Australian Government
Productivity Commission

December 2023

Towards Levyathan? Industry levies in Australia

Research paper

The Productivity Commission acknowledges the Traditional Owners of Country throughout Australia and their continuing connection to land, waters and community. We pay our respects to their Cultures, Country and Elders past and present.

The Productivity Commission

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Executive summary

Industry levies – narrowly applied, sector-specific taxes – are proliferating in Australia. There were four industry levies in 1960, 26 in 1980 and today there are 248. Levies now raise more than six times the revenue of tariffs and are imposed on a broader range of firms but have received much less policy attention. No guidelines exist for assessing the policy value of individual industry levy proposals. Moreover, little is known about their collective impact on productivity growth, industry behaviour, and the Australian economy.

Australia used to have a single levy system, administered by the various incarnations of the Commonwealth Agriculture department in cooperation with the agricultural sector. That system still exists. But this research paper reveals that an ever-growing grab-bag of micro-taxes administered or collected by around 70 different State and Commonwealth departments has overtaken it in revenue terms.

The traditional Australian industry levy was a way for a sector to get together and ensure that businesses contributed to the funding of collective services within that sector. In agriculture this generally means a group of primary producers agreeing to pay a proportion of their revenue to collectively fund research and development (R&D) with fund-matching by government, marketing programs, and plant and animal health protections. Overall, this paper finds that the evidence to support agricultural R&D is positive, though the degree to which these positive returns are the result of funds being raised through industry levies, as opposed to other funding mechanisms, is less clear.

This paper provides an initial overview of Australian industry levies, which collectively raise about $11 billion per year, of which only $0.6 billion is from Agricultural levies. The new breed of levies has been imposed on a growing range of sectors that, unlike the agricultural sector, have not requested them. They are charged by more jurisdictions, to fund a growing number of policy goals, and publicly justified with a growing range of policy rationales. Some have been imposed simply to raise general tax revenue.

Industry levies are the long tail of Australia's tax system, where 10 taxes collect more than 90% of overall tax revenue, industry levies raise less than 2%. Their design also tends to deviate from the general principles of good tax system design, by being narrowly applied to more distortive and less efficient tax bases – transactions, revenue, and inputs to production. The available data in the agricultural sector suggests they are also generally more expensive to collect than Australia's major taxes.

In specific circumstances, there is a public policy case for some industry levies. This research paper provides a framework for thinking through the economics of levies, setting out the thresholds that should be passed in assessing the public policy case for an industry levy. The intent is to assist policymakers when deciding whether to support industry levy proposals and how they might be best designed.

The growth in the number and application of industry levies over recent decades suggests that alternative considerations may have played a role in their imposition by governments. It is possible that governments believe that 'levies' on narrow sections of industry are likely to face less community opposition than 'taxes' on a broader range of sectors or households. In addition, self-imposed fiscal constraints, and associated Australian Government budget rules may have also played a role.

A growing body of inefficient taxes is likely to weigh on productivity growth. Promoting policy discipline in the design of industry levies and avoiding policy settings that inadvertently encourage deviations from good tax system design, will be an important part of establishing and maintaining sound policy foundations for Australia's future productivity growth.

Acknowledgments

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The results of this study is based, in part, on data supplied to the ABS under the *Taxation Administration Act 1953*, *A New Tax System (Australian Business Number) Act 1999*, *Australian Border Force Act 2015*, *Social Security (Administration) Act 1999*, *A New Tax System (Family Assistance) (Administration) Act 1999*, *Paid Parental Leave Act 2010* and/or the *Student Assistance Act 1973*. Such data may only used for the purpose of administering the *Census and Statistics Act 1905* or performance of functions of the ABS as set out in section 6 of the *Australian Bureau of Statistics Act 1975*. No individual information collected under the *Census and Statistics Act 1905* is provided back to custodians for administrative or regulatory purposes. Any discussion of data limitations or weaknesses is in the context of using the data for statistical purposes and is not related to the ability of the data to support the Australian Taxation Office, Australian Business Register, Department of Social Services and/or Department of Home Affairs' core operational requirements.

Legislative requirements to ensure privacy and secrecy of these data have been followed. For access to MADIP and/or BLADE data under section 16A of the ABS Act 1975 or enabled by section 15 of the *Census and Statistics (Information Release and Access) Determination 2018*, source data are de-identified and so data about specific individuals has not been viewed in conducting this analysis. In accordance with the *Census and Statistics Act 1905*, results have been treated where necessary to ensure that they are not likely to enable identification of a particular person or organisation.

Contents

1. The evolution of industry levies in Australia

Key points

- **The number of industry levies has grown notably over recent decades.**
  - The number of industry levies increased from just 26 in 1980 to 248 today.
  - Industry levies constitute the 'long tail' of Australia's taxation system, with Australia's industry levies collecting less than 2% of overall tax revenue.
- **As they have grown in number, industry levies have been imposed:**
  - **on a broader range of sectors**: after starting in agriculture, levies have come to be imposed on a range of sectors including finance, energy, mining, construction, gambling, aviation, and manufacturing.
  - **in pursuit of a broader range of policy goals**: levies are now used for a wide range of stated policy purposes.
  - **by a broader range of jurisdictions**: after being predominantly imposed by the Australian Government, industry levies are now imposed by all state and territory governments.
- **As industry levies have proliferated, they have moved away from Australia's original system of agricultural levies and have increasingly become a form of ad-hoc micro-taxation.**

1.1 Industry Levies in Australia

Industry levies have existed in Australia since 1929 when the Wine Grape Levy was introduced to finance marketing and research & development for the grape industry. Prior to the introduction of the levy, there was a perceived underinvestment by the sector in these activities, with individual grape growers reluctant to undertake these activities given their limited ability to stop other grape growers from 'free riding' off their individual investments (PC 2011, p. XVIII).

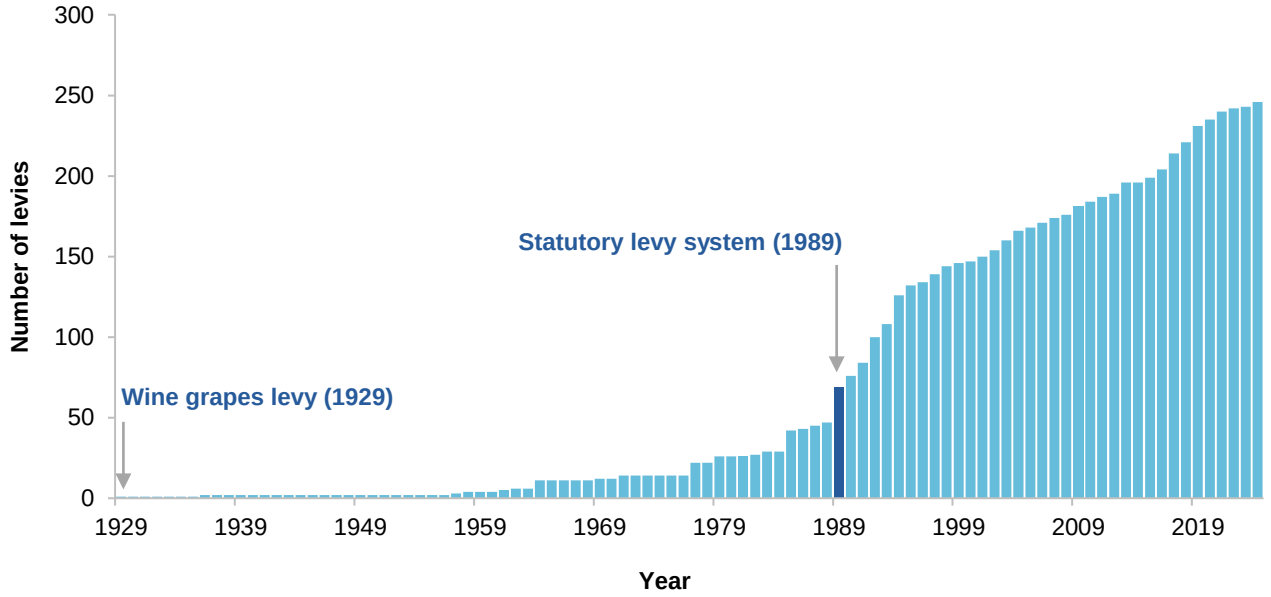
Over subsequent decades this model was progressively extended to a wider range of agricultural primary producers. In 1989, the Australian Government formalised the agricultural levy system through the *Primary Industries and Energy Research and Development Act 1989*. This Act established 4 statutory Research and Development Corporations to administer certain levy revenues and legislated rules for their use. In 1997, official guidance on establishing new industry levies, and designing levy payer voting systems to amend existing levies, was published (DAFF 2009, pp. 2-6). In 2023 the Government introduced the *Modernising agricultural levies legislation* to update the agricultural levy system.

After the 1980s, industry levies moved beyond agriculture, and were increasingly imposed on a wider range of sectors, to fund a growing range of policy interventions, by a growing range of jurisdictions (section 1.2). This evolution has underpinned ongoing growth in the number of industry levies in Australia (figure 1.1).

While other countries employ similar policies to achieve specific goals, these are often not labelled as 'levies'. In the absence of a stocktake of industry levies in peer countries, it is unclear to what extent Australia is a leader in the use of industry levy style policies, even if we appear to be a leader in the use of the term 'levy' (appendix E). Nevertheless, consultation over the course of this project revealed a sense that Australia's system of agricultural levies is unique in its breadth and usage by government.

For the purpose of this paper, the Commission's stocktake of industry levies includes any tax imposed on narrow sections of industry that is called a 'levy'.[1] Instruments that operate broadly in the same way, even if they do not include the term 'levy' in their title are also included (appendix B).

Figure 1.1 – The number of industry levies has grown substantially in Australia[a]



a. The Statutory levy system was established through setting legislative rules around the operation of the levy system.

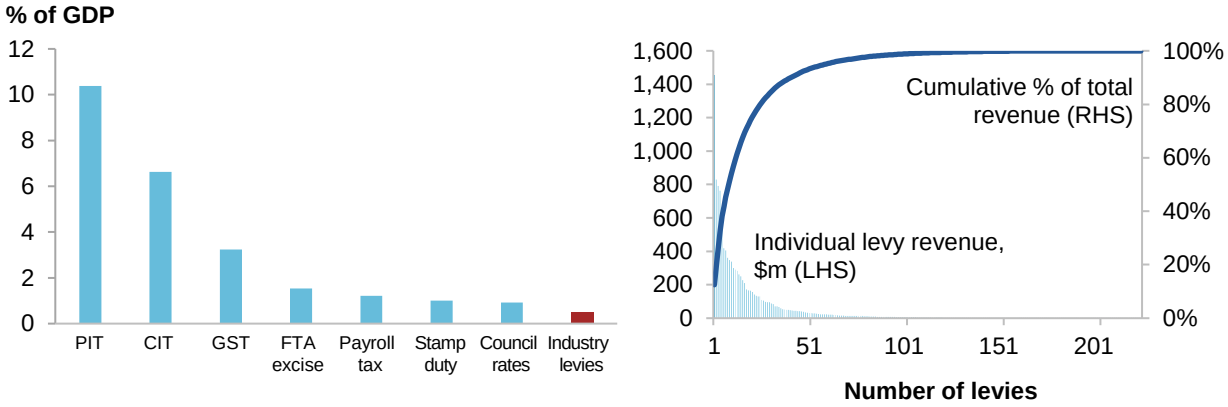
Source: Productivity Commission stocktake file (2023, appendix B).

Industry levies have grown to become the 'long tail' of Australia's tax system – constituting the largest number of taxes in Australia, but only collecting a relatively small share of overall tax revenue. The Productivity Commission has identified 248 industry levies, with revenue data available for 226 of them (appendix B). Where 10 taxes collect more than 90% of overall tax revenue in Australia, the industry levies where individual revenue data is available only collect less than 2% of overall taxation revenue (figure 1.2). Within the levy system itself there is also a long tail, with the nine largest industry levies accounting for more than 50% of revenue collected by all industry levies. The top 42 account for more than 90% of the revenue collected (figure 1.2).

[1] Levies imposed on individuals and a broad range of businesses are not included in the stocktake, These include levies implemented through the personal income tax system (e.g. Medicare Levy), levies on vehicle registration fees (e.g. Motorcycle Safety Levy), and levies on payroll tax (e.g. Mental Health Levy). Voluntary industry levies are also not included in the stocktake.

Figure 1.2 – Industry levies are the long tail within the long tail of taxes

Revenue collected by select taxes in Australia as a % of GDP (left) and levy revenue by number of levies (right)



Source: Commission estimates based on ABS (2023, *Taxation Revenue, Australia, 2021-22*, tables 1-10), Productivity Commission stocktake file (2023, appendix B). FTA = Fuel, tobacco, and alcohol.

1.2 Evolution of Industry Levies

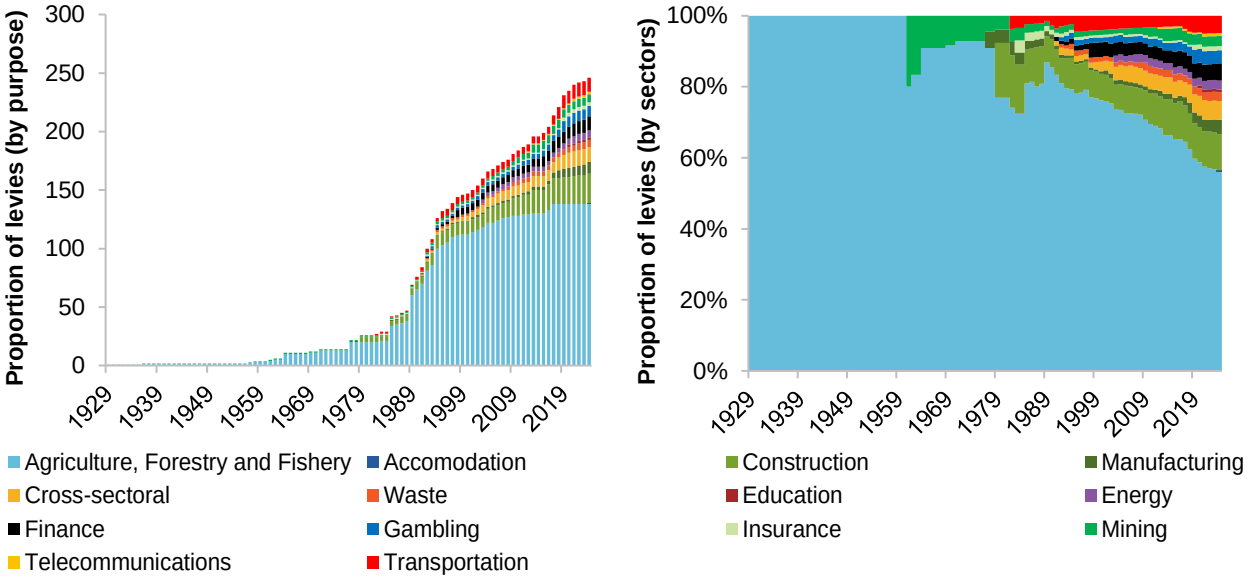
Industry levies have spread throughout the Australian economy

Since the first levy was introduced, industry levies have spread throughout the Australian economy.

Broader range of sectors – after starting in agriculture, industry levies are now imposed on a broad range of sectors including telecommunications, banking, insurance, energy, manufacturing, gambling, insurance and construction (figures 1.3).

Figure 1.3 – Industry levies are now imposed on a broad range of sectors

Number of industry levies (left) and proportion of industry levies (right), by sector

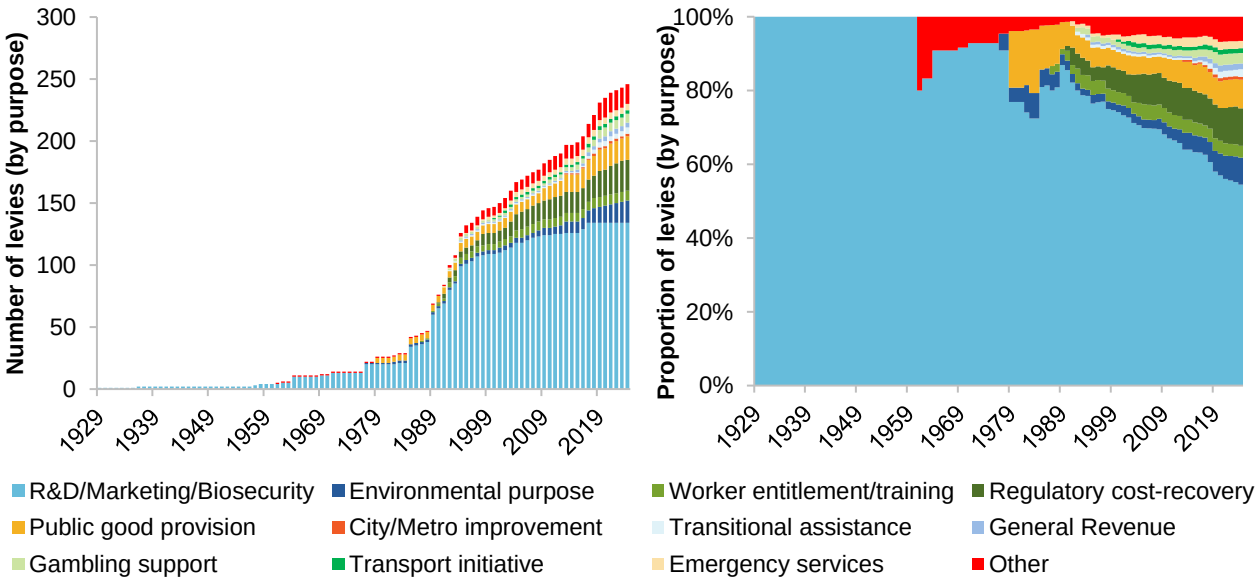


Source: Productivity Commission stocktake file (2023, appendix B).

Broader range of stated policy goals – industry levies are no longer just used to fund sectoral R&D or industry marketing. They are now used to ostensibly fund a growing range of policy goals (figure 1.4).

