbon pricing revenue to decrease taxes on labour and capital income, which [implies a retooling](#) of the tax system rather than an increase in the overall tax burden; a range of approaches are [suggested by the IMF](#).

During the 2019 Federal election campaign, the Liberal National Party Coalition proposed a [climate solutions package](#) and the Australian Labor Party (ALP) proposed a [climate change action plan](#). Neither party expressed an intention of reintroducing a carbon pricing mechanism or emissions trading scheme. On registered emissions units (ITAA97 [section 420.1](#)), the Coalition intends to carry over surplus Kyoto credits. However, we note that the Kyoto Protocol establishes that no country may comply with its reduction commitments exclusively through use of these Kyoto mechanisms.

The ALP [proposed](#) a plan to expand the previous Turnbull Government's [safeguard mechanism](#), forcing around 250 of Australia's biggest polluters to cap their emissions. This excluded the farming sector. The [safeguard mechanism](#) is already part of the Emissions Reduction

Fund and started on 1 July 2016, applying to around 140 large businesses (covering around half of Australia's emissions) by requiring them to keep emissions within baseline levels. Since the mechanism is based on crediting and purchasing elements to lower the country's emissions – funding businesses to undertake productivity-enhancing projects– it could be built upon towards a larger cap-and-trade scheme.

Policy option 2. Review income tax law mechanisms for operation of a CPRS

Several provisions to support operation of a CPRS remain in the *Income Tax Assessment Act 1997* (ITAA97). These should be reviewed for operational effectiveness to support a new carbon cap and trade system. The ITAA97 also contains provisions on [registered emissions units](#) (Kyoto or Australian carbon credit units) and their [international transfers](#), and on the trading stock treatment of units, which are currently not applicable as there is no CPRS in operation.

The use of tax deductions and exemptions or grants in the income tax law should be investigated to identify what is the most efficient, transparent mechanism to support industry transition to a low carbon future, on reintroduction of a cap and trade system. Previously, the Henry Tax Review received submissions [supporting](#) a range of tax incentives for reducing pollution and energy efficiency to support transition under the CPRS. Submissions argued for accelerated depreciation for investments that reduce carbon emissions, and for lower taxes on energy-efficient or hybrid cars. The Review advised against these special provisions, arguing that supplementary policies could affect the economy-wide goal of achieving emission reductions through price signals and private decision-making.

Policy option 3. Maintain or improve carbon sink forest and carbon sequestration tax provisions

Income tax reforms were made at the time of introduction of the CPRS to support Australia's carbon emission reduction goals. Carbon sink forest investment is supported by [Subdivision 40-J](#) of ITAA97, which allows a deduction for capital expenditure by a taxpayer carrying on a business, where the expenditure is incurred to establish trees that meet the requirements for carbon sequestration (Section 40-1000). The cost of establishing the trees is deductible at a write-off rate of 7% per year, in general. Strict conditions are applied to define establishment costs of carbon sink trees (Section 40-1010).

