



Towards Levyathan? Industry levies in Australia

Appendices

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

The Productivity Commission is the Australian Government's independent research and advisory body on a range of economic, social and environmental issues affecting the welfare of Australians. Its role, expressed most simply, is to help governments make better policies, in the long term interest of the Australian community.

The Commission's independence is underpinned by an Act of Parliament. Its processes and outputs are open to public scrutiny and are driven by concern for the wellbeing of the community as a whole.

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A. Consultation

During this research project the Commission consulted with policymakers, administrators of industry levies and law experts.

Table A.1 – Consultation

ACT Revenue Office

AgriFutures

Australian Bureau of Agricultural and Resource Economics

Australian Meat Processor Corporation

Australian Transaction Reports and Analysis Centre

Australian Wool Innovation

Department of Agriculture, Fisheries and Forestry

Department of Finance

Department of Infrastructure, Transport, Regional Development, Communications and the Arts

Environmental Protection Agency Victoria

Grain Research and Development Corporation

Horticulture Innovation Australia

LiveCorp Australia

Meat and Livestock Australia

Office of Circular Economy, Queensland Government

Professor Anthony Gray, University of Southern Queensland

State Revenue Office Victoria

Tax and Transfer Policy Institute

The Treasury

B. Levy stocktake

Appendix B (Excel spreadsheet) is available online at: pc.gov.au/industry-levies.

C. Business Longitudinal Analysis Data Environment (BLADE)

This report uses data from the Business Longitudinal Analysis Data Environment (BLADE). BLADE is a longitudinal financial census of almost all Australian businesses spanning from 2001-02 to 2018-19. BLADE consists of two components.

1. **The core component** – at the core of BLADE are the Australian Tax Offices' Business Activity Statement (BAS), Pay As You Go (PAYG) data, and Business Income Tax (BIT) data.
2. **The modular component** – BLADE also contains 'modules' which link the core data to ABS surveys or administrative datasets from other agencies.

The core component

This report used the core component of BLADE, and merged levy data from the levy stocktake (appendix B) into BLADE, to examine leviable markets.

The core component of BLADE contains longitudinal administrative tax data on every GST-paying firm. BAS are submitted to the ATO by businesses to report their Goods and Services Tax (GST) obligations and contain data on total sales, other GST-free sales, non-capital purchases, capital purchases, export sales and wages and salaries. BIT forms are submitted to the ATO by businesses to report taxable income or loss¹ and contain data on: assets, liabilities, income and expenses, deductions, opening and closing stocks and wage and salary expenses. PAYG statements include headcount data which are used to estimate the number of full time equivalent (FTE) employees.

Total financial year sales revenue from BAS was used in this report (chapter 1). This data were also used to create a Herfindahl-Hirschman Index for market concentration.

Units of measure in BLADE

In BLADE, firms are identified by Australian Business Numbers (ABN), which is limited in a few key ways:

- not every ABN is present in every dataset
- networks of ABNs can obscure the boundaries and functions of firms
- ABN data does not identify mergers and acquisitions in a clear way (McMillan and Burns 2021, p. 10).

¹ There are four main types of businesses that report annual income tax; partnerships and partners; companies; individuals; and trusts and beneficiaries. The availability of data varies across the four types.

Therefore, the ABS created a basic unit of measure called 'type of activity units' (TAUs). TAUs are designed to measure an economic producer, rather than a legal entity or ABN. TAUs are defined by type of production and can have many-to-many relationships with ABNs (McMillan and Burns 2021, p. 10). All firms which are not profiled are assumed to have a one-to-one relationship with an ABN (McMillan and Burns 2021, p. 10). For large businesses with complex structures, the TAU represents a grouping of one or more businesses within an Enterprise Group.

Reference

McMillan, H and Burns, C 2021, *BLADE for productivity research*, Productivity Commission Staff Working Paper, Canberra.

D. Mapping levies into BLADE

Mapping levies into BLADE

The Productivity Commission's method of mapping levies into the Business Longitudinal Analysis Data Environment (BLADE) required two steps. First, creating a stocktake of all the different types of levies by their characteristics. Second, importing and merging levy characteristics data into BLADE by their industry.

Step 1: creating a stocktake

A stocktake of industry levies was collated through desktop research. Levy characteristics data were collected including: the levy name; the level of government (state, territory or Australian); the sector; and the purpose of levies the levy (including cost-recovery, sectoral public good and negative externality (chapter 2)). The Commission also collected data on the annual levy amount, however, the availability of such data varied depending on the levy.

The stocktake highlighted the levy landscape. It showed the number and type of levies that exist, and how this had changed overtime. 248 levies were identified, but this is likely to be an underestimate.

Step 2: mapping levies from the stocktake into BLADE by industry

Levy characteristics data were mapped into BLADE through the four-digit Australian and New Zealand Standard Industrial Classification (ANZSIC) code. BLADE data contain industry information at the four-digit level. The Commission used a judgement-based approach to approximate four-digit industries codes for each levy. This involved examining the underlying goods or services supplied by the leviable agents and matching this to the goods or services supplied in the ANSZSIC four-digit codes. Some levies mapped to single industries, while others mapped to multiple industries.