Figure 1.4 – Industry levies now serve many different stated policy purposes[a]

Number of levies (left) and proportion of industry levies (right), by stated purpose



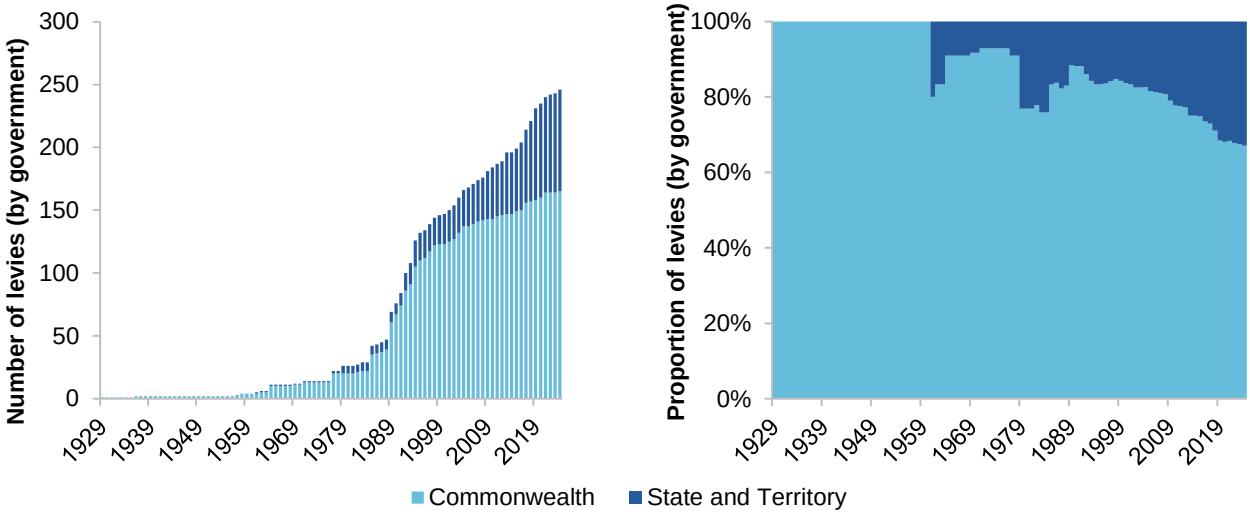
a. The categories in the graph only reflect the described purpose of each levy. They do not constitute a judgement of the policy outcomes achieved by industry levies.

Source: Productivity Commission stocktake file (2023, appendix B).

Broader range of jurisdictions – after being imposed almost exclusively by the Australian Government for much of the 20th century, recent decades have seen industry levies increasingly imposed by state and territory governments (figure 1.5).

Figure 1.5 – More industry levies are imposed by state and territory governments

Number of industry levies (left) and proportion of industry levies (right), by level of government



Source: Productivity Commission stocktake file (2023, appendix B).

Finding 1.1

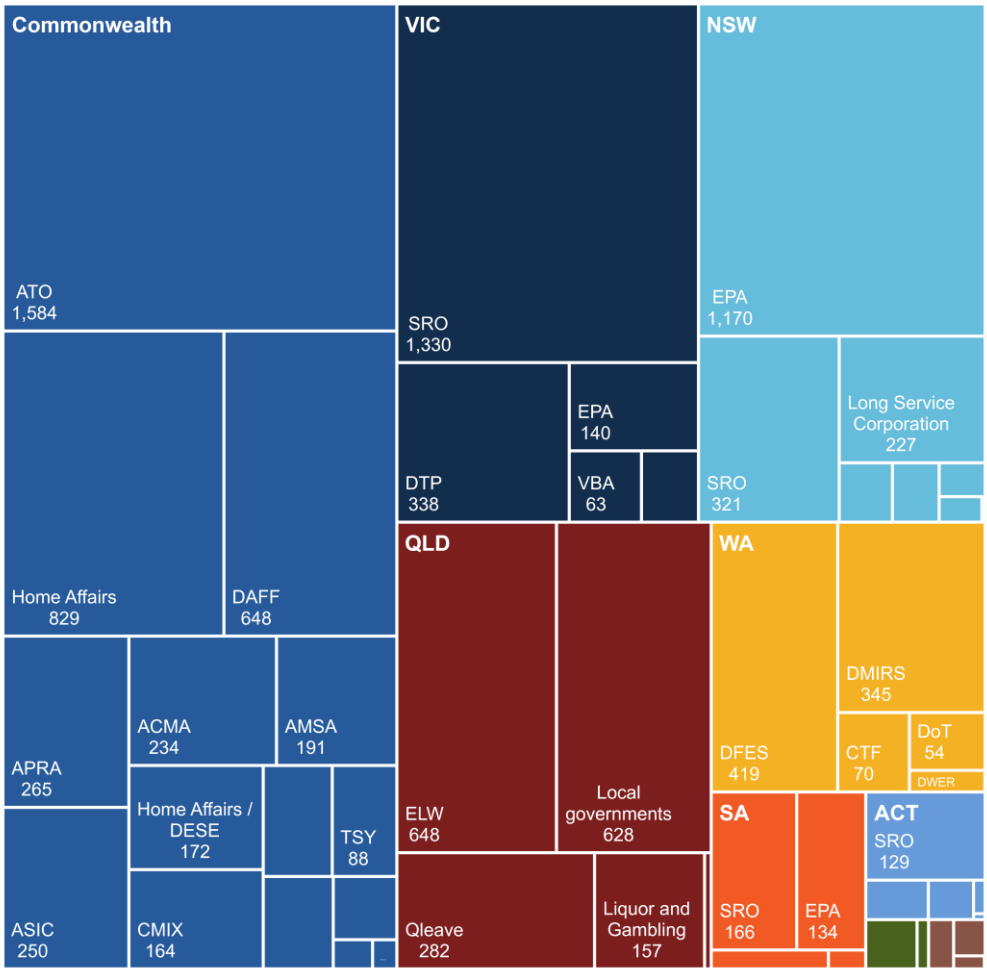
Industry levies have proliferated over recent decades, expanded across a range of sectors, in pursuit of a wider range of policy goals

The growth in the number of industry levies has been substantial, increasing from just 26 in 1980 to 248 today. Such growth reflects the increased diversity of industry levies across multiple dimensions. Levies are now imposed on a broader range of sectors, serve a wider variety of policy goals, and are imposed by a wider range of jurisdictions.

At the same time, a growing range of government departments have become involved in industry levies – the Commission identified about 70 federal, state, and territory agencies that are now involved in the administration or collection of industry levies (figure 1.6).

Figure 1.6 – Industry levies are administered by a wide range of government agencies[a]

Revenue of industry levies, by level of government and government agency



a. Due to the substantial differences in revenue sizes collected by each government agency, the figure does not display the names of all government agencies that collect or administer levies. A complete list of levy-collecting or administering government agencies can be found in the stocktake file (appendix B). The size of the boxes are proportional to the amount of revenue collected.

Source: Productivity Commission stocktake file (2023, appendix B).

Finding 1.2
Consolidating collection agencies could be sensible

There are about 70 agencies collecting or administering levies on behalf of different governments. The cost of collection for some of these agencies is generally higher than the Australian Tax Office (ATO)'s cost of $0.57 per $100 collected in 2020-21 (ATO 2023).

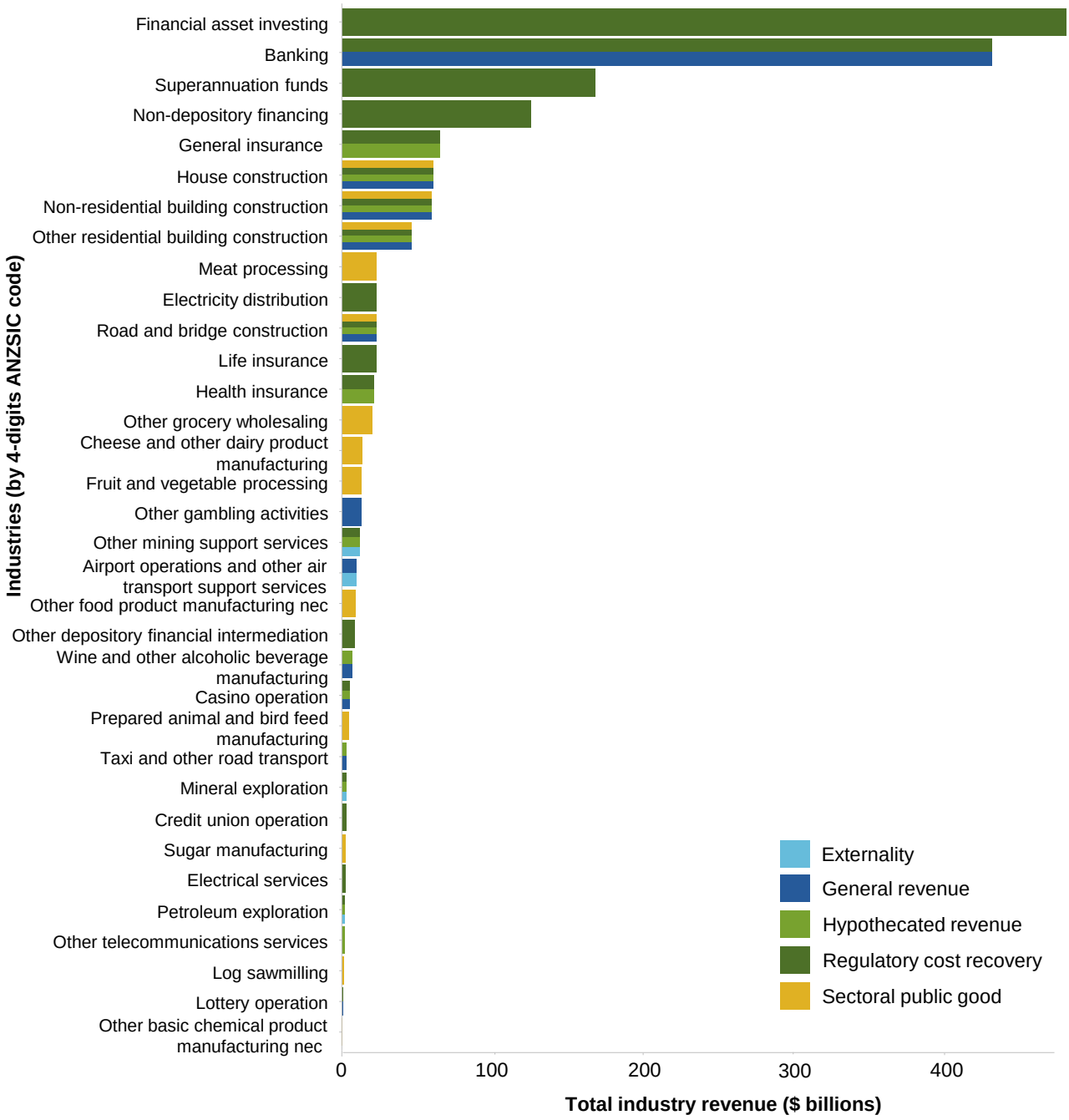
Recommendation: the Australian, state and territory governments should weigh the merits of using either its tax collecting agencies (ATO or State Revenue Office) or a single alternative agency to collect all levies within its jurisdiction. Where levies are collected at a cost that is significantly less than the ATO benchmark, those agencies should continue to collect the relevant levies. This should be periodically reviewed by the relevant tax agency.

Implementation: each jurisdiction should undertake an independent review, lasting no longer than 6 months, to investigate the different costs of collecting levies and recommend which agency, if any, should be responsible for collecting levies in addition to the tax collecting agency. Where relevant, the review should nominate a timeline for any proposed transfer of levy collection responsibility.

Levies are increasingly imposed on big and concentrated sectors

As industry levies have moved outside of the agricultural sector, they have been imposed on high revenue sectors, and in sectors dominated by a small number of companies. These industry levies have principally been imposed either as a regulatory cost-recovery levy – where the government explicitly requires a sector to pay for regulation relating to it – or simply to raise general taxation revenue (figure 1.7 and 1.8).

Figure 1.7 – Industry revenue by stated levy purpose, 2018-19[a]

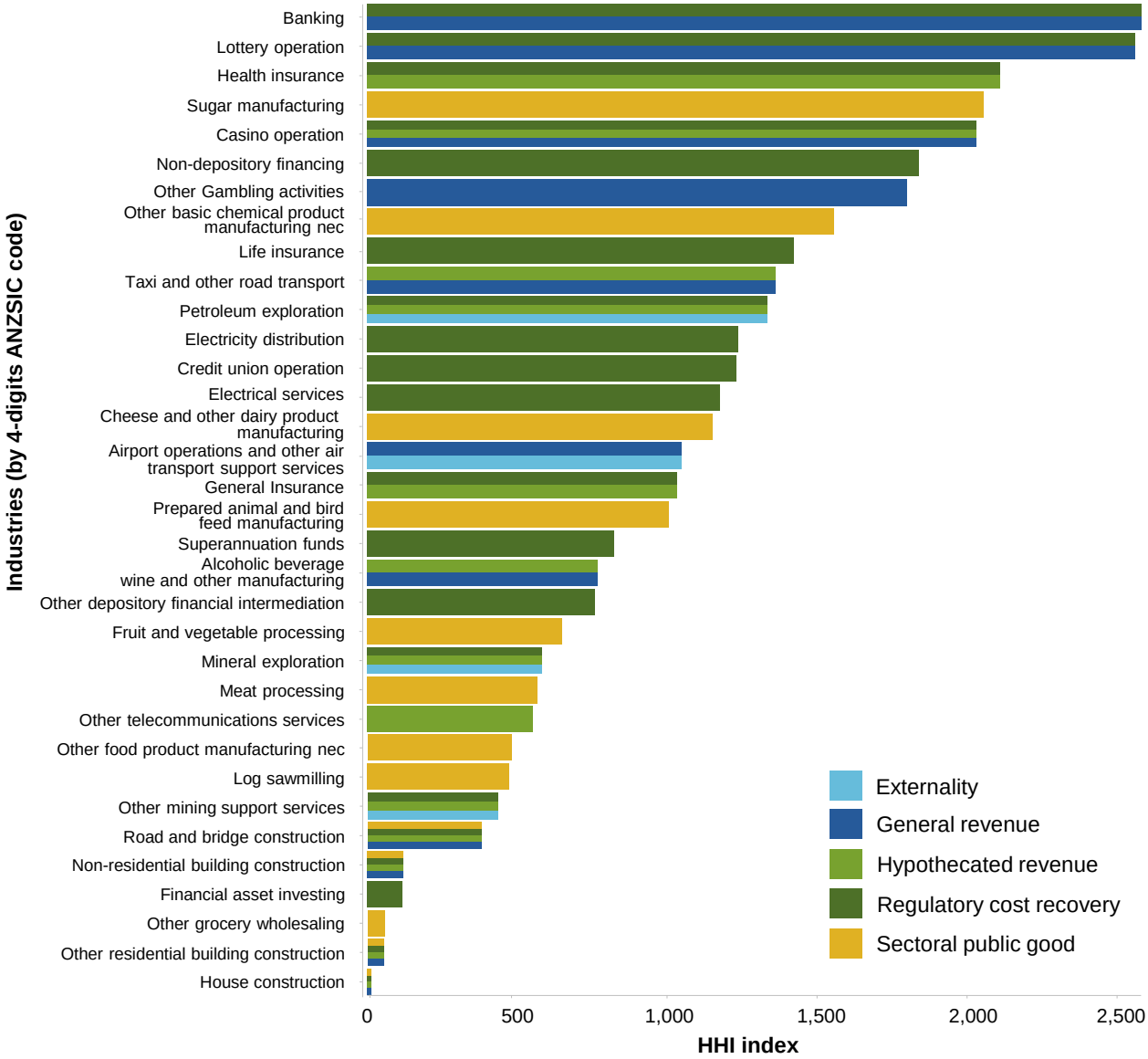


a. Levies are mapped into BLADE using ANZSIC four-digit industry codes. The revenue for each industry is estimated using the BLADE dataset. Details on the mapping methodology can be found in appendix D.

Source: Commission estimates based on *Business Longitudinal Analysis Data Environment (BLADE), 2018-19*, ABS DataLab.

As a result, industry levies in non-agricultural sectors are collecting substantially higher revenue – while most levies are concentrated in agriculture, the revenue collected by agricultural levies only account for a small proportion of total levy revenue collected (figure 1.9).

Figure 1.8 – Industry concentration by stated levy purpose, 2018-19[a]

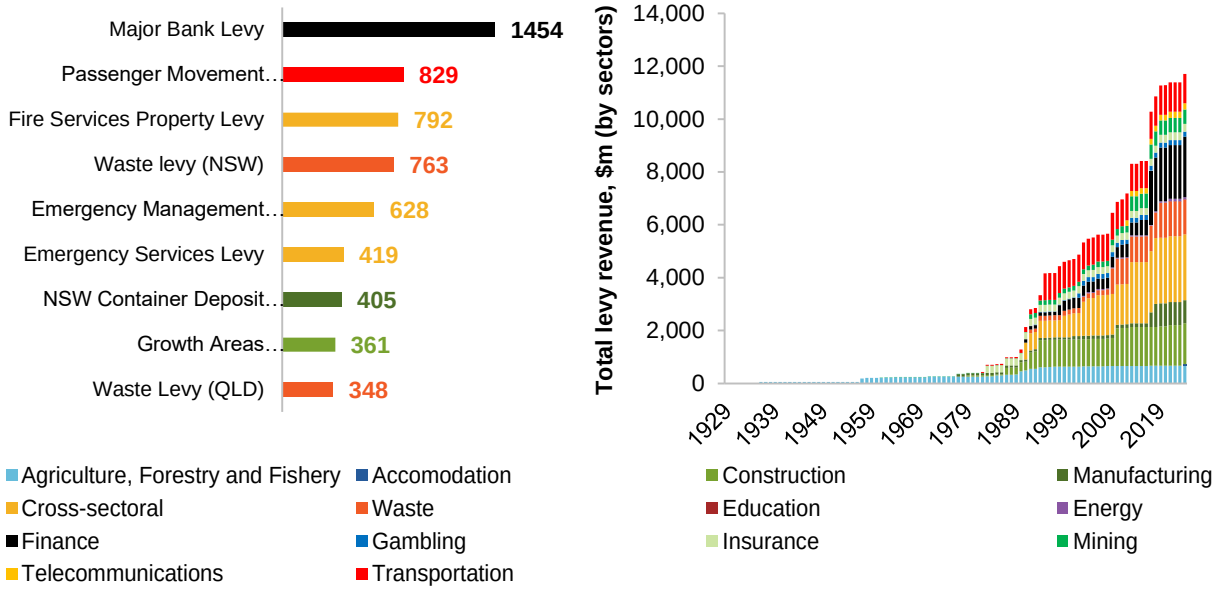


a. Levies are mapped into BLADE using ANZSIC four digit industry codes. The Herfindahl-Hirschman Index (HHI) for each industry is estimated using the BLADE dataset. Details on the mapping methodology can be found in appendix D.

Source: Commission estimates based on *Business Longitudinal Analysis Data Environment (BLADE),* 2018-19, ABS DataLab.