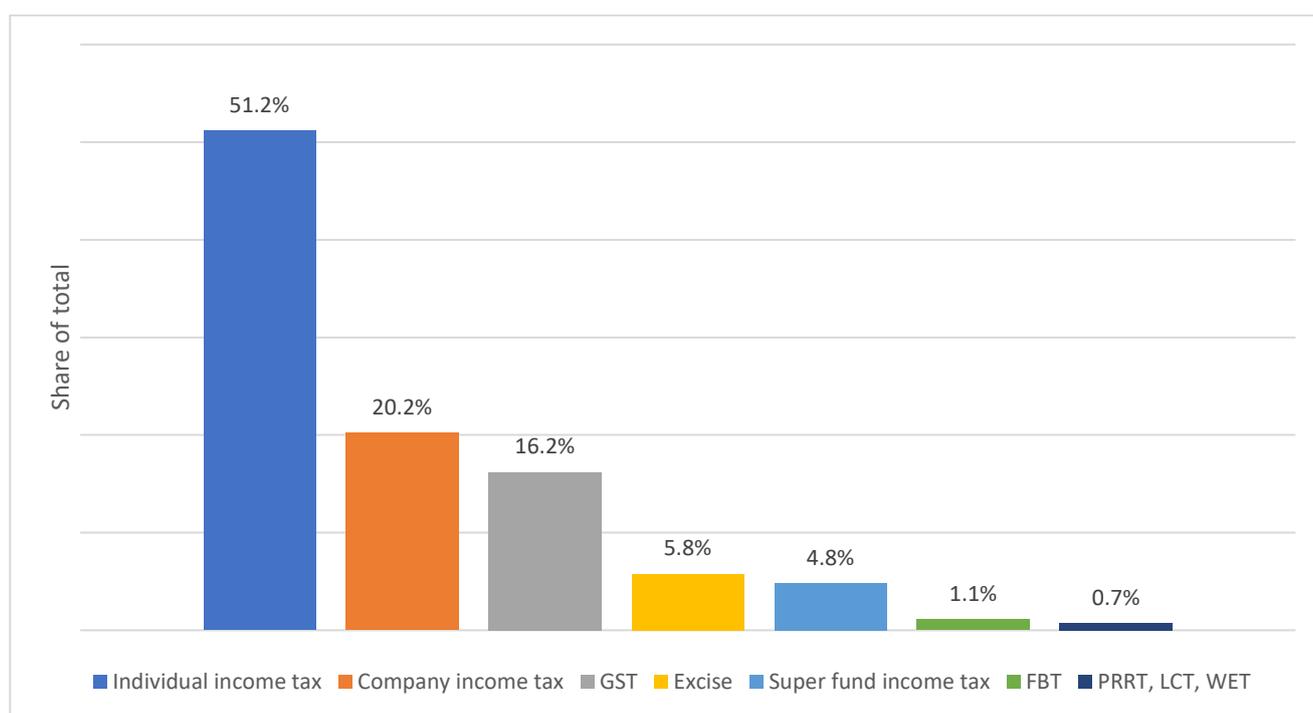
The [Carbon Credits \(Carbon Farming Initiative\) Act 2011](#) establishes the guidelines for sequestration and mechanism for determining Australian carbon credit units, which may be issued in relation to eligible offsets projects.

No deduction is provided for taxpayers not in a business, or for private individuals or entities. In addition, all other forestry investment or business activities are excluded. There may be scope to extend a tax incentive for private individuals, or investors, to invest in carbon sequestration operations or forests in Australia. Exploring Australia's potential to build an industry for carbon sequestration could lead to significant emissions offsets, with estimates [suggesting](#) nearly double the amount of the country's annual emissions could be offset through carbon capture.

Consumption taxes

Tax policy may be used to increase the price of consuming goods and services for carbon producing sectors, through levying a tax (or increasing the tax) on consumption. In Australia, taxes on consumption are low relative to other OECD countries. Figure 2 shows that the Goods and Services Tax (GST) and excises generate only 22% of total federal taxation liabilities.

Figure 2: Australian government taxation liabilities by source, 2016-17



Source: Australian Taxation Office 2019, [Taxation Statistics 2016-17](#). GST: Goods and Services Tax; FBT: Fringe Benefits Tax; PRRT: Petroleum Resource Rent Tax; LCT: Luxury Car Tax; WET: Wine Equalisation Tax.

Policy options

Policy option 4. Increase taxes on consumption of goods and services in sectors that produce significant carbon emissions

The Goods and Services Tax (GST) is levied at a 10% rate on a wide range of goods and services, but with significant base exemptions and input-taxed items, including basic food, water and sewage services, health and education. In addition, excises are charged on alcohol, tobacco and fuel.

Many exemptions from the GST base have an equity goal, but can have a negative environmental impact, as well as reducing the efficiency, simplicity and revenue from this tax. One example is the exemption of water and sewage supplies from the GST. Another example is the exemption of food. As shown in Figure 1, in Australia agriculture is a significant producer of carbon emissions; cattle (meat and dairy) [accounts for 70%](#) of greenhouse gas emissions by the sector. Globally, livestock accounts for [15% of greenhouse emissions](#), and is a [major source](#) of land and water degradation; the consumption of fossil fuel along the sector supply chains, in itself, accounts for about [20% of the livestock sector emissions](#). According to the Food and Agriculture Organisation of the United Nations, emissions reduction from the livestock sector [can be achieved](#) by reducing production and consumption, by lowering emission intensity of production, or by a combination of the two.

All meats for human consumption are [GST-free](#), as are milk, cream and cheese. The exemption reduces the cost of consumption of meat and dairy relative to other goods and services. Fresh and tinned vegetables and fruits are also GST-free, as are sugar, honey, jams and syrups. The main reason

for such GST-free treatment is equity, although high income households benefit significantly from GST-free meat, dairy and fresh produce. Another example of GST-free treatment of an item, with negative environmental effects, is the GST-free status of bottled water, which is often supplied in plastic, and whether, or not, the water is imported. It is questionable whether this GST-free status is appropriate taking account contemporary policy concerns around environmental impact.