Mapping levies into BLADE in this way allows for an estimation of various descriptive statistics by levy, levy purpose, level of government and industry. Such descriptive statistics include: profit; profit per worker; revenue; Herfindahl-Hirschman Index (HHI) for market concentration; number of firms; and number of full time equivalent employees. In the report, the Commission presented descriptive statistics for revenue and HHI (chapter 1).

Other mapping methods to consider

Ideally, the most accurate way to map levy data into BLADE would be to access firm-level levy data and integrate it into BLADE by the Australian Business Number.

Integrating firm-level levy data into BLADE can be difficult because: the data may not exist; the data is not collected in an ideal format; or the data cannot be accessed in a timely manner. Problems with accessing firm-level data are discussed in section 4.3.

Rather than focus on BLADE, other existing ABS data sources could be used to highlight leviable industry statistics. For example, gross value added (GVA) data at the one-digit ANZSIC level could be used to show the proportion of levy revenue to industry GVA (chapter 1). Although this method has its limitations, for

example, it is difficult to find levy revenue data for every levy in an industry and the one-digit ANZSIC level may be too broad and understate the impact of a levy on a market.

The mapping approach was not perfect ...

The effectiveness of the mapping approach was hampered by the ability to assign a four-digit ANZSIC code to a levy, and the data clearing process for DataLab.

- 202 of 248 levies could be mapped into BLADE. Some levies were not mapped into BLADE because: they were not levied on businesses; the industries were too granular for the four-digit ANZSIC code; or not all levies were levied on industries.
- Of the levies mapped into BLADE, only some data could be extracted from BLADE due to the DataLab identification rules and the availability of data.² The number of levies extracted from BLADE was contingent on the year and the type of data output. For example, in 2018-19, revenue data for 92 levies could be brought out of BLADE

... and was subject to limitations

The results of this mapping approach should be treated with caution due to limitations.

- **Some levies may be missing from the stocktake** – as best possible, the Commission conducted desktop research to identify all government policies called levies, however, there are likely more out there. Further, there can be other policies that act as levies, but are not called levies, which are not captured in this analysis.
- **Some industries may face multiple levies, which is not represented in this mapping approach.**
- **A simple way of mapping levies** – the market identified in the mapping approach will likely not be the exact leviable market. For example, a number of levies were mapped to the same markets, however, their specific markets likely differ.
- **Cannot include levy exemptions in the data** – the mapping approach does not remove firms who are exempt from the levy because exemptions can be ad hoc, and in some cases, impossible to control for due to data constraints.
- **Some levies could not be mapped into BLADE** – these levies were not mapped into BLADE because: they were not levied on businesses or the industries were too granular for the four-digit ANZSIC code.
- **Levies missed due to DataLab identification rules** – some leviable industries could not be used because BLADE did not have sufficient data or there were large firms within the industry which posed identification risks.
- **Cannot compare with non-leviable markets** – ideally one would compare leviable and non-leviable markets. However, it is difficult to make this comparison as some non-leviable markets in BLADE could face a levy, but this levy could not be mapped into BLADE.

Conclusion

The Commission aimed to provide cross-sectional descriptive statistics on leviable markets to better understand what they look like. Unfortunately there were no firm-level data on levy revenue in BLADE, and it was very difficult to gain access to such data (section 4.3). Instead the Commission mapped levy characteristics data into BLADE using four-digit ANSZIC code. While this technique provided some interesting insights, it suffered from limitations which would reduce the robustness of the results. Section 4.3 discusses how data collection, sharing and integration can be improved to allow for better levy evaluation.

² DataLab has a set of identification rules to stop individuals or businesses being identified through data outputs. Such rules can differ depending on the outputs being extracted from BLADE. Common rules include the rule of 10 and the dominance rules. The rule of 10 states that the underlying (unweighted) count of observations must be greater than 10. The dominance rules state that the largest contributor cannot account for more than 50% of the total value and the largest two contributors cannot account for more than 67% of the total value.

E. International comparison

Many other countries have policy tools that work like levies

In Australia, the word 'levy' is commonly associated with financial charges imposed by governments on individuals, organisations, or sectors to fund specific public services or to achieve policy goals. These differ from general taxation as the revenue raised by the levies is generally earmarked for a particular use. This choice of terminology is also common in other countries like New Zealand, the United Kingdom and Canada. For example, Australia's 'Dairy Produce Levy' and New Zealand's 'Milk Levy' both aim to fund investment in research and development around dairy products (DAFF 2023; DairyNZ 2023).

It is worth noting that there are countries where no revenue raising instruments are explicitly named a 'levy'. Instead, these countries typically use other terms such as 'tax', 'surcharge', or 'fee' for what essentially serves as a levy. For example, in the United States, the Food and Drug Administration (FDA) collects 'user fees' from companies that produce regulated products like pharmaceuticals and medical devices (FDA 2022). The revenue is used to maintain a high level of public health protection without relying on general taxation revenue. In Australia, similar objectives are often met through regulatory cost recovery levies.

Internationally, the term 'levy' is often used when policymakers are targeting big public problems

While only a small number of countries deliberately use the term 'levy', levies in other countries are often used to address specific public problems.