Figure 1.9 – Levies in non-agricultural sectors collect substantially higher revenue

Industry levy revenue ($m) of top-9 levies (left) and latest revenue[a] decomposed by sectors and year of introduction (right)

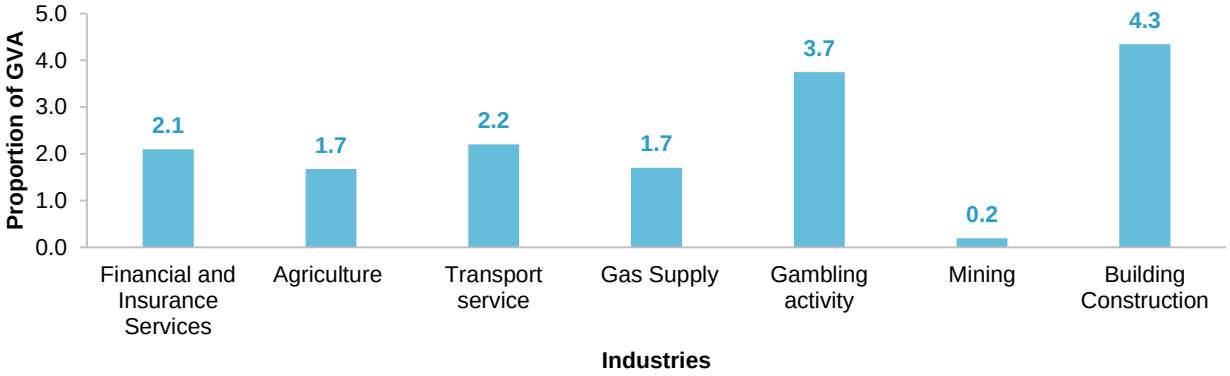


a. Levy revenues from 2023-23 are included in the total levy revenue starting from the year of their introduction. Due to data limitations, some levies do not annually report revenues. In these cases, the most recent available revenue figure is used as a constant representation for that levy across all years.
Source: Productivity Commission stocktake file (2023, appendix B).

Despite the uneven distribution across sectors, the total levy revenue collected from each sector is broadly comparable in proportion of industry gross value added terms (GVA);[2] except in the gambling and construction sectors, which have relatively high levy revenue, and mining which has relatively low levy revenue (figure 1.10).

Figure 1.10 – The relative size of levy revenue is similar across different sectors

Levy revenue expressed as a proportion of industry GVA, by industry[a]



a. Levy revenue by industry is calculated by summing up all levy revenue by the associated one-digit ANZSIC industry codes.

Source: Productivity Commission stocktake file (2023, appendix B); ABS (2022, *Australian System of National Accounts, 2021-22*, Cat. No. 5204.0, table 5) and ABS (2023, *Australian Industry,* 2021-22, Australian industry by subdivision).

[2] Noting that the industry GVA is not equivalent to the total revenue of the levied industries because the 1-digit ANZSIC code industries are too broad to reflect the exact levied businesses. For example, for the financial industry, the major bank levy only applies to the top four banks, and therefore, the rest of the banks in that industry are not subject to the levy but are still included in the industry GVA.

Industry levies have become a growing source of micro taxation

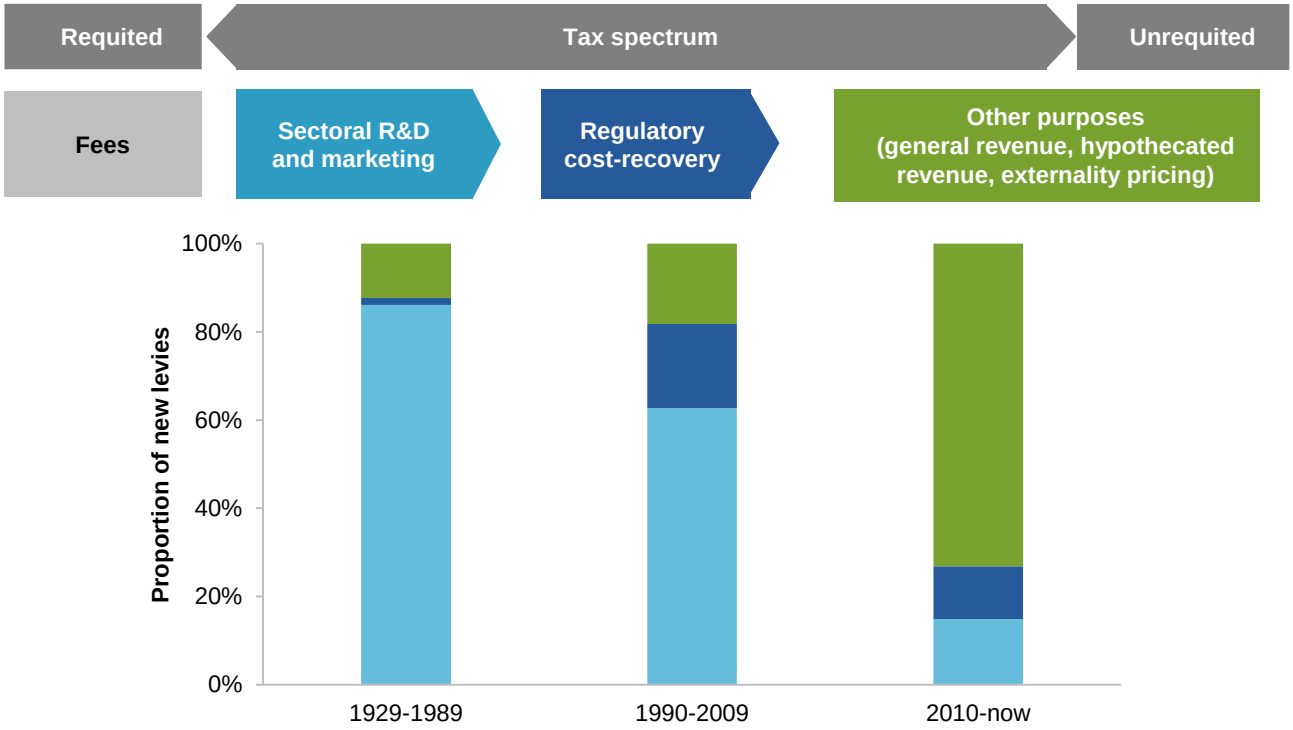
Taxes are defined as being compulsory and unrequited payments to government. That is, taxpayers must pay taxes to government (compulsory), but they do not directly receive anything in return for those payments (unrequited). While tax revenue collected from broader-based taxes is used to fund a range of government services that the general community benefits from, the ability to access these services is not determined by the level of tax paid by individual taxpayers – you don't have to show your tax return to the doctors at the emergency department – and is therefore unrequited.

By contrast, the traditional agriculture levy is compulsory and, at least broadly, requited – levy payers have to pay them, but they can broadly expect to receive something in return for their payments. Perhaps not directly, but at the level of the industry more generally (for example industry marketing services, sectoral R&D, and biosecurity protections). It is partly for this reason that individual agricultural sectors requested that levies be imposed upon them and continue to vote for their maintenance over time – they judge that they are receiving something in return for their levy payments.

Although there is no clear legal distinction between general taxes and levies (box 1.1), traditionally, the degree of 'requited-ness' appears to have motivated the use of the term 'levy' over 'tax'. As industry levies have evolved, their scope has expanded, and new levies are progressively becoming more unrequited. Some of these new levies are used to fund sectoral regulation, which these sectors will be subject to regardless of whether individual firms in the sector have paid the levy. Other levies are used simply to raise general tax revenue or to fund environmental protection activities that do not directly benefit levy payers. Hence, the new levies have become more akin to general taxation (figure 1.11).

Figure 1.11 – New industry levies are increasingly becoming unrequited taxes

Proportion of new levies, by levy purpose and time period



a. Other purposes category contains levies that are used to correct industry externalities – such as environmental protections – or raising revenue for broader public purposes that offer minimal benefit to the levy payers.

Source: Productivity Commission stocktake file (2023, appendix B).

Box 1.1 – The legal definition of levies

There is no clear legal distinction between a tax and a levy. Levies are imposed through taxation powers, requiring a taxation Act (Department of Finance 2023a).

The term levy has tended to be used where the levy revenue is used for industry purposes. For example, Parliamentary research suggested that the term levy is used as a moniker for a tax "particularly if revenue is used for industry purposes" (Dale 2014, p. 20).

Legal cases also demonstrate that whether a levy directly benefits levy payers is not a determining factor when distinguishing between a levy and a tax. Instead, this concept has been used to differentiate between a fee and a tax (the two relevant court cases include *Harper v Victoria* and *Parton v Milk Board*). Consequently, from a legal perspective, levies are another form of taxation. Further, the High Court of Australia's definition of tax does not consider the extent to which a direct service is provided to the payer. The High Court in *Matthews v Chicory Marketing Board* defined a tax as "a compulsory exaction of money by a public authority for public purposes, enforceable by law, and is not a payment for services rendered" (Marabito and Barkoczy 1996, p. 47).

2. A framework to assess the policy case for industry levies

Key points

- **Efficient tax systems are a key policy foundation for productivity growth. Policy measures that reduce the efficiency of the tax system can be expected to weigh on productivity growth over time.**
- **Industry levies generally appear to be at odds with the features of efficient tax system design. They are definitionally narrow in their application, often levied on inefficient tax bases, and can come with high collection costs.**
- **In specific cases, there are legitimate policy cases for industry levies. Under certain conditions, these can include the funding of sectoral public goods, the direct or indirect pricing of sectoral externalities, and charging industries for their regulation.**
- **The case for pursuing equity goals through industry levies is likely to be the exception than the rule. Governments that wish to pursue equity goals through industry levies should do so with awareness of the potential costs to the efficiency, and equity, of Australia's tax and transfer system.**
- **Ensuring that certain conditions are met before proceeding with a proposed industry levy, or choosing to maintain an existing industry levy, will be important if industry levies are not to become a growing source of inefficiency in Australia's tax system.**

At first glance, industry levies seem to be at odds with the general principles of good tax system design. Where tax system design principles emphasise the broad taxation of efficient tax bases, industry levies are definitionally narrowly, and commonly applied to less efficient tax bases – transactions, revenue, and inputs to production. Industry levies also tend to come with higher collection costs than Australia's major taxes.

There are cases where industry levies can be consistent with good tax system design. Potential examples include the funding of sectoral public goods, the direct or indirect pricing of sectoral externalities and the funding of a sectors regulation. But only in certain circumstances. There may also be cases where equity considerations are taken to justify the efficiency costs of industry levies that fail to satisfy these criteria, but equity goals are likely to be better achieved through the broader tax and transfer system. Governments seeking to pursue equity goals through industry levies should do so with an appreciation of the limitations of doing so, and the likely trade-offs for the efficiency of the tax system.

Cases where industry levies are consistent with good tax system design are likely to be more restricted than suggested by the range of policy tasks currently asked of the growing number of industry levies in Australia.

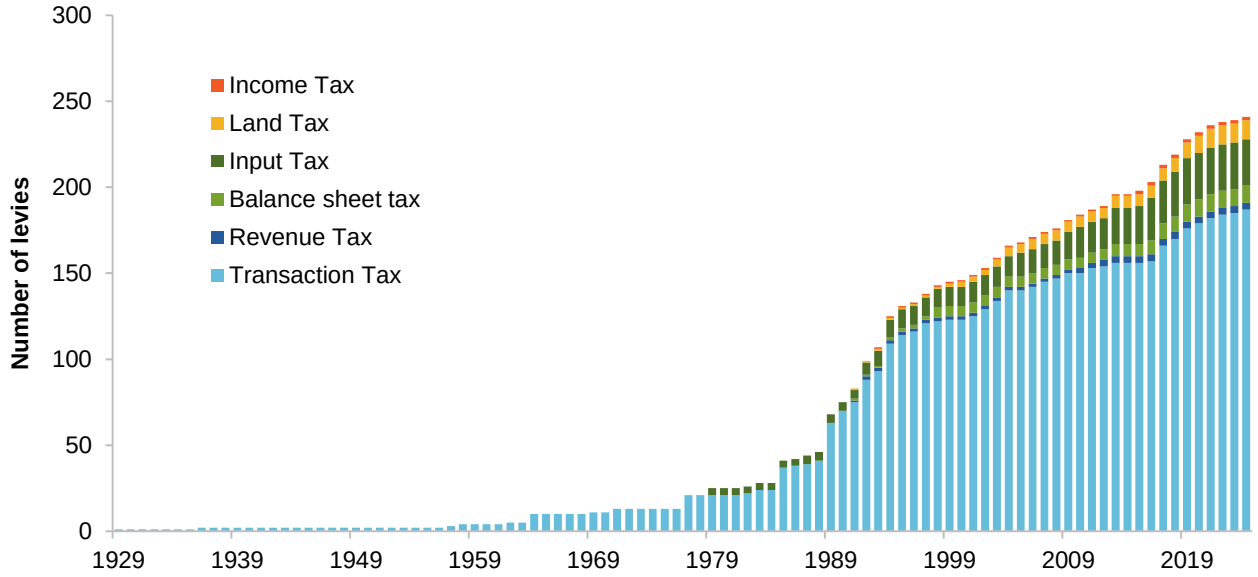
2.1 Industry levies appear to conflict with good tax system design

Industry levies are generally less efficient

Where general tax system design principles emphasise the broad taxation of efficient tax bases (Australian Government 2015; Henry 2009), industry levies are narrowly applied, and often to less efficient tax bases – transactions, revenue, or inputs to production. They are narrow because they only apply to the output of a particular sector, as opposed to company income taxes that apply to a broad range of sectors, and the GST, which applies to a broad range of goods and services.

More than 75% of the levies identified in this research paper are levied on transactions, a number are levied on broader inputs to production (such as labour), while others are levied on revenue and assets (figure 2.1).

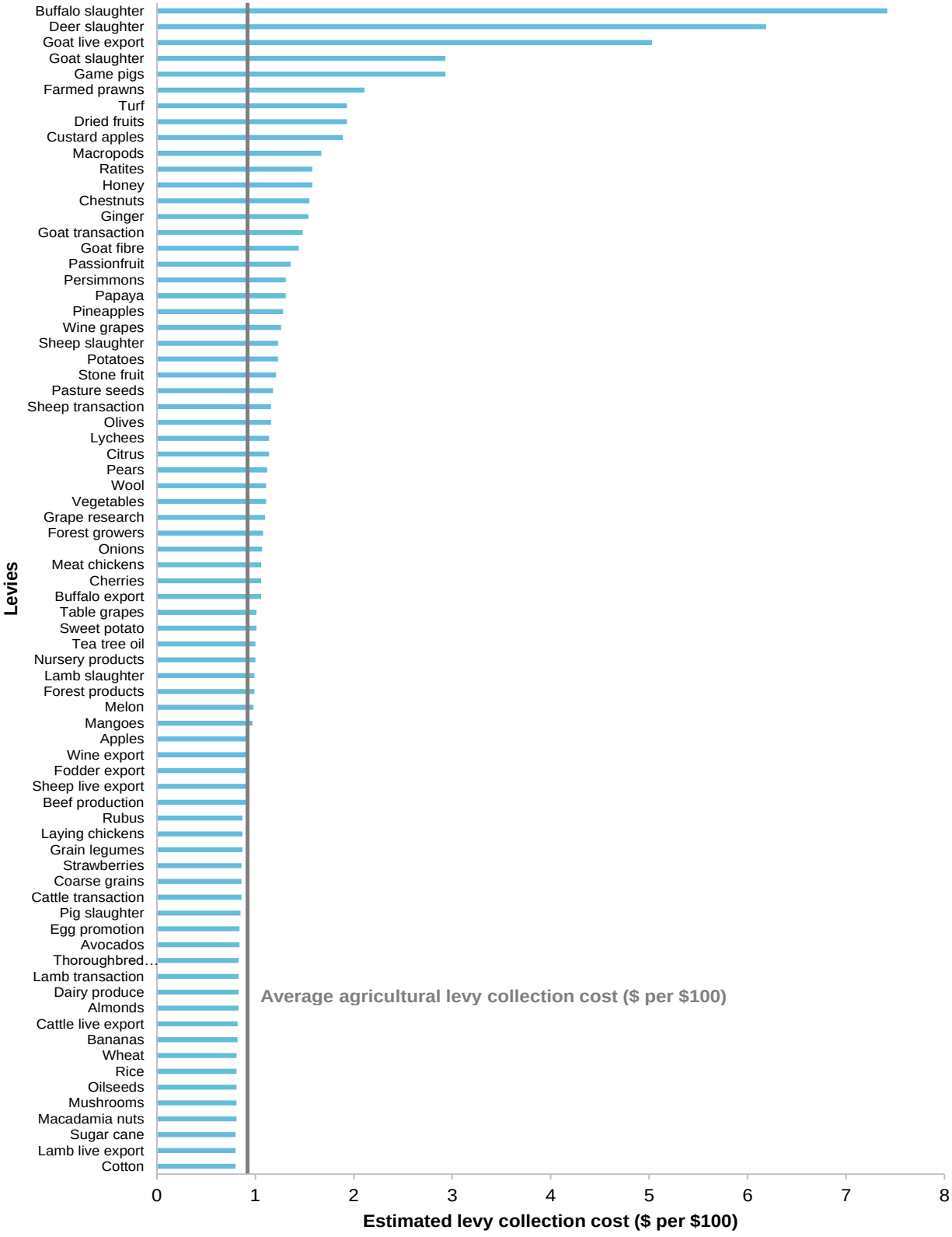
Figure 2.1 – Australian industry levies, by tax base



Source: Productivity Commission stocktake file (2023, appendix B).

Narrowly applied industry levies also tend to come with higher collection costs. The Commission estimates that the average collection cost of the agriculture system is about $0.92 per $100 collected, ranging from $0.80 (Cotton Levy) to $7.42 (Buffalo Slaughter Levy) per $100 collected (figure 2.2). Despite the large variance in collection costs, the lowest collection cost for agriculture levies sits well above the Australian Tax Office's (ATO) taxation collection cost of $0.57 per $100 collected.

Figure 2.2 – Agricultural levy collection costs vary significantly



Source: Commission estimates based on Department of Agriculture, Fisheries and Forestry data (unpublished).

It should be noted that the administration of the agricultural levy system is done with an emphasis on transparency. The department periodically publishes this data and tracks the cost of collecting each type of levy. This stands in contrast to other levy collecting agencies where data was either not forthcoming or simply not available. As the Victorian Auditor General's Office 2023 audit of tax collection efficiency notes:

> The DTF [Department of Treasury and Finance] and SRO [State Revenue Office] do not calculate or know SRO's cost to collect $100 of tax. (VAGO 2023)

In contrast, the Australian Tax Office which administers two levies, one of which is the Major Bank Levy (MBL), were able to report the staffing cost associated with the collection of the MBL. Revenue is collected from the MBL on a quarterly basis from Australia's four major banks and Macquarie Bank. The levy has very low collection costs relative to the large revenue it brings – less than $0.01 cents per $100 collected.[3]

Levies can add complexity to the tax system

Industry levies can also add to the complexity of the tax system by increasing the number of taxes that any individual business needs to deal with.

This complexity is compounded for national or cross-State businesses where similar levies are imposed in inconsistent ways by different state and territory governments. Inconsistent approaches to state and territory levies can also distort the allocation of business activities, particularly where differences in levy rates in one lead businesses to shift related activities to another. This can result in efficiency costs by distorting business activities away from what would otherwise minimise operating costs. These dynamics may have played a role in the evolution of state-level waste levies (box 2.1).