A further example of the role Australian consumers play in rising greenhouse emissions are the imports of highly-polluting, emission-intensive goods and services from countries with lower environmental standards. For instance, it has been estimated that about 20% of China's air pollutant emissions are related to exports for foreign consumption ([Wang et al 2017](#)). This effectively externalises the pollution to the source country, with negative environmental and health impacts for its population, and increasing global greenhouse emissions overall.

On the production side, it is important to assess the emissions and pollution derived from export-oriented goods and services produced in Australia. All exports are GST-free, consistent with Australia's destination-based consumption tax design. This does not take account of whether economic and tax policy benefits of the current system outweigh environmental and social costs, for example, of meat or livestock exports. However, this is consistent with the broad policy design of a GST intended to tax consumption where the consumer is located.

Broadening the base of the GST would be more neutral and raise revenue, which can be used to ensure distributional equity, while having potential to improve

environmental outcomes (see analysis in [Hasan and Sinning 2017](#)). A reform to make the GST more neutral or increasing the relative price of polluting goods and services, could serve both tax and environmental policy goals. On the other hand, GST concessions, or new measures for GST-free treatment could be introduced for supply of goods and services with positive environmental effects. The European Parliament [has consulted](#) on reduced VAT rates for goods and services with positive cultural, social or environmental effects, and zero-rate VAT exemptions have been [proposed](#) on equity, social, health or environmental grounds.

Any policy to increase or reduce the general GST on environmental grounds requires careful evaluation against tax policy goals of simplicity and equity, taking account of revenue impacts and distributional effects on households. It also requires agreement between the federal, State and Territory governments, as part of a system-wide reform.

FUEL TAXES

In Australia, the supply and [consumption](#) of fuel is subject to the GST and excise taxes at varying rates. As at April 2020, all retail fuel prices include GST at the standard rate of 10% (or 1/11 of the total price paid). Excise rates on fuel and petroleum products (other than aviation fuels) are applied at [varying levels](#). After a period of time when indexation of excise rates was halted (and required a decision of government), since 2015, excise rates have been automatically indexed twice a year in line with the consumer price index (CPI).

Petroleum fuels, including petrol and diesel; gaseous fuels; biofuels; crude oil and condensate; solvents, such as white spirits and turpentine; lubricants, such as oils and

greases; and recycled fuel and fuel products are [excisable goods](#) if they are produced or manufactured in Australia. Imported fuel products are subject to customs duty at a rate equivalent to excise duty, ensuring they are treated consistently with domestically manufactured goods. These imported fuels are called excise equivalent goods ([EEGs](#)).

A reduction of fuel excise is provided to businesses in certain circumstances through [fuel tax credits](#) (or rebates), the most widely known being the diesel fuel rebate. The diesel fuel rebate provides businesses with a credit for the excise or customs duty that is included in the price of fuel used in machinery, plant, equipment, and vehicles travelling off public roads or on private roads. The amount of the fuel tax credit depends on when the fuel is acquired, what fuel is used and the activity in which the fuel is used.

Fuel tax credits can be claimed for eligible fuel acquired, manufactured or imported and used in business. Some fuels (aviation and non-transport gaseous fuels and additives) and activities are [not eligible](#), including petrol and other fuel used in light vehicles of 4.5 tonnes gross vehicle mass (GVM) or less, travelling on public roads. Prior to July 2016, biodiesel and fuel ethanol (other than part of a blend with another fuel) were ineligible fuels as well.

Under the [Fuel Tax Act 2006](#), businesses seeking a fuel tax credit for the use of diesel fuel in a heavy vehicle must satisfy one of four environmental criteria to be eligible. The environmental criteria apply to diesel vehicles over 4.5 tonnes gross vehicle mass which are used in an on-road business activity. Vehicles over 4.5 tonnes which operate on other fuels such as petrol, LPG or CNG are not subject to the environmental criteria. These criteria do not apply to motor

vehicles which are used in carrying on a primary production business and which are primarily used on an agricultural property.