Box 2.1 – Inefficient path dependency – state and territory waste levies

Waste levies are imposed on landfill waste facilities. Their stated intent is to encourage waste reduction, and waste diversion into recycling. Levy rates have historically varied, having been introduced at different times in different jurisdictions. This has led to a cycle of changing levy rates to avoid people from driving across state borders to dump waste at cheaper rates (ECRC 2018, pp. 47–48).

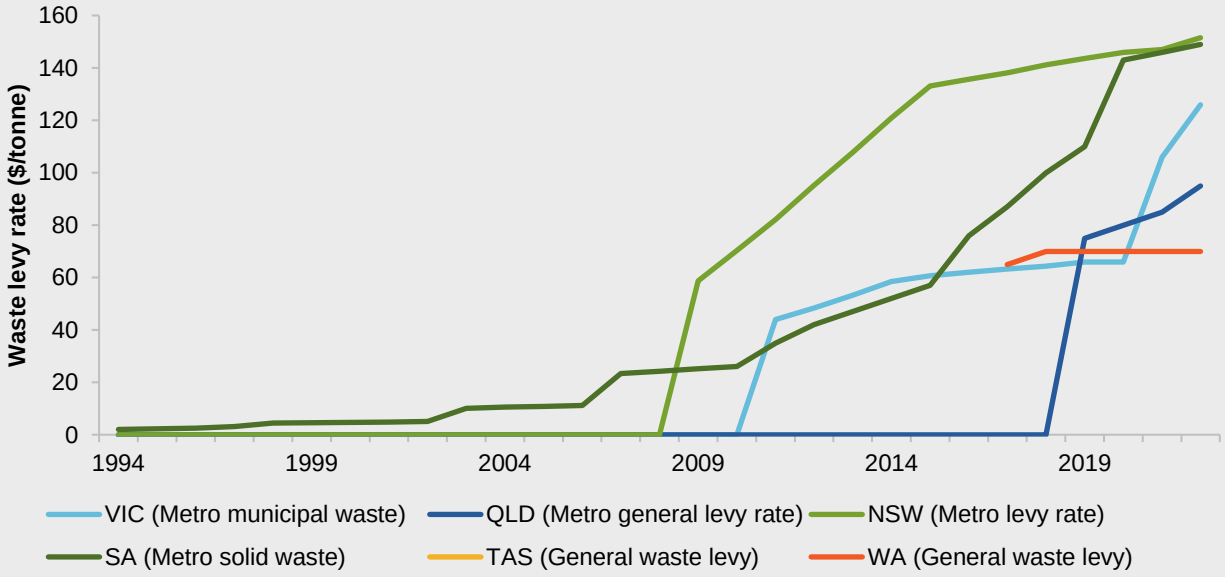
A coordinated approach to the policy goal of waste levies, and the subsequent setting of levy rates, can help mitigate some of these challenges. In the 2019 *National Waste Policy Action Plan*, states and territories announced their intent to do so (DCCEEW 2019, p. 14).

[3] The total cost is estimated to be around $150,000 by the ATO which is an underestimate as it only takes into account the ATO's costs of administering the levy, and not the Australian Prudential Regulation Authority's costs who is a co-administrator of the levy. Given the total collected by the Major Bank Levy is in excess of $1.4bn it seems likely that even with APRAs costs, the cost of collection per $100 would be less than $0.01 per $100.

Box 2.1 – Inefficient path dependency – state and territory waste levies

Waste levy rate surges over recent years[a]

Waste levy rate ($/tonne) by States and Territory from 1994-95 to 2022-23



a. There is currently no waste levy in NT, but the NT Government is looking to impose one (Northern Territory Government 2022, p. 12). Past levy data was limited for WA. The ACT has gate fees without a specific waste levy.

Source: State and Territory Environmental Protection Agencies.

Industry levy systems can also be distortive when coupled with other policy settings. For example, the practice of matching industry levy proceeds that go to research and development (R&D) activity in the agricultural sector – up to 0.5% of the gross value added (GVA) of the sector - is a system that is selectively available to the agricultural sector (Kerin 2017, p. 618). The Commission's 2011 inquiry into *Rural Research and Development Corporations* noted that government matching of R&D levy proceeds was not to address the prospect of free-riding in the funding of sectoral public goods, but rather to target spillover benefits to third parties from R&D investments (PC 2011, p. 121).

Levies are not necessarily equity enhancing

While tax and transfer systems frequently pursue equity at the cost of efficiency, it is not clear that industry levies are generally better placed to pursue equity goals than the tax and transfer system more generally.

While the notion of 'equity' is ultimately subjective, policymakers generally regard a tax and transfer system as being equitable if:

- people in similar economic circumstances are treated similarly (referred to as 'horizontal equity')
- the amount of tax paid increases alongside people's ability to pay ('vertical equity').

The narrow application of industry levies means that their ability to meaningfully contribute to tax and transfer system equity is likely limited (section 2.2).

We need a framework to assess industry levy proposals

The ability for industry levies to weigh on the efficiency of Australia's tax system, in turn weighing on Australian productivity performance, creates the need for framework guidance on the circumstances in which industry levies can contribute to the efficiency of the Australian tax system. While government guidelines do exist, they are largely administrative guidelines, setting out how and when industry levies can be pursued. They are not policy framework guidelines, setting out when industry levies *should* and *should not* be pursued.

Finding 2.1
The need for a framework

There is no over-arching economic framework for policymakers to consider the public policy merits of industry levy proposals. This paper proposes such a framework, comprised of a series of threshold questions to ask of individual industry levy proposals, or existing industry levies when being reviewed.

2.2 A framework to assess the policy cases for individual industry levy proposals

Deviating from the general principles of efficient tax system design by imposing an industry levy is potentially justifiable in four scenarios – so long as certain conditions are met.

Funding sectoral public goods

Sectoral public goods are goods or services that all firms in a sector stand to benefit from, but which no individual business has an incentive to sufficiently invest in.[4] For example, a global marketing campaign that emphasised the virtues of Australian wheat could be expected to benefit all Australian wheat growers. Similarly, R&D activities that discover production methods that boost Australian wheat yields could be expected to ultimately benefit all Australian wheat growers. Because all businesses in the sector can benefit from these activities, even when they do not pay for them, there is an incentive for individual businesses to avoid paying for them and to instead 'free-ride' off of the contributions of others. In addition, because positive spillovers from R&D activity will not be captured by any one business, we would expect R&D to be under-invested in. The end result can be that sectoral public goods are simply not funded, or underfunded, to the detriment of all businesses in the sector.

The prospect of free-riding behaviour in the funding of sectoral public goods provides a rationale for compelling all industry participants to contribute to the funding of sectoral public goods through a compulsory industry levy.[5] Firms in the sector could notionally coordinate amongst themselves to fund these activities on

[4] Sectoral public goods are non-rival and non-excludable for all businesses in a particular sector. They are non-rival because one business benefiting from the good or service does not prevent another business from benefiting from the good or service, and they are non-excludable because individual businesses in the sector cannot be blocked from benefitting from the good or service. For these reasons, individual businesses have a limited incentive to pay for them by themselves.
[5] The Henry Review (2009, pp. 333–335) referred to the activities funded by agricultural levies as a form of club good. Where public goods are non-rival and non-excludable, 'club goods' are non-rival but excludable.

a voluntary basis but the ability to do so will tend to fall as the number of businesses in an individual sector grows. For example, a sector comprised of, say, two or three businesses will be better able to reach agreement on the voluntary funding of sectoral public goods, and monitor compliance with that agreement, than a sector comprised of several hundred businesses.

This rationale is most apparent in the agricultural sector, where industry levies first began in Australia. These industry levies are principally directed at funding sectoral public goods such as R&D, marketing, biosecurity responses, and where the large number of growers in each sector can frustrate attempts to coordinate voluntary funding (box 2.2). Evidence on the effectiveness of industry levies in the agricultural sector is discussed in chapter 4.

Box 2.2 – The agricultural levy system

There are four different activities that tend to be funded by agricultural levies: R&D, marketing, biosecurity, and the National Residue Survey. Levies can be applied differently based on their: levy rate, levy unit, exemptions, frequency of payment, collection mechanism, collection points, and distribution of levy funds to levy bodies (ACIL Allen Consulting and Minter Ellison 2016, p. 5).

Agricultural levies frequently seek to fund sectoral public goods by:

- **overcoming coordination problems** – the agricultural sector has many diverse industries with a large number of producers who cannot realise enough benefits from the R&D to self-fund, leading to underinvestment in the sector (ACIL Allen Consulting and Minter Ellison 2016, pp. 7–8; PC 2011, pp. 50–51)
- **limiting free-riding** – the collection of mandatory levies limit free-riding and allows the sector to overcome coordination issues (ACIL Allen Consulting and Minter Ellison 2016, pp. 7–8).

Government first began matching agricultural R&D levy funds raised by industry in the 1980s.[6] Matching payments aims to target the spillover benefits from R&D beyond the leviable market to the broader community (PC 2011, pp. 50–51). That is, the policy goal of government matching payments (targeting spillovers) is distinct from the policy rationale for using agricultural levies to fund sectoral public goods.

Agricultural levy funds are collected at different collection points. In 2018-19, levies collected summed to about $529 million at 14,756 distinct collection points (DAWE 2020, p. 31,38). The majority of those funds go towards R&D and marketing, with a small proportion used for biosecurity, as of 2016 (ACIL Allen Consulting and Minter Ellison 2016, p. 5).

Levy funds are disbursed to 15 levy recipient bodies for research, development and marketing services. The remaining funds are distributed to three other bodies for biosecurity and national residue testing (ACIL Allen Consulting and Minter Ellison 2016, p. 7). These bodies, along with industry and government, decide how to invest funds.

[6] Government matches R&D levy revenue according to the lesser of three limits: 50% of eligible expenditure; the amount of R&D levy revenue collected or disbursed, excluding collection costs and penalties collected (depending on the legislation); and 0.5% of the industry's gross value of production (GVP), averaged over 3 years (DAFF 2019, p. 10).

Ensuring that industry levies fund sectoral public goods that are actually valued by the sector can be facilitated by making the foundation of the levy, and its ongoing operation, contingent upon industry agreement. That is, if the request for a levy came from the industry itself, and the levied industry had the ability to monitor the activities funded by the levy and to regularly vote on its continuation or discontinuation, that might satisfy policymakers that the levied industry regards the benefits of the industry-levy funded scheme as being greater than its costs.

In addition, some industry levy designs are likely to be more efficient than others.

- Imposing industry levies on more efficient tax bases than transactions or revenue can be expected reduce their overall costs.
- Caution should be taken that the design of the industry levy does not inadvertently benefit larger firms over smaller firms. For example, while a fixed dollar value levy payable by all firms in a sector might be more efficient than some alternatives, it could favour large incumbents over new entrants.
- It is also important to consider the form of the voting system. For example, voting systems that are based on the proportion of total levy revenues paid by each business, or market share, could give large incumbents the ability to dictate the magnitude of levies imposed on smaller firms in the sector, and the ability to effectively direct which sectoral public good activities are undertaken. This can include R&D activities that are more relevant to larger producers than smaller producers, who nevertheless have to pay the levy (Henry 2009, p. 335).

These considerations are included in a decision tree (figure 2.3) which set out the key variables that would strengthen or weaken the public policy case for an industry levy aimed at funding sectoral public goods.

Figure 2.3 – Questions to ask of sectoral public good levy proposals

Pricing sectoral externalities

Many sectors impose costs on the broader community that are not reflected in the price of the goods or services that they produce. An example of negative externalities include environmental costs generated by different production processes.

Many of these externalities are produced by a broad range of activities, for example, greenhouse gas emissions are produced by a wide range of production activities in Australia. Such externalities are most efficiently addressed through economy-wide pricing mechanisms, which force businesses to face financial costs proportionate to the costs that they impose on the broader community. There might be externalities that are more localised, or sector-specific, in nature. In such cases, there might exist a policy rationale for an industry levy to either directly price these externalities, or to fund programs aimed at reducing them.

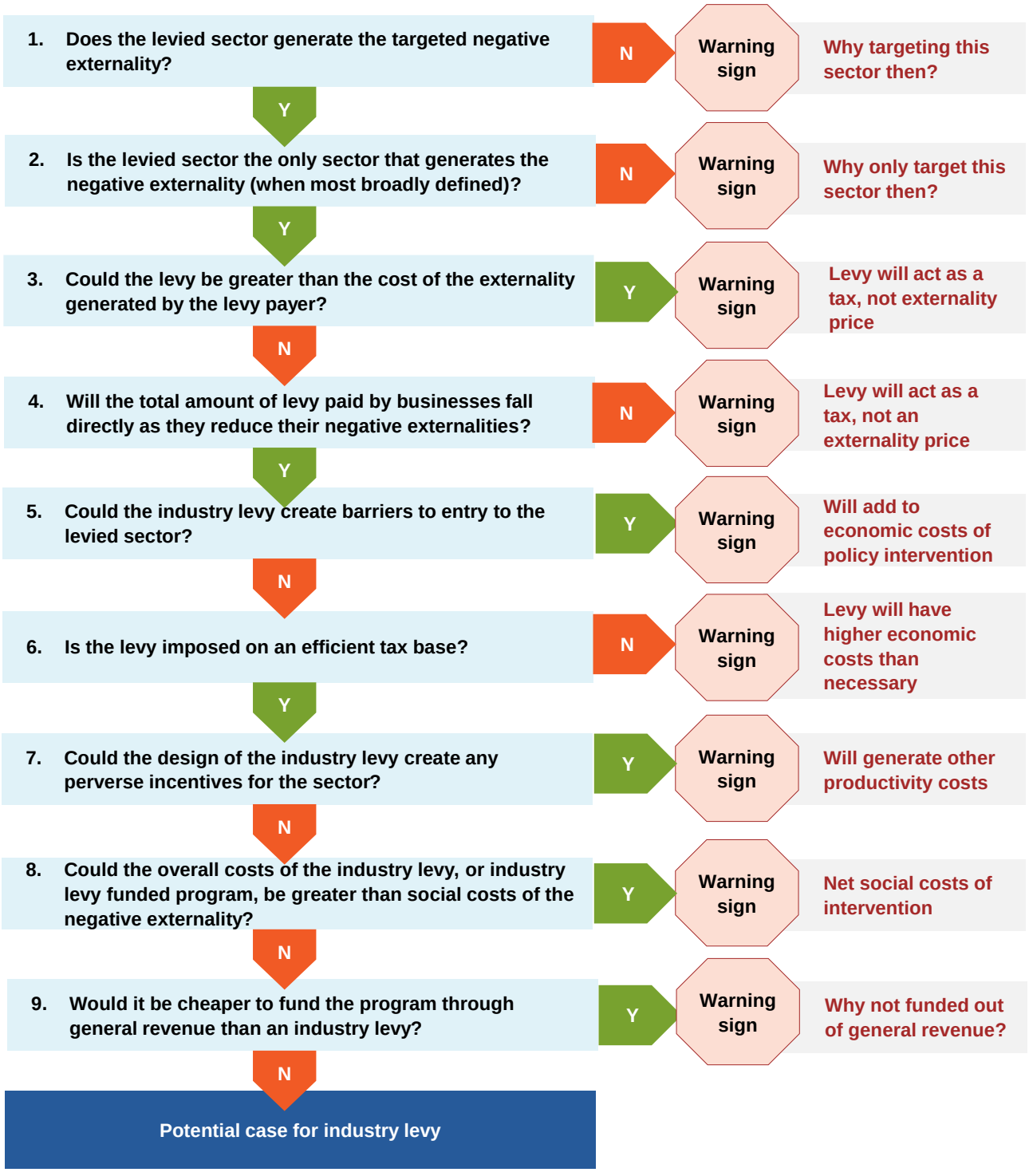
Potential examples of such levies include container deposit levies, which are imposed on drink makers to fund refunds for collecting and depositing bottles at designated collection points (NSW EPA 2023), and the Commonwealth Product Stewardship Oil levy which funds the collection and recycling of used food oil (DCCEEW 2023). These programs do not directly price externalities, but fund programs that aim to reduce them. Whether such levy-based approaches to reducing environmental costs is effective depends on the extent to which the social value of these avoided environmental costs are greater than the overall costs of the levy, and whether these benefits might be achieved at lower cost through alternative policy mechanisms.

Relevant considerations include whether:

- the targeted externality is unique to the sector, or whether it is produced by a range of sectors. If the latter, then it would be more efficient to use a cross-sectoral or economy-wide externality pricing mechanism to achieve the planned reduction in negative externalities.
- the levy paid by each firm is in proportion to the externality generated by that firm. This would provide an incentive for firms to identify and implement alternative options to current practices. For example, if microplastics were identified as the externality being targeted by container deposit levies, only imposing levies on drink containers that were capable of generating microplastics could encourage greater use of alternative packaging options.

These considerations, along with considerations applicable to all industry levies are set out in the decision tree presented in figure 2.4.

Figure 2.4 – Questions to ask of levy proposals aimed at addressing sectoral externalities



Charging industry for government regulation

Ensuring that the price of goods and services reflects their true cost of production (cost-reflective pricing) helps to promote the efficient allocation of scarce resources (allocative efficiency). This in turn helps people decide where they want society's scarce resources to go, by meaningfully signalling the true costs of particular goods and services.

The importance of cost-reflective pricing to allocative efficiency provides a theoretical argument for charging industries for their regulation, but only in certain circumstances.

Industries where high levels of regulation are necessary to ensure the safe provision of goods and services are potential candidates for charging businesses for their regulation. Failing to include the cost of regulation in the sale price could under-price the true costs of safely providing those goods and services, in turn leading to their over-consumption. This can be particularly relevant where it is difficult for consumers to judge product quality or safety.

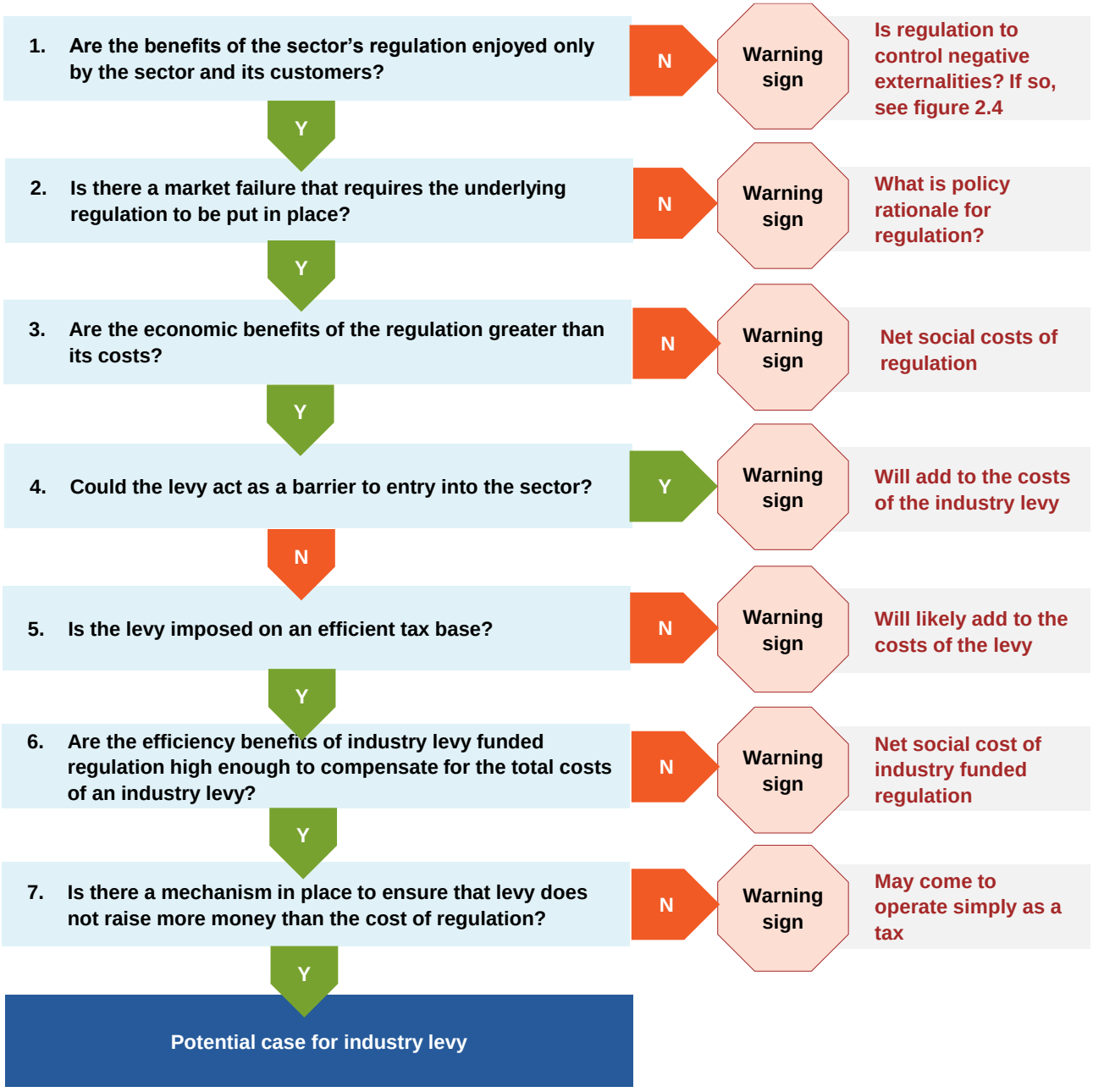
For this to be justifiable, the efficiency gains of more cost-reflective pricing would need to be greater than the costs of setting up, enforcing, and complying with the associated industry levy regime. In practice, this will be limited to cases where the regulatory requirements of an industry is particularly high.

In addition, industry regulation is often motivated by a recognition of the costs that a failure to regulate can impose on third parties. For example, the prudential regulation of financial institutions is partly motivated by the impacts of excessive institutional risk taking on financial stability and the broader economy. Similarly, the regulation of production processes can aim to minimise the environmental and human health costs. These are examples of negative externalities that, all else equal, might be most efficiently borne by the regulated industry, effectively acting as a form of externality pricing.

Industry levies aimed at charging industries for the cost of their regulation (regulatory cost-recovery levies) might have a notional role where required regulatory costs are high, and the benefits of that regulation accrues, at least partly, to third parties.

Care should be taken that the notion of industry-funded regulation is not normalised as a default-option in the minds of policymakers. In the absence of the conditions set out in the decision tree below (figure 2.5), industry regulation would be more efficiently funded through general revenue. The decision tree below provides questions to ask of regulatory cost-recovery levy proposals.

Figure 2.5 – Questions to ask of regulatory cost-recovery levy proposals



Equity considerations

There may be cases where equity considerations are used to justify the efficiency costs of industry levies, but equity goals are likely to be more meaningfully achieved through the broader tax and transfer system. Governments wishing, nevertheless, to pursue equity goals through industry levies should do so with an appreciation of the trade-offs for both the equity and efficiency of the tax system.

Some industry levies have been imposed with some degree of equity-motivated redistribution in mind. For example, the Telecommunications Industry Levy is used to fund universal service obligations in the telecommunications sector (ACMA 2023). The levy subsidises the provision of telecom services in regions where it is unprofitable to do so by effectively raising the cost in profitable service areas. It is effectively a form of redistribution from one set of users (profitable regions) to another (unprofitable regions).

Redistribution goals are likely to be most equitably achieved through the broader tax and transfer system, which takes into consideration a wide range of factors. By contrast, redistribution via levy-funded universal service obligations simply redistributes income from profitable regions to unprofitable regions, which might be poorly aligned with need. The profitability of a particular region is likely to be more a function of population density than income levels.[7]

As a result, redistribution using industry levies in this way could effectively redistribute income from low-income households to high-income households, or from medium-income households to other medium-income households, all depending on density. By contrast, redistribution undertaken by the broader tax system is more likely to redistribute income from higher income households to lower income households, regardless of the region a household is in. In addition, redistribution via the tax and transfer system is more likely to respect the underlying preferences of the lower income households that are the net recipients of income assistance. This is because the tax and transfer system transfers cash income that lower income households are free to use in any way that they see fit. By contrast, universal service obligations provide transfers-in-kind to households regardless of the underlying preferences of those households.

Some of these services may well be valuable to some sections of the community but would be better funded out of general revenue. Doing so would avoid the administration and compliance costs of associated industry levies, and more reliably ensure that associated programs were being funded in a way that corresponded with the broader vertical and horizontal equity goals of the tax and transfer system.

Other equity considerations

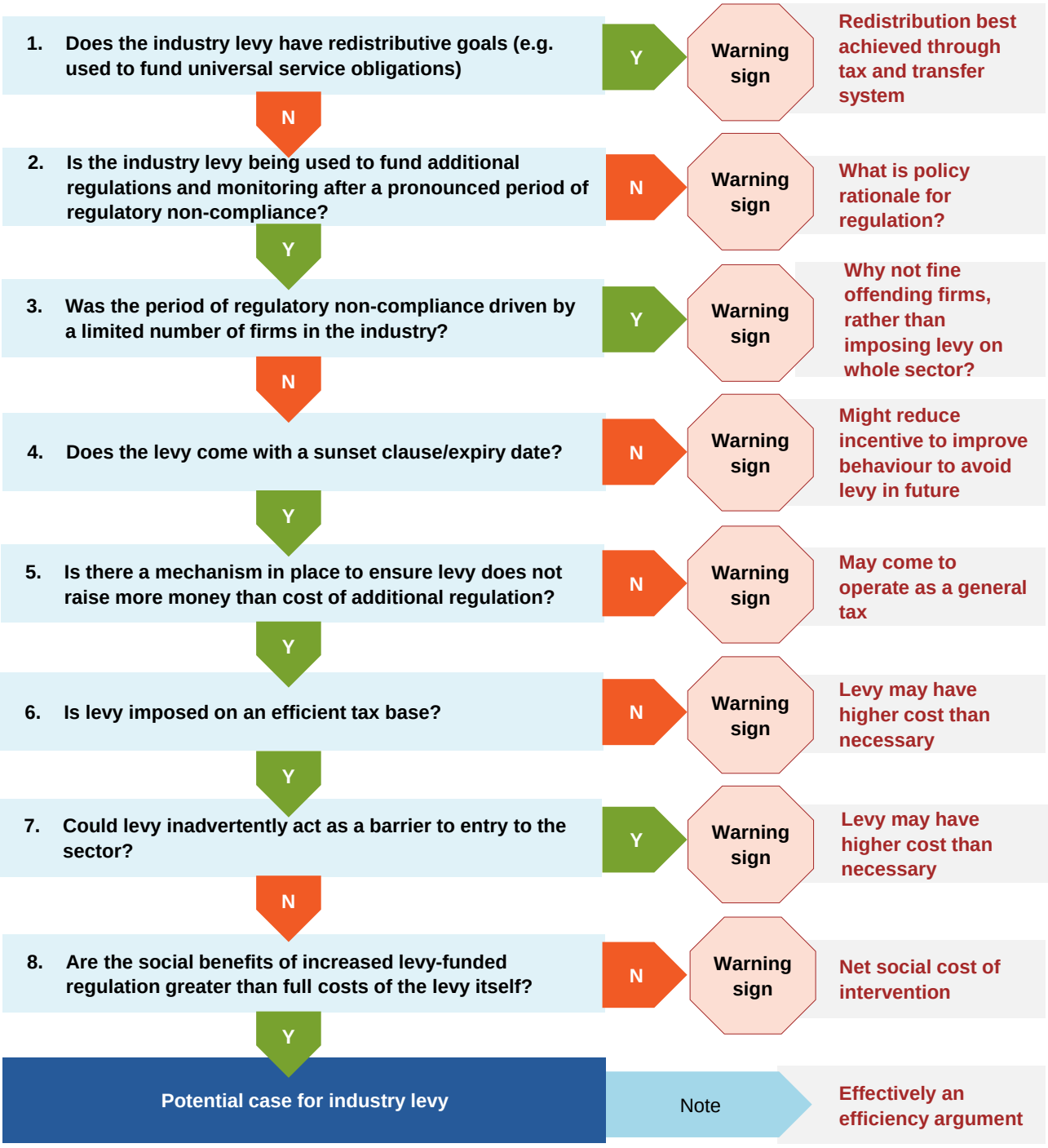
There might be other cases where equity concerns are considered sufficient to justify the potential efficiency costs of an industry levy. For example, if a particular industry repeatedly breached its regulatory obligations in a way that suggested it had developed a culture of skirting industry regulation, the community might regard it as fair that the industry fund any subsequent increase in regulation or monitoring.

A system where only some industries paid for at least some of their regulation, and others did not, would risk the horizontal equity goals of the tax system. It could also risk the vertical equity goals of the tax system if those industries that paid for part of their regulation were lower-income industries. Such risks would be compounded by the practical challenge of deciding the baseline level of regulation that should be provided by government, beyond which additional regulatory requirement should be funded by industry. Moreover, such an industry-wide funding approach to additional regulation would risk punishing those firms within the sector that operate in accordance with regulatory requirements, for the behaviour of firms that do not. This contrasts with a system of firm-level fines for breaches of regulatory requirements which only places additional financial burdens on offending firms.

If a levy is used in this manner the efficiency trade-offs should be borne knowingly, and their efficiency costs reduced by structuring in a way that promotes regulatory compliance over the long term. This might be achieved by placing a sunset clause on the levy for additional regulatory oversight, providing an additional financial incentive for the sector to develop a culture of regulatory compliance over time. These considerations are set out in figure 2.6.

[7] Ongoing advances in telecommunications technology, such as those provided by low orbit satellites may reduce the number of communities that are unprofitable to service, given their lower requirement for fixed cost infrastructure, and more equal marginal cost of provision between users. Nevertheless, this example is used simply to illustrate the merits of redistribution through the general tax system relative to narrow industry levies.

Figure 2.6 – Questions to ask of equity-motivated industry levies



Finding 2.2
There is a need to restore policy discipline to industry levy development

Plans for several new industry levies have been announced, and the continuation of recent trends will likely see more introduced over coming years. The levy stocktake presented in this report might also have the unintended effect of helping some jurisdictions identify levies that other jurisdictions have and seek to introduce them. To limit the extent to which ongoing growth in industry levies reduces the efficiency of Australia's tax system and weighs on productivity growth, industry levy proposals should have formal tests in place before being implemented.

Recommendation: Government should restore policy discipline to the introduction of new levies, as well as decisions to maintain existing levies, by being clear about their policy purpose, and assessing their costs and benefits relative to available policy alternatives.

Implementation: the Australian Government should amend the Budget Process Operational Rules to require all levy proposals to identify the type of levy being introduced and establish how they respond to each of the tests set out in the associated decision tree provided in this report. State and territory governments should introduce a similar process into their budget development rules. Australian, state and territory governments should use the relevant decision tree set out in this paper and publish the analysis for any new or reviewed levy with the relevant legislative instrument.

2.3 Case study

The proposed Biosecurity Protection Levy – a practical application of the decision trees

The Australian Government has announced plans to introduce a new *Biosecurity Protection Levy* from 1 July 2024. The plan was announced in the 2023-24 Commonwealth budget, and further details were provided through a consultation paper released by the Department of Agriculture, Fisheries and Forestry soon thereafter (DAFF 2023c). The supporting legislation is, as of December 2023, yet to be introduced into the Australian Parliament.

As currently proposed, the *Biosecurity Protection Levy* will be imposed on primary producers and join a wider range of funding measures that collectively comprise a broader *sustainable funding* package. In addition to the *Biosecurity Protection Levy*, the package includes increased departmental appropriation from general revenue, increased cost-recovery fees and charges on imports from 1 July 2023, and a new charge for low value consignments and rise in the *Passenger Movement Charge* on outbound travellers from 1 July 2024.

Collectively, these measures are projected to increase biosecurity funding from $536.2 million to $804.6 million in 2024-25. General revenue is projected to provide 44% of total funding, importers 48%, domestic primary producers 6%, and Australia Post 2% (DAFF 2023c).

The stated rationale for the proposed change in overall funding arrangements, of which the *Biosecurity Protection Levy* is one element, differentiates between those that 'create' biosecurity risks, and those who receive 'significant benefit' from the avoidance of biosecurity challenges. Those deemed to create risks are importers and international travellers. Those deemed to enjoy significant benefits from the system are the general public and primary producers – agriculture, fisheries, and forestry industries.

For primary producers, the levy is proposed to be 10% of 2020-21 agricultural levy rates, and a comparable metric for primary producers that do not currently pay an industry levy (DAFF 2023c). The distinction between 'risk creators' and 'beneficiaries' simultaneously invokes two distinct policy frameworks – the former sectoral externalities, the latter sectoral public goods. It is not uncommon for multiple market failures to be identified as contributing to a particular policy challenge, though challenges can arise from doing so. Appendix F provides a fuller discussion.

While the design of the proposed levy is yet to be finalised, details released to date provide an opportunity to apply the chapter 2 frameworks, asking a number of questions of the policy proposal from the relevant framework decision trees. While the stated rationale for the *Biosecurity Protection Levy* invokes the public good nature of some biosecurity activities, charges on importers included in the broader *sustainable funding* package are premised on a negative externalities framework ('risk creators'). For completeness, and to highlight the questions that might arise when hypothetically choosing to pursue one of the two distinct policy rationales, the *Biosecurity Levy Proposal* is explored through the separate application of both the sectoral externality and sectoral public good frameworks in Appendix F. These do not constitute a formal review of the policy but provide the opportunity for a practical illustration of the Chapter 2 frameworks. A summary of the results of the sectoral public goods framework is set out below.

Running the Biosecurity Levy through the sectoral public goods framework

1. Are there public goods that all businesses in a sector could benefit from?

Broadly speaking, yes. The *Biosecurity Protection Levy* is proposed to be applied to primary producers. Biosecurity protection efforts benefit domestic producers through more predictable growing conditions, higher quality produce, and greater access to international markets.

2. Is the levied sector the only sector that will benefit from the funding of the public good?

No. The *Biosecurity Protection Levy* is proposed to be applied to domestic primary producers only, while the benefits of biosecurity are shared across a broad range of sectors and the broader community.

Why only target this sector? Community-wide public goods are more readily funded out of general revenue.

3. Does the sector face a 'free-riding' challenge when trying to collectively fund sectoral public goods?

Unclear when considered in relation to existing policy settings that seek to address free-riding issues in the funding of general, and sector-specific, biosecurity activities.

What is the policy rationale for the additional intervention?

4. Are the economic benefits of the sectoral public good greater than the costs of the industry levy?

Unclear in the absence of detailed, sector-specific, cost benefit analysis of the proposal.

Potential for some individual sectors to face additional costs from the levy that are greater than the benefits that they receive.

5. Can the sectoral public good be funded at lower cost by an industry levy than through general revenue?

Unlikely. Industry levies are a generally less efficient form of funding than general revenue.

May fund policy intervention at a higher cost than is necessary.

6. Could the levy raise more money than needed for the stated policy response?

Strictly speaking, no. The proposed *Biosecurity Protection Levy* is proposed to fund only a portion of the overall costs of Australia's biosecurity activities.

7. Could the design of the industry levy create barriers to entry for the sector?

Unlikely. It appears that the overall levy paid by individual businesses will grow alongside their size, limiting the extent to which it will disproportionately fall on smaller primary producers.

8. Is the levy imposed on an efficient tax base?

No. The proposed *Biosecurity Protection Levy* will be imposed on top of existing agricultural levies, which are predominantly transaction taxes, one of the less efficient tax bases.

Policy intervention likely to come at a higher cost than necessary.

9. Is there widespread industry support for the levy?

No. It is understood that primary producers are generally opposed to the imposition of the levy.

Might suggest that industry does not regard the funded activities as true sectoral public goods

10. Will levy payers be in a position to monitor and influence how levy proceeds are used?

Unclear, but unlikely. Levy proceeds will only fund a proportion of overall biosecurity activities, and it is not proposed that those revenues will be hypothecated for particular activities.

How will primary producers know whether levy proceeds are going to activities that they value?

11. Will levy payers be able to regularly vote to continue or discontinue the levy?

No. The consultation paper states that industry will not have voting rights as is commonly the case with existing agricultural levies.

How can policy makers be sure that levy proceeds are going to activities that are valued by primary producers?

3. Explaining the proliferation

Key points

- **The proliferation of industry levies raises the possibility that they are not first-best policy design, and at least in some cases, pursued for reasons other than their policy value. These reasons may include:**
  - policymaker's perceptions that 'levies' on individual sectors are less likely to face community opposition than 'taxes' on a broader range of sectors or individuals
  - the ability to develop a revenue source that is managed by individual portfolio Ministers or departments
  - the fact some levy revenues do not count towards occasionally politicised tax-to-GDP levels.
- **In turn, these incentives may have influenced the design of some institutional settings that govern the development and design of industry levies.**
  - These potentially include aspects of the Budget Process Operational Rules and the Australian Government's Cost Recovery Policy.
- **Regardless of the cause, ensuring policy discipline in the design of future, and maintenance of existing, industry levies will be important so that levies do not become a creeping source of tax system complexity and inefficiency in Australia, weighing on productivity growth in the process.**

The frameworks set out in this paper suggests that industry levies are only likely to contribute to tax system efficiency and deliver on their stated outcomes in a limited number of cases. This raises the possibility that the proliferation of industry levies has been driven by alternative considerations.

Industry levies are one of a few options available to governments seeking to raise additional revenue. Alternatives include introducing a new tax, increasing an existing tax, or pursuing other kinds of charges. This chapter explores some plausible explanations for why the use of industry levies has increased, despite not always representing first-best policy design.