The fuel tax credit equalises the tax treatment of electricity generation using liquid fuels with the tax treatment of coal or natural gas inputs to electricity generation. The main arguments in support of the diesel fuel credit are first, that the fuel tax would otherwise apply to heavy vehicles as a business input taxes that would lead to cascading, or double taxation, as the tax is levied on businesses and then on consumers. Second, that it applies for 'off-road' diesel use, and does not relate to the cost of public roads. (See, e.g. Deloitte [report](#) commissioned by the Minerals

Council of Australia, 'Why fuel tax credits are not a subsidy' (2014)).

The Henry Tax Review [accepted](#) in 2009 that fuel tax credits remove the cascading of tax on business inputs, and are not a subsidy for the use of fuel since they are meant to limit fuel tax impacts on production, not consumption. The Review also concluded that while excise is an effective and administratively simple tax for raising revenue, it is less effective as a means of meeting social or environmental objectives, since an excise does not substantially alter the decision to drive in particular vehicles, in particular areas, at particular times.

Table 1. Fuel tax credit and excise rates - select fuel types (April 2020)

Fuel type	Unit	Tax credit : Heavy vehicles for travelling on public roads	Tax credit : All other business uses (including to power auxiliary equipment of a heavy vehicle)	Excise rates	Offset for heavy vehicles travelling on private roads
Liquid fuels, for example diesel or petrol	cents per litre	16.5	42.3	42.3	100%
Blended fuels: B5, B20, E10 (<20% biodiesel; <10% ethanol)	cents per litre	16.5	42.3	42.3	100%
Liquefied petroleum gas (LPG)	cents per litre	0.0	13.8	13.8	100%
Liquefied natural gas (LNG) or compressed natural gas (CNG)	cents per kilogram	0.0	29.0	29.0	100%
Biodiesel (B100)	cents per litre	0.0	5.6	5.6	100%

Own construction. Source: Australian Taxation Office, [Fuel tax credits – Business](#); Australian Taxation Office, [Excise rates for fuel](#).

Policy options

The diesel fuel rebate reduces the excise tax for resource extraction and agricultural enterprises, which are both large contributors to greenhouse gas emissions. The arguments in support of the diesel fuel

rebate do not address [the role](#) of the fuel tax in achieving the environmental goal of discouraging use of polluting fuel by raising its price, and do not provide price incentives for companies to use cleaner inputs.

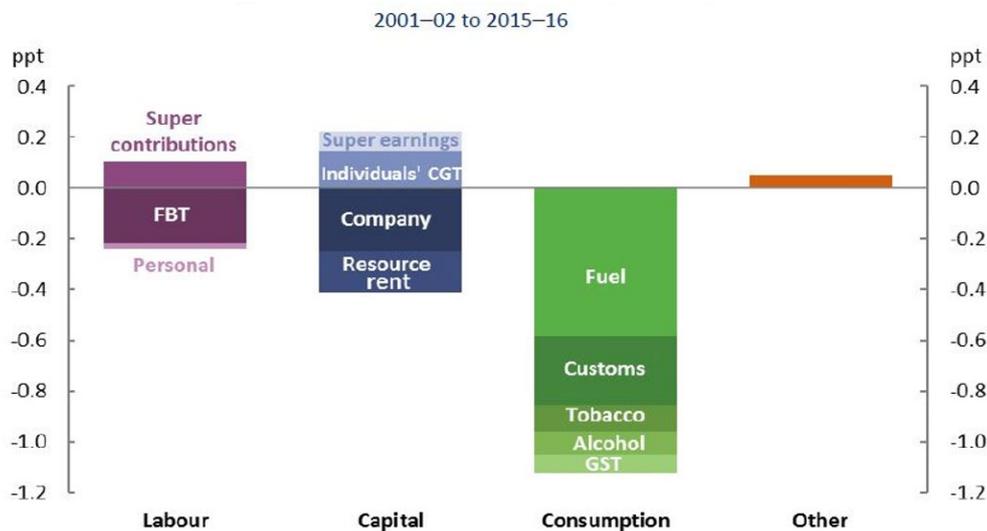
Policy option 5. Price fuel appropriately for long-term sustainable use

A review of Australia's fuel taxes, to change the logic underpinning them and making them uniform and higher, is overdue. This would likely require reducing the rebate on fuel taxes for business.

There are also revenue implications of changing fuel consumption that should be examined in a review. In estimating revenues from the excise, the Australian Tax Office has [acknowledged](#) that fuel

consumption is considered to be relatively inelastic. This means that an increase in price will not lead to a decrease of the same magnitude in quantity demanded. Nonetheless, the Parliamentary Budget Office found that a [decline in fuel excise receipts](#) was the most significant change in Australian tax receipts as share of GDP since 2001-02. The decline (in Green, Figure 3) was driven by the freeze in indexation of the excise (until 2015) and improvements in fuel efficiency.