The chapter takes a qualitative approach to understanding what could have driven these changes, positing potential explanations for the increased use of industry levies over time, and testing them with a range of parties involved in the levy development process.[8] The intent was not to find a generalisable reason for why the proliferation happened, but rather to assess the degree to which a range of potential explanations were deemed plausible by those involved in the levy development process.

[8] This consultation included meetings with these parties, as well as an anonymous survey that was circulated amongst those consulted during the course of the research project.

Broadly, this chapter identifies two groups of factors that may have played a role in the proliferation of industry levies over recent decades:

- **community attitudes** – public attitudes towards industry levies, relative to broader-based taxes
- **institutional considerations** – policy development rules, and Ministerial preferences, that might shape the decisions of those involved in the levy development process.

These categories may not be completely distinct, as decisions around institutional design can be influenced by community attitudes. Regardless of the cause, ensuring policy discipline in the design of future, and maintenance of existing, industry levies will be important so that levies do not become a creeping source of tax system inefficiency.

3.1 Community attitudes

Tax policy is fraught with political sensitivities. The degree of public support for a levy or tax proposal can be as important to policymakers as the strict public policy case for them.

It would seem reasonable to think that 'levies' on narrow sections of industry would face less community opposition than, say, an increase in taxes on a wider range of sectors or households. Though it is the community that bears the cost of most forms of taxation, the direct costs of taxation may be a more immediate consideration in the minds of voters than the more indirect and diffuse costs of an inefficient tax system. The public may perceive levies more favourably because they believe that they are not affected by them. Whereas the individual impact of income tax, GST or land tax is immediately apparent to anyone with a glance at a payslip or receipt. The additional consumer cost of a good or service owing to a levy is less apparent because consumers are not 'directly' paying the levy. At the extreme, some people may perceive levies to have no effect on themselves, a phenomenon known as 'fiscal illusion'.[9]

It might be that the hypothecated nature of some industry levies further reduces community opposition to them. For example, container deposit levies on drink manufacturers, or emergency services levies on insurance products, may face less public opposition because they may be linked, in the public mind, to an outcome that the public has general sympathies for – reduced litter and emergency services. In this case, the public is less concerned about whether funding these policies through industry levies is the most efficient mechanism to do so. The relative policy value of using levies in this way is explored further in box 3.1.

All else equal, it seems reasonable to expect that less community opposition to industry levies relative to broader-based taxation could flow through to policymakers preferring industry levies over other tax options. Moreover, the absence of a consistent and generally understood definition of 'levy' relative to 'tax' can create an incentive to apply the softer label of 'levy' to a proposal that could just as well be called a 'tax' (Taylor 2013, p. 10).

Creating a meaningful measure of community sentiment towards 'levies' relative to 'taxes' over time is difficult. Consultation with a range of parties involved in the levy development and administration process supported the idea that that levies on narrow sections of industry are believed to face less community opposition than increases in broader-based taxes. The sentiment that a 'levy just sounds better than tax' was raised in consultation for this paper, and as Professor Robert Breunig from the Tax and Transfer Policy Institute noted:

> Regular voters may not mind industry levies because they are not directly impacted by them. (Breunig, pers. comm., 15 November 2023)

[9] A concept dating back to John Stuart Mill's suggestion that 'Perhaps... the money which [the taxpayer] is required to pay directly out of his pocket is the only taxation which he is quite sure that he pays at all' (Mill 1848).

Box 3.1 – Hypothecation through the lens of public choice theory

Robson (2014) examines the optimal design of industry levies for the purposes of cost-recovery for regulation in first and second best settings, using conventional welfare economics. However, hypothecated (or earmarked) taxes can be viewed through the lens of public choice theory, which explores how individuals and groups make economic decisions within a political system.

One argument for hypothecation is that it addresses an asymmetric information problem in the context of tax proposals. Here, the government can be thought of as an agent of the general public, entrusted to enact the latter's preferred balance of taxes and public spending. When raising funds through a new tax, the government can either direct the funds into its general revenue pool or hypothecate them for a specific purpose. In the former case, there is no way to determine exactly what the tax has 'bought', making it difficult for the public to assess whether the tax aligns with their preferences. By contrast, hypothecation notionally allows the public to make a side-by-side comparison of the costs of the tax against where the tax is being spent (Carling 2007, p. 3; McDonald 1996, p. 25).

The notional transparency benefit is only valid if the hypothecation is *real*, rather than just a branding exercise – that is, the designated spending would truly not take place without the additional tax revenues. This is not always the case. A prominent example is the Medicare Levy, which covers only a small fraction of total Medicare spending and does not directly influence that total (Sammut 2017, p. 3). More generally, each dollar raised for a given policy purpose also frees up revenues to be used for other policy areas, reducing the meaning with which it can be said that revenue from one source funds a specific policy goal. That is, the true effect of the hypothecated tax may be to enable a different set of expenditure to what it is badged as. Such examples, rather than overcoming information asymmetries, can contribute to them, by misleading the public as to the true costs of expenditure programs, or where the funds are going (Carling 2007, p. 6).

Even where a hypothecated tax is directed to a single policy goal, communicates the true cost of that public policy goal, and does not simply free up fiscal resources for other purposes, it is not without challenges. Tying program expenditure to a specific tax means reduced flexibility to alter or reallocate spending in response to the program's performance, or a change in community preferences (McDonald 1996, pp. 25–26). Further, the tax may be protected from public scrutiny on account of the spending it delivers, even if there are better revenue raising options. An agent (government) might best serve the interests of its principals (voters) by retaining the flexibility to respond to their changing preferences over time.

3.2 Institutional considerations

Institutional settings might have encouraged the proliferation of industry levies over recent decades. Examples include the Commonwealth Budget Process Operational Rules (BPORs) and the Australian Government Charging Framework. Ministerial preferences for a funding source that are permanently assigned to portfolios might also have played a role. The Commission has not examined institutional arrangements in the state and territory governments.

Ministerial preferences for levy proposals

Ministers and departments may prefer industry levies to the extent that they 'permanently' assign an ongoing revenue stream to portfolios.[10] Under the Charging Framework (box 3.2) levy revenue is generally required to be linked to a specific spending activity, and therefore, linked to a Ministerial portfolio. This funding might be perceived as more difficult to remove from a portfolio, relative to annual budget appropriations. During consultation, the Commission heard that budget pressure may have played a role in some decisions around how to fund a program.

Growth in the number of levies could thereby represent a growing ministerial or departmental preference for secure funding.

More generally, as the number of levies has grown, the use of industry levies as a funding source might have become normalised in the minds of Ministers and their departments. To the extent that an industry levy is accepted as an 'offset' for new policy proposals (box 3.2) they might have become a default funding option considered by policymakers, further reinforcing their growth in the process. In some cases, this default funding option appears to have been made explicit by the BPORs.

Box 3.2 – Australian Government budgetary processes and guidelines

The Australian Government has policy processes that are relevant to implementing levies.

The Australian Government Cost Recovery Policy (CRP)

The CRP is relevant to cost-recovery levies. The CRP sets out how Commonwealth entities design, implement and review cost recovered activities. The overarching policy is that, 'where appropriate, non-government recipients of specific government activities should be charged some or all of the costs of those activities' (Department of Finance 2023b). The choice to cost recover can depend on: the nature of the government activity; who might be charged; the impact of cost-recovery on competition, innovation or the financial viability of payers; whether it is efficient to cost recover the activity; or how cost-recovery might affect government policies (Department of Finance 2023b).

There are two types of cost-recovery charges:

- **cost-recovery fees** – fees charged when a good, service or, in certain circumstances, regulation is provided directly to a **specific** individual or organisation
- **cost-recovery levies** – charges imposed primarily for when regulation, but sometimes also a good or service, is provided to a group of individuals or organisations such as an industry sector (Department of Finance 2023b).

The CRP sits within the Australian Government Charging Framework, which is a broader set of guidelines that provides a consistent approach for charging for government activities**.**

In the Charging Framework, cost-recovery levies are referred to as taxes, but are to be marked as non-taxation revenue for reporting purposes (Department of Finance 2023a).

[10] This is not to suggest that they are able to set or change the rate of the levy at their own discretion.

Box 3.2 – Australian Government budgetary processes and guidelines

The Budget Process Operational Rules (BPORs)

BPORs are rules endorsed by Cabinet that outline the major administrative and operational requirements that Ministers must follow when bringing forward expenditure proposals for final government approval. BPORs are relevant to levies because:

- Rule 1.15 states that policy proposals should consider charges (which can include cost-recovery levies) as a funding option and provide the rationale for charging, or not charging (Department of Finance 2022, p. 10)
- Rule 2 states that policy proposals that have a negative impact on the Budget must be fully offset within the same department (Department of Finance 2022, p. 14). This is usually done through reducing expenditure, but can also be done through increasing revenue (such as through cost-recovery levies or hypothecated revenue levies) with approval from the Treasurer (rule 2.5) (Department of Finance 2022, p. 15).

The Budget Process Operational Rules (BPORs)

The BPORs, which govern the way in which expenditure and revenue proposals are put forward for final Australian Government approval (box 3.2), might have also encouraged the implementation of industry levies. According to Professor Bob Breunig from the Tax and Transfer Policy Institute:

> Industry levies may have emerged through the budget rules, which may have made governments opt for levies. (Breunig, pers. comm., 15 November 2023)

The BPORs have potentially supported the growth of industry levies by requiring consideration of charging instruments (like cost-recovery levies) as a funding option for new policy proposals, and by imposing 'offset' rules that allow for new revenue sources like industry levies to 'offset' the expenditure associated with new policy proposals.

Charging as a default option

Rule 1.15 of the BPORs states that for all policy proposals 'entities must show charging as a funding option was considered and provide the rationale for charging, or not charging, when developing or altering a policy' (Department of Finance 2022, p. 10). This establishes a requirement that all proposals have made a judgment about whether charges – which may include cost-recovery levies – are appropriate.

While it is unclear when rule 1.15 was first introduced[11], it might have supported the growth of industry levies, to the extent that new policy proposals that might not have otherwise been coupled with a cost-recovery levy were effectively required to do so. Consultation with some parties involved in the levy development and administration process supported the notion that Ministers and Departments might feel compelled by BPORs to propose cost-recovery levies to fund new policy proposals.

Future research would benefit from publicly available access to current and historical sets of BPORs; something which has been supported by public service entities (Belcher 2015, p. 3).

[11] Previous editions of the Budget Process Operational Rules are protected by Cabinet-In-Confidence provisions.

Financial offset requirements

Budget offset rules may have also supported the growth of industry levies. Rule 2 of BPORs states that policy proposals that have a negative impact on the Budget must be fully offset within the same department (Department of Finance 2022, p. 14). This is usually achieved by reducing expenditure in the same portfolio but can also be done by increasing revenue through cost-recovery or hypothecated revenue levies if approved by the Treasurer via rule 2.5 (Department of Finance 2022, p. 15).

It is plausible that industry levies have been proposed as a way of satisfying these offset rules. In the absence of publicly available data on the number of industry levies that were proposed as an offset under BPORs 2.5, the Commission has been unable to assess the extent to which this rule has contributed to the growth of industry levies.

The 23.9% tax-to-GDP 'cap'

The Australian Government has occasionally operated with a self-imposed 23.9% tax-to-GDP 'cap', based on the average ratio during the second half of the Howard Government (Richardson and Browne 2018, pp. 2–4). The cap began as a modelling assumption in Intergenerational reports and Budgets before coming to be emphasised by governments as budget discipline-related targets or pledges (Richardson and Browne 2018, pp. 2–4). The prospect of surpassing this cap has occasionally been politicised, supported by associated media coverage (Coorey 2022; Tillett 2023).

A possibility explored by the Commission was whether this revenue cap had potentially played a role in the proliferation of industry levies over recent decades. Tax-to-GDP tax revenue caps could notionally drive the uptake of some industry levies to the extent that their revenues were not classified as tax revenue, as is the case with some cost-recovery levies, and therefore would not contribute to tax-to-GDP levels.[12] While individual cost-recovery levies are often small, and therefore, would not make much of a difference to overall tax-to-GDP levels, the strength of this effect might be expected to grow as governments move closer towards any self-imposed tax-to-GDP ceiling. While industry levies are a plausible driver of non-tax revenue, consultation suggested that tax-to-GDP caps had not played a notable role in industry levy growth to date.

Finding 3.1
Other factors, besides first best policy design, influence industry levy growth

It is possible that the growth of industry levies over recent years has been supported by a range of considerations other than their public policy merits. These factors range from lower expected community opposition to industry levies than to increases to broader-based taxes, ministerial preferences for revenue streams that are more 'permanently' linked to individual portfolios, and prevailing budget rules.

[12] The Australian Government Charging Framework states that where the group of individuals or organisations that has created demand for an activity is also the same group of individuals or organisations paying the levy, the revenue is generally classified as non-taxation (for example, a levy for ongoing monitoring and compliance), provided charges reflect the efficient overall costs of the activity (Department of Finance 2023a).

4. The effectiveness of levies and data

Key points

- **Assessing the impacts of individual industry levies helps to identify whether they are the most effective funding mechanism for achieving their stated policy goals, and how they can be improved.**
- **The existing levy evidence base, though incomplete, mainly focuses on agricultural levies. These studies either examine the agricultural levy system as whole, or the benefits of research and development (R&D).**
  - System reviews have recommended: a more consistent framework for establishing and reviewing levies; removing unnecessary legislation to avoid confusion; making the system more flexible to amendments; minimising costs of collection; and ensuring government funding is providing a public benefit.
  - There have been large benefits from investing in agricultural R&D in general. However, less is known about whether those results are attributable to the funding of that R&D through industry levies.
- **The levy evidence base suffers from limitations.**
  - Periodic levy-specific reviews do not appear to be commonplace. The Productivity Commission only identified 21 of 110 non-agricultural levy rates that had been reviewed and 13 of 138 agricultural levies that had been reviewed.
  - Often, reviews do not undertake a robust cost-benefit analysis, or compare levies to other funding instruments, such as general tax revenue. This makes it difficult to assess the effectiveness of different types of industry levies.
- **The Commission tried to build on the evidence base by empirically evaluating different types of industry levies but ran into legislative and practical barriers to accessing data.**
- **The levy evidence base could be improved through greater data collection, sharing and integration. This data should be used to evaluate specific levies. Such reviews should be made public.**

Assessing the impacts of individual industry levies is important. It helps policymakers assess whether levies are the most effective funding instrument for achieving their stated policy goals and offers insights into how levies can be improved. It also gauges whether there are ongoing net benefits from a levy.

When evaluating levy effectiveness, studies and reviews should determine whether levies are the optimal funding instrument for the policy goal. Following this logic, studies should aim to unpack the following key questions, summarised in figure 4.1:

1. Is the levy the most efficient funding instrument to achieve the stated policy goal?
2. If so, has the levy been designed to operate as efficiently as possible, and can it be improved?
3. Finally, do the benefits from the revenue raised by the levy outweigh the costs imposed by the levy?

Unfortunately levies are too rarely reviewed, and tend to not answer all three questions (section 4.1).

Figure 4.1 – Thought process for undertaking robust assessments of levies

4.1 The levy evidence base

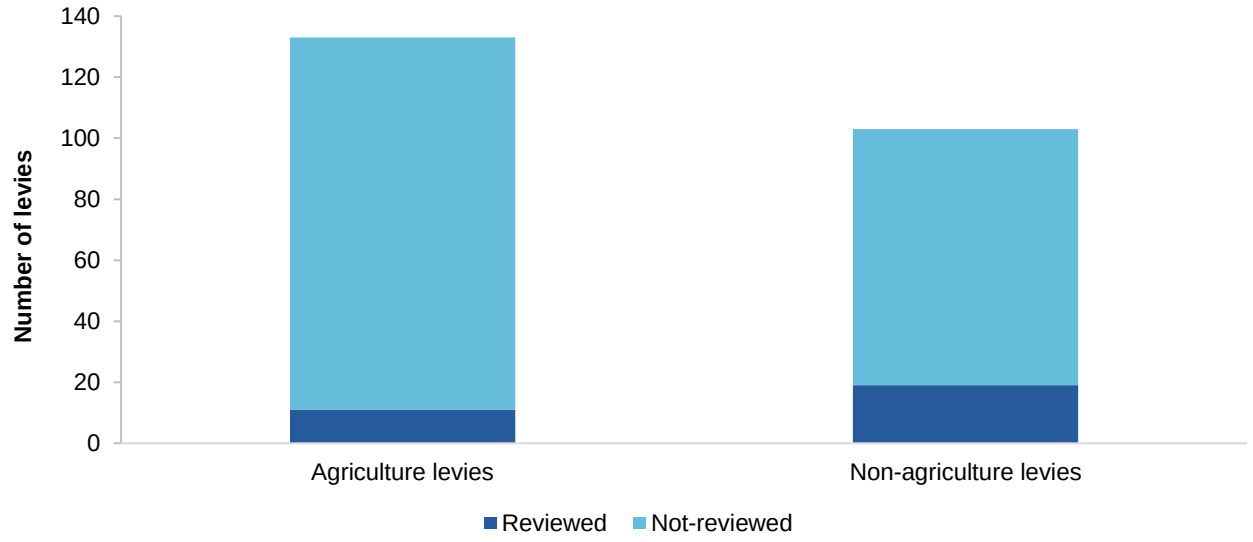
The Productivity Commission aimed to test the 'lived experience' of levies by examining past levy reviews and used the framing questions set out in figure 4.1 to identify limitations in the evidence base.

Periodic reviews and updates of industry levies do not appear to be commonplace (figure 4.2). Of the levies identified in the stocktake (appendix B), the Commission's best efforts[13] identified mostly limited-scale reviews that consisted of determinations of levy rates, and not reviews of the whole levy: 13 of 138 agricultural levies had been reviewed and amended as a result of the review, while 21 of 110 non-agricultural levies had been reviewed.[14]

[13] These numbers are likely underestimated because some reviews might not be publicly available or easy to find.

[14] This did not count voting on levy rates for agricultural levies that did not result in a levy rate change.

Figure 4.2 – Periodic reviews of levies are not commonplace



Source: Commission estimates.

Effectiveness of non-agricultural levies

Assessing the effectiveness of non-agricultural levies is difficult because reviews are hard to track down, their policy goals are wide ranging and there is not always a formal review process. For example, some levy rates were changed to reflect new policies (Department of Treasury and Finance 2021, p. 1), or for equity reasons (NSW Government 2012, p. 1), rather than a robust review of the effectiveness of the levy.

Cost-recovery levies were the most commonly reviewed, but the focus was generally on the rate itself, not the levy. This is because each Commonwealth departments must conduct a review of all existing and potential charging activities within its portfolio at least every five years – known as portfolio charging reviews (Department of Finance 2023c). These reviews, among other things, should analyse the performance for charging activities, and identify opportunities to amend or discontinue charging activities (Department of Finance 2023c). These are not levy-specific reviews as such, and may just take the form of ensuring levies reflect the cost being incurred.