Figure 3. Trends in tax receipts, excises and consumption compared to other taxes



Source: [Parliamentary Budget Office 2018](#), using ATO, ABS and Treasury Final Budget Outcome data and PBO analysis.

Revenue from the fuel excise can be expected to further decrease as vehicles become more efficient and consumers make the switch to hybrid and electric cars. Hence, it is important to consider alternative revenue sources and mechanisms which could help address the negative externalities from the costs of road transport, such as congestion, noise pollution and air pollution.

Road pricing

In Australia, no explicit charges are levied on road use. The Henry Tax Review (2009) addressed user charges in its analysis of [local government taxes](#) from an economic

efficiency standpoint. If a good or service is provided at no charge to a user, then some users will consume it even if the benefit that they receive from it is less than the cost of providing it, negatively affecting societal wellbeing. A charge that covers the cost of providing the service is not a tax in itself, unless it is in excess of its cost or unrelated to it –for instance, to pursue environmental goals.

Policy options

Road pricing and user charges can help raise revenue by managing demand ([De Percy and Wanna 2018](#) provide a recent analysis and overview). A strategy of road

pricing needs to be complemented by improved public transport alternatives and urban and rural infrastructure. The distributional impact of road pricing is unclear, but it may be regressive. However, if combined with substantial measures to improve access to and efficiency of public transportation, this has the potential for [progressivity](#) and positive environmental impact. Infrastructure Partnerships Australia has recently issued a paper about [road user charging for electric vehicles](#) that do not pay fuel taxes; careful analysis is needed, as this policy needs to be balanced with the goal to encourage the uptake of electric vehicles (see below).

Policy option 6. Introduce road user charges, congestion or distance-based road taxation

A measure that could be implemented in large cities is a congestion charge, as is done in [London](#). Road pricing and congestion charges may be able to be implemented today, from an administrative standpoint, through the use of auto and electronic payment options that already apply for some urban roads, such as the ones available for [Sydney tolls](#).

Policy option 7. Increase implementation of user charges for car parking

User charges for car parking are within the governmental scope of local governments or city councils. These charges may provide an efficient, non-distortionary mechanism for reducing private vehicle use. However, if too high and if alternative transport options are not available, these also have potential to be regressive. They should be combined with enhanced public transport, cycling and walking alternatives for urban travel.

Policy option 8. Reform Fringe Benefits Tax provisions for cars

The Fringe Benefits Tax (FBT) is levied by the Commonwealth government on various in-kind benefits provided by employers to employees, at a flat rate of 45% subject to various valuation rules, concessions and exemptions. The FBT was introduced in 1986 as a back up to the personal income tax on wages of employees.

It is timely to call for a review of the environmental impact of various FBT rules, especially concessional treatment or exemption of cars and carparking exemptions and valuation rules. The concessional treatment of [car parking fringe benefits](#) under the *Fringe Benefits Tax Assessment Act 1986* (FBT Act) includes exemptions for small businesses, discounted valuation rules, and exemptions for a range of charitable employers. With the exception of parking for disabled employees, these exemptions and discounts may be less appropriate today. By requiring that cars be parked for more than four hours in place of employment, the FBT concession for car parking incentivises individual use of vehicles. A possibility could be to replace these concessions with a concession focused on public transport, carpooling, electric cars or bicycle use, that could apply for small or large businesses.

The concessional treatment of employer-provided cars under the FBT also generates perverse environmental outcomes. This concession subsidises car use without any conditions related to energy efficient cars or overall environmental impact. There are [two ways to calculate the FBT](#) on cars: the statutory formula method (based on the car's cost price) and the operating cost method (based on the costs of operating the car). The size of the FBT benefit increases, the greater the distance driven.

This FBT concession could be removed or refocused on bicycles or public transport options for employees. If an FBT concession for cars is to be retained, it would be better to base the concession on the efficiency (or electric powering) of the vehicle, so that drivers of electric or highly fuel-efficient vehicles receive a concession, while inefficient vehicles are taxed more heavily.

Energy efficient or electric vehicles

The market share of electric vehicles in Australia is small, comprising only 0.2% of [purchases in 2017](#). Of these, businesses bought 63%, private buyers purchased 34% and the government bought the remaining 3%. Australia has no special income tax rules to support take-up of electric or energy efficient vehicles, bicycles or other forms of energy efficient transportation, and to create disincentives for “gas guzzlers”, apart from the fuel taxes described above. In general, the GST applies at a flat rate of 10% (1/11 price-inclusive rate) to all vehicle purchases. Infrastructure Partnerships Australia (2019) [projects that electric vehicle uptake in Australia will increase to above 60% by 2046](#), although Australia’s uptake is projected to be slower than the global trend. This will require significant investment in charging infrastructure in cities.

A luxury car tax [applies](#) to motor vehicles that have a GST-inclusive price over \$67,525. The luxury car tax is 33% of the GST-exclusive value of the car that exceeds the luxury car tax threshold; generally, motor vehicle purchases are only subject to GST. In 2017, 83% of electric vehicle models available in Australia [fell into](#) the luxury vehicle category. A [concession](#) exists for eligible fuel-efficient hybrid or electric motor vehicles, which require as of January 2020, a GST-inclusive price over \$75,526

before the luxury car tax applies. For a car priced at \$100,000 (including GST), this effectively translates to a tax saving of \$2,400 for a hybrid or electric vehicles compared to a conventional vehicle.

Policy options

Policy option 9. Support consumers and businesses to shift to energy efficient or electric vehicles

There are a range of ways in which the tax system, both direct and indirect taxes, could be refocused to support the production or consumption of energy efficient or electric vehicles. For the 2019 election, the Coalition put forward a [national electric vehicle strategy](#), but it did not outline tangible measures. Labor proposed more ambitious incentives to reach a target of one in two new vehicles being electric by 2030.

The luxury car tax threshold could be retargeted to support uptake of electric vehicles in Australia, while the luxury car tax would still apply to all vehicles over the existing or a lower threshold that rely on fossil fuels. As noted above, the FBT car concessions could be refocused on electric cars.

Other countries have experimented with a range of policy options. Norway, for instance, offers an array of tax incentives through its [EV policy](#) for the take-up of zero emission vehicles (hydrogen and electric), and it is now their highest per capita market. The incentives will be reviewed at the end of 2021 and include:

- no purchase/import taxes (1990-),
- exemption from 25% VAT on purchase (2001-2020),
- no annual road tax (1996-),
- no charges on toll roads or ferries (1997- 2017),
- free municipal parking (1999- 2017) and from 2018 a parking fee for EVs was

introduced locally with an upper limit of maximum 50% of full price,

- access to bus lanes (2005-). New rules allow local authorities to limit the access to only include EVs that carry one or more passengers (2016),
- 50% reduced company car tax (2000-2018), later reduced to 40%,
- exemption from 25% VAT on leasing (2015),
- fiscal compensation for scrapping of fossil fuel-based vans when converting to a zero-emission van (2018).

It is important to consider the revenue and equity implications of these measures. Those on higher incomes are most likely to be able to afford an electric vehicle and so any subsidies or tax exemptions will be regressive; however, a retargeted concession aimed at take-up of electric vehicles may still be appropriate. In addition, the choice of energy source should be considered. In Norway, 99% of electricity is [hydropowered](#), in contrast to Australia, where coal and gas [account](#) for [over 75%](#) of electricity generation. This means that electric vehicles are still mostly reliant on fossil fuels in Australia and there remains a compelling argument for improving incentives for the uptake of renewable energy sources in general. This needs to be a comprehensive strategy addressing consumption and production, as studies [have found](#) that consumers overwhelmingly believe car manufacturers are responsible for reducing vehicle emissions.

Further challenges arise in the adoption of electric vehicles in Australia because of the continent's large size, sparse population and substantial distances of travel for many; this may increase the cost and impact of installing charging infrastructure, relative to other countries. On the other hand, most of the Australian population is urbanised and charging infrastructure could be easily

adopted in cities. These issues are broached in the recommendations below and in Policy Brief 2 – Tax and Energy.

Policy option 10. Explore reforms to car registration measures

Car registration fees are flat rate charges levied by State governments. In some states, differential rules apply for energy efficient or hybrid vehicles. Car registration fees could be increased for more environmentally damaging cars, whether older or polluting, relative to hybrid or electric vehicles. However, this requires careful consideration of equity factors.

In Victoria, all [hybrid vehicles](#) and electric-powered passenger cars automatically benefit from a \$100 registration discount (hybrid motorcycles receive a nil registration fee). There are no discounts for electric heavy vehicles or electric motorcycles. On the other hand, [primary producer vehicles](#) in Victoria qualify for reduced registration fees.