Some reviews showed more robust evaluation of levies. For example, the independent review of the Australian Transaction Reports and Analysis Centre (AUSTRAC) Industry Contribution (IC) Levy attempted to assess the effectiveness of the current levy arrangement and compare it to alternative arrangements and funding models. This involved a formal review process with an issues paper and public submissions (Acacia CRE Pty Ltd 2019, p. i). The review noted that available data hampered 'a proper assessment of the relative efficiency of the IC levy, compared with other sources of funding, or of the efficiency impact of alternative levy structures and parameters' (Acacia CRE Pty Ltd 2019, p. i). Improving data collection and sharing is discussed in section 4.3.

In short, the effectiveness of non-agricultural levies was difficult to gauge due to the number of different types of levies, and transparency issues. From the available evidence, it appears that systematic robust reviews are rarely undertaken to assess whether they are the most efficient funding models and to identify ways in which they might be improved.

Effectiveness of agricultural levies

The available evidence for agricultural levies, which commonly seek to fund sectoral public goods, was found to be more robust than non-agricultural levies. This might reflect the fact that agricultural levies have been around for nearly a century and that levy payers, who are entitled to vote on the existence of the levies, often seek evidence of the value that the levy provides.

Studies that examine the effectiveness of agricultural levies either examine the effectiveness of the levy system as a whole or the benefits of R&D expenditure. The benefits and costs of other levy expenditure, such as marketing or biosecurity are less researched.[15]

Very rarely are levy-specific reviews undertaken – only 13 of 138 agricultural levies had been individually reviewed – with some levies being in place for decades without being reviewed.[16] Of the 13 levy rates that were reviewed, 8 of them were only changed for emergency responses to mitigate things such as plant disease. That is, they were not robust levy evaluations.

Effectiveness of the agricultural levy system

There have been four recent reviews that have examined the agricultural levy system: the Commission's 2011 *Rural Research and Development Corporations Inquiry*; the 2015 *Rural and Regional Affairs and Transport References Committee Review*; the 2016 *Rural and Regional Affairs and Transport Legislation Committee Review*; and an Acil Allen 2016 review.

Broadly, the reviews found that the agricultural levy system was supported by industry representatives and government and thought to be beneficial to the industry and the community. But the reviews did not explicitly estimate the net benefits of the agricultural levy system. Various recommendations were made to improve the efficiency and effectiveness of the system by:

- providing a more consistent framework for establishing and reviewing levies (ACIL Allen Consulting and Minter Ellison 2016, p. 43; PC 2011, pp. 95–96);
- making the system more flexible to levy amendments (PC 2011, p. 269; RRATRC 2015, p. 76);
- ensuring equity in the levy voting system (RRATRC 2015, pp. 76–77);
- minimising the costs of collection (ACIL Allen Consulting and Minter Ellison 2016, p. 48);
- improving data on spending flows (PC 2011, p. 281); and
- ensuring government funding is providing a public benefit rather than crowding out private investment (PC 2011, p. 159).

The three most recent reviews formed the basis of the *Streamlining and modernising agricultural levies legislation: early assessment regulation impact* statement. This report examined two options to address the current complex, duplicative and inconsistent agricultural levies legislation as some legislation expired. On 18 October 2023 the Australian Government introduced six Bills to make agricultural levies legislation simpler and more consistent (DAFF 2023a).

[15] Estimating the benefits of non-R&D agricultural levies may be difficult compared to R&D expenditure. In the case of biosecurity levies, due to the size of the biosecurity system it is difficult to assess the net benefits of the system as a whole and where future value might be created (Dodd et al. 2020, p. v). It is also difficult to link marketing levies to firm profitability due to data constraints and omitted variables; a lot of different factors will affect firm profitability besides marketing.

[16] Although under the principles and guideline for agricultural levies, levies should be reviewed in a manner acceptable to the Australian Government, after a specified time period from when the levy was first imposed (DAFF 2020, p. 10).

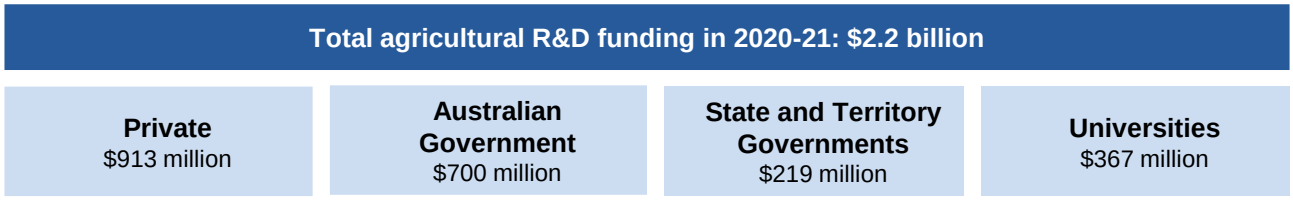
Effectiveness of R&D expenditure

R&D can benefit firms through increasing productivity (intra-market benefits), but can also result in broader community benefits (PC 2011, p. 43). Most evidence focuses on the intra-market benefits, possibly due to the practical challenges of estimating community benefits. It also might reflect that these levies are industry-led, and therefore, are assumed to generate benefits to industry.

Evidence on the effectiveness of R&D investment ranges from survey responses to more rigorous empirical studies. The evidence, despite varying quality, point to positive productivity benefits from R&D investment.

The available evidence is not program- or levy-specific, but rather broader evidence about the benefits of R&D. In some cases, returns to R&D estimates might include overseas R&D expenditure (PC 2011, p. 324), or total domestic R&D expenditure; which can come from other sources besides levies, such as government funding programs and universities (figure 4.3). These studies are then used to infer the benefits delivered by industry levy funded R&D.

Figure 4.3 – Breakdown of total domestic agricultural R&D funding, 2020-21



Source: recreated from Chancellor (2023, p. 7).

Ideally, assessing the benefits of R&D levies would be undertaken by a domestic comparison of returns to R&D in industries not covered by a levy, to industries covered by a levy. Doing so, would allow policymakers to better understand whether levies are the best funding mechanism for achieving their policy goals. In the agricultural sector, such an exercise is nearly impossible; DAFF estimated that more than 90% of agricultural production is covered by a levy (DAFF, pers. comm., 28 June 2023).

Surveys and correlations come with limitations

The fact that primary producers come together to request that an industry levy be imposed upon them suggests that, at a minimum, there are perceived industry benefits. That is, firms will only pool resources together if they believe they will benefit from doing so. Although relying on this notion might mask important problems. For instance, industry might want an R&D levy because it provides access to government funding, which crowds out private investment and reduces their costs.

Available survey evidence supports the idea that levies are beneficial to farmers. For example, the Grain Research and Development Corporation (GRDC) – the organisation responsible for investing grain levy funds into R&D – conduct an annual survey to examine growers attitudes towards paying levies.[17] In the 2022 survey 61% of surveyed farmers were extremely comfortable with paying the levy, while an additional

[17] 1,201 grain growers were randomly selected from GRDC's database of growers. Quotas were set to ensure a robust sample was obtained in each Agro-ecological zone (Watson 2022, p. 6). The sample was weighted by each location to represent the true geological distribution of grain growers (Watson 2022, p. 6).

15% were comfortable (GRDC 2022, p. 17). Further, when asked to rate GRDC's performance, 70% of surveyed farmers rated it very high, with an additional 16% rating it as fairly high (GRDC 2022, p. 17).[18]

Other reviews of agricultural R&D expenditure have examined correlations between productivity and R&D to support R&D investment. ACIL Allen conducted an international benchmarking study where, among other things, they examined the correlation between R&D investment and total factor productivity, suggesting that 'countries [that invested] more in R&D achieved remarkable productivity growth' (2023, p. 18).

While correlations provide some evidence of the effectiveness of R&D expenditure, they fail to control for other factors that influence productivity growth, leading to biased estimates. Agricultural productivity growth is driven by many factors such as: seasonal conditions, technological process, government policy, market conditions and access to infrastructure (DAFF 2023b).

Empirical studies provide the strongest evidence of the benefits of R&D expenditure

Studies that control for factors that affect agricultural productivity provide the strongest evidence for R&D expenditure, which is partly funded by levies.[19]

The empirical work collectively suggests that there have been benefits for Australia from investing in rural R&D (PC 2011, p. 330). Studies conducted by the Australian Bureau of Agricultural and Resource Economics Society (ABARES) estimated that R&D conducted in Australia and overseas was responsible for almost two thirds of average annual productivity growth in Australia's broadacre agriculture sector (Sheng et al. 2011), and that every dollar invested in public R&D generates about $12 of benefit within 10 years (Sheng et al. 2011). More recent research suggested that every dollar invested in R&D results in a $7.82 increase in gross value added for the agriculture sector over 10 years (Chancellor 2023, p. 24).

Further, in a literature review, Chancellor (2023) found that Australian R&D returns were:

> …variable [but] high on average. Alston et al. (2000) found average returns of between 81% and 100%, Mullen (2007, 2010) concluded a range of 15-40%, Shanks and Zheng (2006) 1-46%, and PC (2007) 48-68%. (Chancellor 2023, p. 23)

Empirical studies on R&D do have limitations such as model specification issues, data imperfections and selection bias (PC 2011, p. 319), but the Commission's view is that these provide the strongest evidence available.

Some studies have tried to overcome these limitations as data and modelling techniques have improved. One notable Australian study was conducted by ABARES. The study extended the literature by controlling for international public R&D expenditure. The study indicated that domestic R&D had contributed to about 0.33 percentage points to a 2% long-term (1953–2007) average productivity growth rate for Australian broadacre agriculture (Sheng et al. 2011, pp. 13–14).

Ultimately, testing whether industry levies are the optimal form of R&D funding would require comparing the returns to R&D in sectors not covered by a levy, to those in sectors that funded their R&D through industry levies. Matched levy funding by the Australian Government could also be compared to the returns of agricultural R&D funded out of general taxation revenue.

[18] Although relying solely on surveys has limitations due to selection bias. Some surveys may: have low response rates; not be population weighted; or be filled out by industry groups who may not be representative of their industry. There can also be response bias, where surveys frame questions in such a way that answers do not reflect true preferences.

[19] These studies focus on the productivity benefits of R&D, while controlling for other input and output factors. For instance, common input factors include labour and capital formation.

Limitations of the evidence base

There are notable limitations in the levy evidence base. Most concerningly is that until the Commission developed the stocktake (appendix B) there was no overarching view of the levy system.

Levy reviews often do not compare levies to other funding alternatives, such as general taxation, which is integral to assessing their effectiveness. This is because alternative funding instruments may be able to achieve the policy goal more efficiently.

Less work has examined the adverse consequences that can arise from levies. For example, how levies may impact firms in the leviable market, such as, impacts on profitability or market concentration. Or how levies may create adverse incentives within a market. Without assessing such consequences, it is difficult to undertake a robust net benefit analysis.

Given the limitations in the evidence base, the case for changes to public funding for individual levies should be assessed on the basis of program-specific benefits and costs. Therefore, governments could review specific levies to decide the effectiveness of the program, relative to available policy alternatives. A set-and-forget strategy is not optimal.

Finding 4.1
The levy evidence base needs to be built to allow for sensible reform

The levy evidence base mainly focuses on agricultural R&D levies. Studies that examine the effectiveness of agricultural levies either examine the effectiveness of the levy system as whole, or the benefits of R&D expenditure. Other types of levies appear to be rarely reviewed.

The levy evidence base suffers from limitations. Periodic levy-specific reviews do not appear to be commonplace. When reviews are conducted, they often do not compare levies to other forms of funding or undertake a robust cost benefits analysis. This makes it difficult to assess the effectiveness of different types of industry levies.

Recommendation: given the limitations in the evidence base, the case for changes to public funding for individual levies should be assessed based on programs-specific benefits and costs. Therefore, governments should review specific levies to decide the effectiveness of the program, relative to available policy alternatives.

Implementation: each department administering a levy should create a rolling 3-5 year levy review cycle. These reviews should be published, and utilise the relevant frameworks set out in chapter 2.

4.2 The Commission's empirical approach

The purpose of this research paper was to provide a basis for understanding industry levies and how individual levies affect firm- and industry-level performance. The Business Longitudinal Analysis Data Environment (BLADE) was used to examine the levy system. BLADE contains longitudinal administrative tax data on every GST-paying firm by ANZSIC four-digit industries from 2001-02 to 2018-19 (appendix C) making it suitable for such an analysis.

There were three empirical approaches

Conceptually, there were three empirical ways the Commission tried to improve the levy evidence base.

1. Map levy characteristics data into BLADE based on their industries and provide cross-sectional descriptive statistics. This would allow us to build a picture of leviable markets, as well as gain an understanding of the less researched non-agricultural levies. This includes statistics on market concentration and total turnover (chapter 1).
2. Conduct a market-specific modelling exercise in BLADE. This aimed to identify the impact of a levy on firms in the leviable market; for example, impacts on profitability or market concentration. This would allow a more robust program-specific analysis of certain levies.
3. Events-based studies. The Commission explored the possibility of conducting events-based studies by observing share price movements of publicly listed leviable companies before and after levy implementation. However, such studies were limited due to a small number of suitable levies, and uncertainty around the timing of levy introduction.

… but problems limited our ability to execute these

There were problems that limited our ability to meaningfully undertake the approaches set out above.

1. **There is no central database that collates existing levies.** This meant there was a poor understanding about the number and type of levies, motivating us to compile the stocktake of levies.
2. **There is no levy data in BLADE.** This meant there was a poor understanding about the types of firms and markets that face levies. Therefore, any descriptive statistics or modelling required developing a method to map levy data to the firms/industries in BLADE.
3. **Accessing firm-level levy data for modelling in BLADE.** The Commission could not gain permission to access levy data from the data custodians, or to link the data into BLADE by the ABS in a time conducive for a six-month study.
4. **Only a few levies will be amenable to a market-specific modelling exercise.** BLADE includes data from 2001-2 to 2018-19, which means there is a small sample of levies implemented in a time frame amenable to analysis. Other considerations, such as the size of the levy and identifiability of markets, are important when examining the appropriateness of a levy for modelling.

Given the data access and integration problems, the paper focused on developing the first ever stocktake of industry levies; shining a light on the growing number of industry levies in Australia. These levies were then mapped into BLADE. Results from the mapping exercise were presented in chapter 1 and the Commission's method of mapping levies characteristics into BLADE and its limitations can be found in appendix D.

4.3 Policy considerations to improve the evidence base

Accessing levy data is too difficult

The Commission struggled to gain access to levy data for empirical analysis. It is hard to form generalised reasons why it was so difficult due to the sheer variety of data collectors, holders and organisations. Each levy might have separate problems with data collection, sharing or integration. For example, legislative barriers meant the Commission could not access agricultural levy data (box 4.1).

Some reviews of levies and relevant systems have also pointed to data problems. In an independent review of the biosecurity system it was noted that "the panel [was] unable to estimate how much industry contributes

towards the operation of the national biosecurity system, outside of levies, fees and charges as insufficient data are available" (Craik et al. 2017, p. 128). While a review of the Industry Contribution Levy found that limited data hampered the evaluation (Acacia CRE Pty Ltd 2019, p. i).

Box 4.1 – Agricultural levy case study

The Commission worked with the Department of Agriculture, Fisheries and Forestry (DAFF) and the Australian Bureau of Agricultural and Resource Economics Society to try and gain access to their levy payer data and integrate it into BLADE through the ABS (section 4.2).

The agricultural levy payer data system was formed in response to the 2015 *Rural and Regional Affairs and Transport References Committee Review*, which recommended 'the creation of levy payer databases for all agricultural industries that pay agricultural levies' (RRATRC 2015, p. 74).

The levy payer data could not be accessed because of legislative constraints born out of privacy concerns from industry. The legislation was written so that the data could only be accessed by Research and Development Corporations and the ABS, and not specifically for the purpose of research.[20] These constraints exist to ensure the security of levy payer information (Parliament of Australia 2016).

DAFF noted that data sharing projects that involve multiple parties can take 9–12 months to get ready for analysis (DAFF, pers. comm., 14 November 2023). Steps include: drafting data sharing agreements and obtaining approval between the various data custodians; preparing environments where the data will be hosted and analysed; and if linking with other data sources, further processes need to occur (which includes getting the data ready for linking, the linking process, project proposals, and agreement from the various data custodians) (DAFF, pers. comm., 14 November 2023).

DAFF also noted that draft legislation introduced into Parliament in October 2023, would allow it to share 'relevant levy/charge information' to a prescribed Commonwealth entity, where the information would be used for agricultural research and/or developing agricultural policy (DAFF, pers. comm., 14 November 2023).

Simply, levy data collection, sharing and integration for empirical analysis can be hampered in one of three ways in the Commission's experience.

1. The data is not being collected. For example, the levy data is simply not collected or there is no database that collates it. This might reflect that policymakers have tried to reduce reporting burdens placed on businesses.
2. The data is being collected but not in a useable format. For example, levy data may be collected but not at the firm level or not on a consistent basis, making it less useful for analysis.
3. The data is being collected in a useable format but there are unnecessary barriers to share and integrate the data. This might reflect a culture of risk aversion which leads to unnecessarily long data access processes. Further, there may not be processes in place to handle data requests or integration, as many levies are not systematically reviewed.

[20] *Primary Industries Levies and Charges Collection Act 1991, section. 27A and 27B.*

To this extent, there are practical ways to improve the levy evidence base through better data processes.

Weighing the benefits and costs to improve the levy data system

Accessing data for analysis can provide productivity benefits through facilitating better decision making (PC 2017). In terms of the levy system, these benefits could include:

- improved allocation of government resources. Better data collection and integration can allow for more robust levy evaluation. This could improve levy service delivery, policy and funding allocations
- improved efficiency for the leviable firms. In the case of agricultural levies, having data which can identify the benefits of certain R&D would allow firms to better allocate their resources. Such data could inform levy reviews so that levy rates can be flexibly changed to varying market conditions.

Most importantly, the benefits of improved data collection and integration are contingent on the use of the data for analysis. These benefits should also be weighed against the costs.

- Privacy and security concerns. Often the most binding cost to data sharing is privacy concerns. Individuals or businesses will not want to share their data if there are privacy concerns or they do not see benefit in sharing data. These risks can vary depending on the nature of the dataset (PC 2017, p. 100).
- Collection costs. Collecting data in a useable format can increase administrative costs to government and businesses.
- Costs to build a system for data sharing and integrating. This could include increased data storage, ensuring interoperability with other datasets or designing a new framework for sharing levy data.