The Australian Capital Territory provides an example of different approaches. First, duties paid on a car registration are [calculated](#) both on the price of the car and (for eligible vehicles) on the car's [Green Vehicle](#) rating by the Australian Government, which categorises vehicles from environmentally leading edge models (top rating) to models with below average environmental performance (lowest rating). Second, a [concession](#) of a 20% discount on registration exists for gas and electric powered vehicles, plug-in hybrid vehicles and hydrogen fuel cell vehicles. Previously, the ACT offered Greenfleet with car registrations and renewals as an option to reduce environmental impacts. For an annual tax-deductible subscription of \$40, the Greenfleet organisation would plant 17 native trees in the ACT on behalf of the user, intending to cancel out the vehicle's greenhouse gas emissions and creating

new forests to reduce soil salinity and erosion. Since the Greenfleet subscription was tax deductible, revenue considerations are also relevant.

POLLUTION AND WASTE CLEAN-UP AND PREVENTION

The income tax law provides an immediate deduction for expenditure which has the sole or dominant purpose of “environmental protection activities”. These are pollution prevention, treatment or clean-up activities of a business, income-earning activity, or mining or exploration activity ([Section 40.755](#) of ITAA97). An immediate deduction is also available under Section 40-735 of the ITAA97 on certain expenditure that is incurred on mine site rehabilitation after 1 July 2001, following mining and quarrying operations, exploration or prospecting or ancillary mining activities.

The specific definition of environmental protection activities in section 40-755 of ITAA97 includes the following activities carried on by, or for, the taxpayer:

- a) *preventing, fighting or remedying:*
- i) *pollution resulting, or likely to result, from the taxpayer’s earning activity; or*
 - ii) *pollution of or from the site of the taxpayer’s earning activity; or*
 - iii) *pollution of or from a site where an entity was carrying on any business that the taxpayer has acquired and carry on substantially unchanged as your earning activity;*
- b) *treating, cleaning up, removing or storing:*
- i) *waste resulting, or likely to result, from the taxpayer’s earning activity; or*
 - ii) *waste that is on or from the site of the taxpayer’s earning activity; or*

- iii) *waste that is on or from a site where an entity was carrying on any business that the taxpayer has acquired and carry on substantially unchanged as your earning activity.*

This provision provides a deduction for taxpaying entities operating on a site, mainly businesses, reduced by any GST input tax credits. The provision does not require the clean up or waste treatment to be a regulatory obligation of the taxpayer and applies to waste or pollution that had its source onsite but extends offsite.

However, there are some limits to this provision and uncertainties in its interpretation. For example, the Commissioner does not accept that erosion of land (such as dunes into the sea) is “pollution” for this provision ([Joseph 2013](#)). There is no deduction for expenditure incurred by an entity that is not carrying out (or previously carried out) an income-earning activity that caused the pollution or waste; is on the site of the business; or was produced by a previous business carried out on that site; and there is doubt as to whether simply holding and leasing land to generate income qualifies as an “income-earning activity” for this purpose ([Joseph 2013](#)).

There is no deduction under Section 40-755 for the cost of:

- acquiring land,
- constructing a building, structure or structural improvement to the land,
- altering or improving an existing building or structural improvement, or
- plant and equipment that would otherwise be deductible under the general capital allowance rules, for example because it is used in the ordinary course of the business, or

- a bond or security (however described) for performing environmental protection activities.

No deduction is available where a site is held only for producing capital gain (not business income). Finally, no deduction is provided for relevant expenditure incurred by a private individual where the activity or site is for private use, or for expenditure by an entity deriving exempt income (or itself being exempt from tax).

Policy options

Policy option 11. Review eligibility for deductions for pollution clean-up costs

The environmental rehabilitation and pollution clean-up rules in the income tax are focused on business expenses and do not provide any subsidy for clean up or pollution prevention costs on private land. Where other rules would apply for a taxpayer in relation to pollution clean-up activity, such as equipment depreciation rules, these other rules prevail although they would be less generous. As explained below, accelerated depreciation rules apply to clean up or prevention equipment, or to new equipment for these purposes. A review of the use, design and effectiveness of these rules is timely. It would need to take account of both environmental and tax policy goals of the deduction.

Clean technology, plant and equipment

The income tax law provides general rules for deduction of expenses, or for capital allowances (depreciation), for the cost of plant, equipment and buildings used in a business or other income-producing activity (Division 40 ITAA97).

The depreciation rate for capital allowances is prepared by reference to estimates made of the effective life of depreciating assets. It

does not draw distinctions based on pollution prevention, environmental or clean technology features of capital plant and equipment. Taxpayers may follow the Commissioner's schedule of depreciation rates or may choose to depreciate an asset by estimating its effective life as used in that business. Intellectual property (such as patents or registered designs) including on environmentally friendly processes or equipment is also able to be depreciated over designated periods.

The capital cost of investment in "clean" technology used in a business or income-producing activity, such as equipment that will use less energy, or produce less pollution, is depreciable under the general rules but attracts no additional tax concession or subsidy.

On the other hand, some plant and equipment used in resource-intensive or polluting industries is eligible for a "capped" effective life which provides accelerated depreciation for that plant and equipment. Assets including airplanes, buses, trucks, oil and gas assets, harvesters and tractors in the oil and gas, primary production and airline industries are eligible for "capped" effective lives, reducing their after-tax cost. For example, the capped effective life for aircraft is set by legislation at 10 years, even though the Commissioner of Taxation found that commercial airliner may be expected to be in use for 20 years or more.

There are no special deductions for capital expenditure on structural improvements or alterations to a building to use less energy or to reduce pollution; general rules for building depreciation may apply (Division 43 of ITAA97).

Small businesses (under \$10 million annual turnover) are eligible for an ['instant asset write-off'](#) which is an immediate deduction for plant and equipment up to \$30,000 for

each asset (up until 11 March 2020). In response to COVID-19, from 12 March 2020 until 30 June 2020 the instant asset write-off is significantly expanded:

- threshold amount for each asset is \$150,000 (up from \$30,000)
- businesses with an aggregated turnover of up to \$500 million (up from \$50 million) are eligible.

From 1 July 2020 the instant asset write-off will only be available for small businesses with a turnover of less than \$10 million and the threshold will be \$1,000.

Neither the pre-existing instant asset write-off nor the COVID19 expansion is targeted based on energy-reduction or pollution prevention goals. The concession is utilised by many businesses to purchase vehicles (the two examples on the ATO website refer to purchase of a van and a ute, respectively). These vehicles are mostly fossil-fuel based.

In 2018, the ALP proposed to expand accelerated depreciation of plant, equipment and intangibles in its '[Australian Investment Guarantee](#)', and to extend eligibility to businesses of any size. This permits a deduction for 20% of the capital cost of new assets exceeding a cost of \$20,000, in the first year of operation. There is no targeting towards energy-reduction or pollution prevention assets. Again, this is likely to be used by many businesses for purchase of vehicles powered by fossil fuels. The estimated fiscal cost of this measure is about \$1.8 billion each year.

Private consumers are not entitled to any deduction for the cost of investment in buildings, plant or equipment used for personal consumption, such as in their own home. To support take-up of environmentally efficient equipment by private consumers, subsidies may be

required, as in the case of household solar power (see Policy Brief 2). Alternatively, a higher tax could be levied to increase the price of polluting or less energy efficient household equipment.

Policy options

Policy option 12. Target business instant asset write-off concessions towards energy efficient capital investments and explore accelerated depreciation for upgrade to equipment that achieves specified environmental efficiency gains

Capital allowance depreciation and accelerated business investment deductions for plant, equipment and buildings should be reviewed with the goal of targeting these towards environmentally friendly or energy efficient assets. Alternatively, it may be appropriate to provide businesses with a larger concession or accelerated depreciation for the cost of environmentally efficient or pollution prevention plant and equipment. The tax 'caps' that provide accelerated depreciation for inefficient and polluting equipment should be removed.

Further issues: pollution and waste

We address land rehabilitation and conservation in Policy Brief 3. A range of further issues relating to waste generation and disposal and potential tax or fiscal measures to address them, is listed here.

- Recycling and waste levies (e.g. the [NSW waste levy](#)).
- Tax on polluting items and activities, such as a plastic tax; higher GST on fast fashion to better include in price the environmental costs of production (water, electricity) and the costs of disposal or recycling for local councils. An alternative is a scheme like Germany's [Packaging Act](#), with rules for increased recycling and provisions to

ensure that businesses using packaging also pay for their collection and recycling.

- Plastics production and use – the “plastic tax”.
- Dumping fees at the State or local level and interstate competition (for instance, dumping materials in Yass [to avoid cost of disposal](#) in the ACT).

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