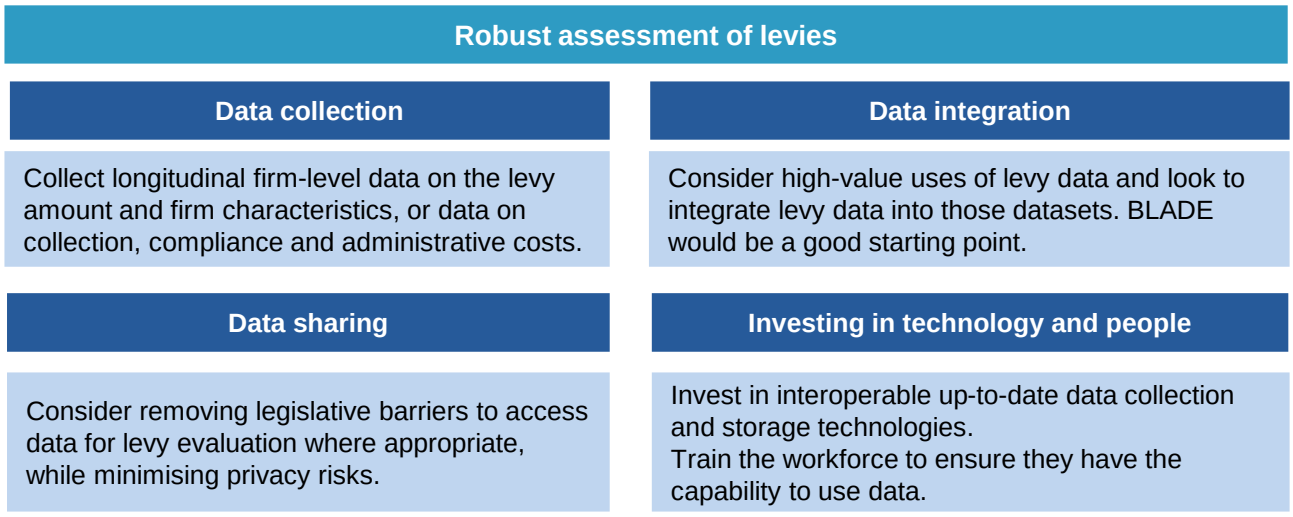
Practical ways to improve data collection, sharing and integration

Currently, it appears that some departments and agencies that administer levies collect data in an ad hoc manner, and do not necessarily have the processes in place to share and link that data. Ideally, for policy making and transparency there should be an environment where the best possible levy data can be collected, shared and integrated with other datasets in a cost-effective way. That way, policymakers and researchers can better evaluate levies.

Creating a data environment for robust levy – and broader policy – evaluation requires a portfolio approach (figure 4.4).[21] This includes ensuring the best possible data collection, integration and sharing, as well as investments in technology and people to improve the use of data.

[21] Any government response might not be uniform, and could depend on the type of levy, the jurisdiction responsible for the levy and the policy outcome.

Figure 4.4 – A portfolio approach to improving data systems



Data collection and integration

Data collection and integration should be thought of when levies are implemented. Instead, it can be an afterthought, which may lead to poor longitudinal data collection and inadequate trust and risk aversion in the processes of data sharing. As the Commission previously noted:

> Governments across Australia also hold lots of data, but are typically not using it to the extent that opportunities being taken overseas exemplify, and lack a comprehensive plan to do so in most cases. (PC 2017, p. 99)

Data should be collected to help evaluate levies against their objectives in a cost-effective way. For example, collecting data on leviable amounts at the firm-level, as well as key characteristics of that firm (such as the Australian Business Number) could provide information for robust policy analysis. Data on levy administration, collection and compliance costs should be collected so that a robust cost-benefit analysis can be undertaken and the administration be as effective as possible.

Governments could also consider high-value uses of data integration across public and private entities (PC 2023, p. 48). For instance, the ATO makes de-identified individual and business tax data available to be linked to other datasets in Personal Level Integrated Dataset (PLIDA) (previously MADIP) and BLADE, for research purposes. In this way, levy data should be collected so that it is interoperable for value-add uses across different datasets.

Integrating levy data into BLADE would be a good first-step. This would allow for more robust assessments of levies and how they impact the markets and businesses they are levied on. This is critical because few levies have been evaluated on their stated policy objectives, especially at the firm-level.

Data sharing

Improving data sharing has been an ongoing focus of the Australian Government. Recent progress includes the Consumer Data Right rollout, a new national system for public sector data sharing – the DATA scheme (box 4.2) – and individual agency collaboration with the private sector such as the ATO's pioneering partnerships with software providers (PC 2023, p. v).

The DATA scheme is a good first step towards improving public sector data sharing and potentially overcoming legislative barriers to sharing. The *Data Availability and Transparency Act 2022* (DAT) has 'an authorisation to

override Australian, state or territory laws, that would otherwise prohibit the sharing, collection and use of certain data when appropriate safeguards are in place' (ONDC 2023). To the extent this overcomes legislative barriers the policy can be a real value-add, but in the experience of this project, the DAT Act would not be sufficient to overcome data sharing concerns (DAFF, pers. comm., 14 November 2023).[22] Government could continue to investigate other ways to overcome legislative barriers, while minimising privacy risks; such as ensuring the wider uses of data are considered as new legislation is made or reviewed.

Box 4.2 – The DATA scheme

The *Data Availability and Transparency (DAT) Act 2022* established the DATA scheme – a scheme that aims to better share public data for the purposes of: government service delivery; informing government policy and programs; and research and development (ONDC 2023). Key to this is building confidence in the use of public sector data and establishing arrangements for sharing data. The National Data Commissioner regulates the DATA scheme.

There are three types of participants in the scheme.

- Data Custodians are Australian Government bodies who control public sector data – they are automatically participants.
- Accredited Users are Australian, state and territory government bodies, and Australian universities who are accredited to use Australian Government data – they must apply to become accredited.
- Accredited Data Service Providers are Australian, state and territory government bodies, and Australian universities. They provide complex data integration, de-identification and secure data access services to support data sharing – they must apply to become accredited (ONDC 2023).

Accredited Users can request Australian Government data from a Data Custodian. An Accredited Data Service Provider can be used to provide data services to support the data sharing project (ONDC 2023).

There are still some barriers to data sharing.

- The *Data Availability and Transparency Act* must comply with the *Privacy Act 1988* to reduce security risks (ONDC 2023).
- Data custodians have no duty to share data, however, must provide reasons to accredited users if refusing a data sharing request (ONDC 2023).
- It is uncertain whether the DAT Act will override all legislative constraints to accessing data.
- Data cannot be shared with the private sector.

Building partnerships

Government departments should build partnerships and agreements with potential users who might create value from levy data. This could include agencies from different levels of government and universities, as well as cross-sector and private uses of data (PC 2023, p. 51). That way, data collection, sharing and integration processes will be more efficient, streamline and trustworthy. Four common features of successful data sharing arrangements were found to be:

[22] At the time of writing, DAFF was investigating this option (DAFF, pers. comm., 14 November 2023).

- working with digital service providers to integrate data requirements into software products that are already used by businesses, to reduce reporting burdens and maintain data quality
- supporting businesses with more limited capacity or digital capability
- considering innovative and high-value uses of data across public and private entities, beyond meeting administrative and operational needs
- using data sharing to build relationships in the broader ecosystem (PC 2023, p. 51).

Investing in technology and people

Improved technology helps lower the costs of data collection and linkage. In practice many benefits of data are realised at scale when digital technologies are used to collect and analyse data, due to the significant lowering of transaction costs, security concerns and reporting burdens on businesses (PC 2023, p. 25). Ensuring technology is interoperable is also important for data linkage. Therefore, government could invest in up-to-date data collection and storage technologies for levy data.

The benefits of data collection will only be realised if these data are used to inform policy evaluation for levies. Therefore, it is important that the workforce has the capabilities to use and examine the levy data.

Finding 4.2
Removing barriers to improve the levy evidence base

There are barriers to data collection, access and integration which can hamper robust evaluations of industry levies. Such factors would vary depending on the type of levy, and could include legislative barriers, data collection problems, risk aversion or a lack of data sharing processes. There are practical ways to improve levy data processes.

- Collecting data relevant to the evaluation of levies – this could include longitudinal firm-level data on the levy amount and firm characteristics, or data on collection, compliance and administrative costs.
- Data access and sharing – consider removing legislative barriers to access data for levy evaluation where appropriate, while minimising privacy risks.
- Data integration – consider high-value uses of levy data and look to integrate levy data into those datasets. BLADE could be a good starting point.
- Technology and people – invest in interoperable up-to-date data collection and storage technologies to reduce the costs and better realise the benefits of levy data collection. Ensure the workforce have the capability to use the data.

Abbreviations

ABARES	Australian Bureau of Agricultural and Resource Economics Society
ABS	Australian Bureau of Statistics
ANZSIC	Australian and New Zealand Standard Industrial Classification
ATO	Australian Tax Office
AUSTRAC	Australian Transaction Reports and Analysis Centre
BLADE	Business Longitudinal Analysis Data Environment
BPORs	Budget Process Operational Rules
CRP	Cost Recovery Policy
DAFF	Department of Agriculture, Fisheries and Forestry
DAT	Data Availability and Transparency
FTA	Fuel, tobacco and alcohol
GDP	Gross Domestic Product
GRDC	Grain Research and Development Corporation
GST	Good and services tax
GVA	Gross value added
HHI	Herfindahl-Hirschman Index
PC	Productivity Commission

Glossary

Industry levy	Industry levies are sector specific micro taxes imposed on individual sectors in Australia. For the purpose of this paper, the Commission's stocktake of industry levies includes any instrument called a 'levy' that is imposed on industries, or industries and households. It also includes instruments that operate broadly in the same way.
Balance sheet tax	Tax on assets or liabilities.
Budget Process Operational Rules (BPORs)	BPORs are rules endorsed by Cabinet that outline the major administrative and operational requirements that Ministers must follow when bringing forward policy proposals for final government approval.
Cost-recovery	Cost-recovery is where Government seeks to recoup the costs of providing a good, service, or regulation. Cost-recovery for sectors can be implemented through industry levies.
Income tax	A tax on profits.
Input tax	A tax on materials and/or labour inputs.
Land tax	A tax on unimproved land value.
Revenue tax	A tax on overall revenue.
Sectoral externalities	A sectoral externality occurs when someone who is not privy to a market transaction is negatively (or positively) affected by that transaction. For example, sector-specific environmental costs that are imposed on society, such as pollution uniquely produced by a particular sector, could be viewed as a sectoral negative externality.
Sectoral public goods	Sectoral public goods are goods or services that all firms in a sector stand to benefit from, but which no individual business has an incentive to sufficiently invest in. Sectoral public goods are non-rival and non-excludable for all businesses in a particular sector. They are non-rival because one business benefiting from the good or service does not prevent another business from benefiting from the good or service, and they are non-excludable because individual businesses in the sector cannot be blocked from benefitting from the good or service. For these reasons, individual businesses have a limited incentive to pay for them by themselves. For example, this can include sector-specific research and development.
Tax design principles	Tax design principles generally advocate for a tax system based on efficiency, equity, simplicity and sustainability. It is generally advocated that taxes should be on broad and efficient tax bases to reduce the efficiency costs of taxation.
Tax efficiency	The efficiency of a tax system is the degree to which taxes raise revenue at least economic cost. That is, with the least possible distortion to the decisions of individuals, households and businesses. Taxes can introduce biases into economic decisions relative to what would otherwise be the case, leading to a welfare-reducing allocation of resources. The less a tax induces behaviour changes, the more efficient it is likely to be. However, in some instances a tax may improve resource allocation – for example, externality taxes that aim to discourage activities that impose costs on society.
Transaction tax	Tax on the price of an individual product.

References

Acacia CRE Pty Ltd 2019, *Review of the AUSTRAC industry contribution levy arrangements*, April, Canberra.

ACIL Allen Consulting 2023, *International benchmarking study – final report*, 6 April, Brisbane.

—— and 2016, *Agricultural levies system – scoping study*, 6 September, Deliverable 2 – Volume 1, Report to the Department of Agriculture and Water Resources, Brisbane.

ACMA (Australian Communications and Media Authority) 2023, *Telecommunications industry levy (TIL) overview*, https://www.acma.gov.au/telecommunications-industry-levy-til-overview (accessed 20 November 2023).

ATO (Australian Taxation Office) 2023, *ATO corporate plan 2022-23*, https://www.ato.gov.au/about-ato/managing-the-tax-and-super-system/in-detail/corporate-plan-current-and-previous-years/ato-corporate-plan-2022-23/appendixes/appendix-a-ato-performance (accessed 1 November 2023).

Australian Government 2015, *Re:think - tax discussion paper*, March, Canberra.

Belcher, B 2015, *The independent review of whole-of-government internal regulation*, August, Department of Finance, Canberra.

Carling, R 2007, *Tax earmarking: is it good practice?*, CIS Policy Monograph 75, Perspectives on Tax Reform (12), The Centre for Independent Studies, Sydney.

Chancellor, W 2023, *Agricultural research and development investment in Australia*, Department of Agriculture, Fisheries and Forestry, https://www.agriculture.gov.au/abares/research-topics/productivity/related-research/agricultural-research-and-development-investment-in-australia (accessed 19 October 2023).

Coorey, P 2022, 'Tax caps are all politics and bad economics: Chalmers', *Australian Financial Review*, 5 April.

Craik, W, Palmer, D and Sheldrake, R 2017, *Priorities for Australia's biosecurity system: an independent review of the capacity of the national biosecurity system and its underpinning Intergovernmental Agreement*, Department of Agriculture and Water Resources, Canberra.

DAFF (Department of Agriculture, Fisheries and Forestry) 2023a, *Biosecurity Cost Recovery Arrangement, Cost Recovery Implementation Statement: 2023–24*, Department of Agriculture, Fisheries and Forestry, p. 43, https://www.agriculture.gov.au/sites/default/files/documents/biosecurity-cost-recovery-implementation-statement-2023-24.pdf (accessed 12 October 2023).

—— 2009, *Levy Principles and Guidelines*.

—— 2020, *Levy guidelines: how to establish or amend agricultural levies*, Canberra.

—— 2023b, *Productivity Drivers*, https://www.agriculture.gov.au/abares/research-topics/productivity/productivity-drivers#management-skill-and-labour (accessed 19 October 2023).

—— 2023c, *Introduction of the Biosecurity Protection Levy: consultation paper*.

Dale, T 2014, *Budget review 2014–15: temporary budget repair levy*, Research paper series, 2013–14, Parliament of Australia, p. 30 May 2014.

DAWE (Department of Agriculture, Water and the Environment) 2020, *Report to levies stakeholders 2018–19*, May, Canberra.

DCCEEW (Department of Climate Change, Energy, the Environment and Water) 2019, *National waste policy: action plan 2019*, Canberra.

—— 2023, *Product stewardship for oil (PSO) scheme*, https://www.dcceew.gov.au/environment/protection/used-oil-recycling/product-stewardship-oil-program (accessed 20 November 2023).

Department of Finance 2022, *Budget process operational rules*, December, Canberra.

—— 2023a, *Australian Government charging policy*, https://www.finance.gov.au/government/managing-commonwealth-resources/implementing-charging-framework-rmg-302/australian-government-charging-policy (accessed 16 October 2023).

—— 2023b, *Australian Government cost recovery policy*, https://www.finance.gov.au/government/managing-commonwealth-resources/implementing-charging-framework-rmg-302/australian-government-cost-recovery-policy (accessed 26 October 2023).

—— 2023c, *Portfolio charging reviews*, https://www.finance.gov.au/government/managing-commonwealth-resources/implementing-charging-framework-rmg-302/portfolio-charging-reviews (accessed 18 October 2023).

Department of Treasury and Finance 2021, *Survey questions - allocation of community support levy funding under the future gaming market*, July, Tasmanian Government, Hobart.

Dodd, A, Stoeckl, N, Baumgartner, J and Kompas, T 2020, *Key result summary: valuing Australia's biosecurity system*, August, CEBRA Project.

ECRC (Environment and Communications) 2018, *Never waste a crisis: the waste and recycling industry in Australia*, June, Canberra.

GRDC (Grain Research and Development Organisation) 2022, *Annual report 2021–22*, October, Canberra.

Henry, K 2009, *Australia's future tax system: final report*, Department of Treasury, Canberra.

Kerin, J 2017, *The way I saw it; the way it was: the making of national agricultural and natural resource management policy*, June, Analysis & Policy Observatory, Melbourne.

Marabito, V and Barkoczy, S 1996, 'What is a Tax? The Erosion of the "Latham Definition"', *Revenue Law Journal*, vol. 6, no. 1.

McDonald, J 1996, *Hypothecation*, Economic roundup, Department of Treasury, Canberra.

Mill, J 1848, *Principles of political economy*, John W. Parker, London.

Northern Territory Government 2022, *Northern Territory circular economy strategy 2022-2027*, May.

NSW EPA (NSW Environmental Protection Agency) 2023, *Information for suppliers of drink containers*, https://www.epa.nsw.gov.au/your-environment/recycling-and-reuse/return-and-earn/role-of-first-suppliers-of-drink-containers (accessed 20 November 2023).

NSW Government 2012, *Torrens assurance levy: ad valorem provisions*, Fact sheet, December, Sydney.

ONDC (Office of the National Data Commissioner) 2023, *Introducing the DATA Scheme*, Office of the National Data Commissioner, https://www.datacommissioner.gov.au/the-data-scheme (accessed 24 October 2023).

Parliament of Australia 2016, *Primary Industries Levies and Charges Collection Amendment Bill 2016*, Parliament of Australia, https://www.aph.gov.au/Parliamentary_Business/Bills_Legislation/bd/bd1516a/16bd102 (accessed 23 October 2023).

PC (Productivity Commission) 2011, *Rural Research and Development Corporations*, Report no. 52, Canberra.

—— 2017, *Data Availability and Use*, Report no. 82, Canberra.

—— 2023, *5-year Productivity Inquiry: Australia's data and digital dividend*, Inquiry Report no. 100, Vol. 4, Canberra.

Richardson, D and Browne, B 2018, *The arbitrary 23.9 per cent tax revenue to GDP figure - from a convenient assumption to a 'speed limit'*, Briefing note, April, The Australia Institute.

Robson, A 2014, 'How Should Regulation be Financed?', *Unpublished manuscript,* Griffith University.

RRATRC (Rural and Regional Affairs and Transport References Committee) 2015, *Rural and regional affairs and transport references committee: industry structures and systems governing the imposition and disbursement of marketing and research and development (R&D) levies in the agriculture sector*, June, Canberra.

Sammut, J 2017, *Fiscal fiction: the real Medicare Levy*, Research report 27, May, The Centre for Independent Studies.

Sheng, Y, Gray, E and Mullen, J 2011, *Public investment in R&D and extension and productivity in Australian broadacre agriculture*, August, Australian Bureau of Agricultural and Resource Economics and Sciences, Canberra.

Taylor, M 2013, 'Is it a levy, or is it a tax, or both?', *Revenue Law Journal*, vol. 22, no. 1, p. article 7.

Tillett, A 2023, 'Booming tax take now exceeds 24pc of GDP', *Australian Financial Review*, 2 July.

Watson, D 2022, *Grains research & development corporation grower survey*, June, Grain Research and Development Organisation.