- **Sugar Levies (public health):** this type of levy aims to reduce the negative effects of sugar consumption by taxing the soft drink industry. For example, the United Kingdom's 'Soft Drinks Industry Levy' and South Africa's 'Health Promotion Levy' both aimed to incentivise soft drink manufacturers to reduce sugar contents in their products (Scarborough et al. 2020, p. 3,14).
- **Green Levies (climate change):** this type of levy is designed to promote environmental sustainability. They are often imposed on activities or products that have negative environmental impacts. The revenue generated is typically earmarked to fund eco-friendly projects and initiatives (IEA 2023).
- **Bank Levies (financial stability):** this type of levy is imposed on financial institutions to create a financial buffer that can be used in times of financial crisis. The revenue is often earmarked to fund specific financial stability funds or used to offset the public cost of bank failures (Buch et al. 2016, p. 53; Office for Budget Responsibility 2023).

International comparisons are difficult due to the lack of data

Policymakers often do not distinguish between various financial instruments like taxes, charges, fees, and levies, and use these terms interchangeably. Consultation with Australian revenue collection offices

confirmed the loose way in which these terms can and are used interchangeably. This lack of clear categorisation hampers in-depth analysis and makes it challenging to conduct a comparative analysis of Australia's extensive levy system with those of other countries.

Nevertheless, Australia stands out for its extensive use of 'levy'

Compared to other countries, Australia is unique for its extensive use of the term 'levy' in policy instruments due its broad definition of what constitutes a levy. As of this publication date, Australia has over 248 levies in place, covering a wide range of sectors and policy objectives. This extensive use is unparalleled, with the United Kingdom as the second largest user, although with only a double-digit number of levies.

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F. Biosecurity Protection Levy case study

The Biosecurity Protection Levy

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).

Conceptualising biosecurity

Biosecurity has both public good and negative externality characteristics. Public goods, because people and businesses cannot be excluded from the benefits of biosecurity (non-excludable), and because one person's enjoyment of those benefits does not limit the ability of others to enjoy them (non-rival). Negative externalities, because the introduction of biosecurity risks by one or more sectors can impose costs on others. Both of these market failures are invoked in the stated rationale for separate elements of the sustainable funding package – externalities generated by biosecurity 'risk creators', and public goods enjoyed by 'beneficiaries' of Australia's biosecurity system.

While it is not uncommon for multiple market failures to be identified as contributing to a particular policy challenge, there is value in designing separate policy instruments to address each. Doing so allows interventions to be designed to specifically target the identified market failure. Consider the policy challenge of decarbonising electricity generation which has historically been challenged by two market failures – unpriced negative externalities (greenhouse gas emissions), and the public good nature of research and development into low and zero emissions technologies. Carbon pricing is commonly presented as a response to the negative externality component of the challenge, and intellectual property protections and research and development (R&D) subsidies are commonly presented as a response to the public good nature of R&D. Separate market failures, separate policy instruments.

Where the invocation of multiple market failures becomes challenging is when they send policy makers in conceptually different directions. For example, the sustainable funding packages' framing of biosecurity as a negative externalities challenge suggests that those who create biosecurity risks should be the parties that pay for biosecurity policy. By contrast, framing biosecurity as a public goods challenge suggests that those who benefit from biosecurity policy should pay for it. Simultaneously invoking both market failures suggests that those who create biosecurity risks should pay for having created them, and those who avoid biosecurity risks should pay for the benefit of having avoided them.

Running the *Biosecurity Protection Levy* through the Framework

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 key questions of the policy proposal. Only one of these rationales appears to be invoked in the case of the Biosecurity Protection Levy component of the broader sustainable funding package – public goods ('beneficiaries'). By contrast, the charges on importers 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. These do not constitute a formal review of the policy but provide the opportunity for a practical illustration of the Chapter 2 frameworks.

As set out in Chapter 2, the policy case for sector-specific industry levies is strongest in the case of sector-specific public goods or sector-specific externalities. Biosecurity protections that benefit a wide range of sectors and/or the community more generally can be considered a public good, whereas biosecurity protections that only benefit a narrow group of producers can be considered a sectoral public good. It follows that these frameworks do not explore whether there is a public goods element to biosecurity or negative externalities element to biosecurity, but whether those public goods are sectoral in nature or whether these externalities are only generated by a limited number of sectors, and thereby create a stronger case for adding a sector-specific industry levy on domestic producers to the existing funding sources for Australia's biosecurity system – largely general revenue and cost recovery fees and charges on imports

The policy case for a system of biosecurity regulations, funded by a mix of fines and regulatory cost-recovery levies (see figure 2.5) is not explored here.

Sectoral public goods framework (figure 2.3)

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

Broadly speaking, yes. Biosecurity protection efforts benefit domestic primary 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. The broader community is the ultimate beneficiary of Australia's biosecurity system, through ongoing enjoyment of Australia's native ecosystems, and through access to the range of agricultural, fisheries, and forestry products at a lower price and/or higher quality than would otherwise be the case.

The community-wide benefits of biosecurity suggest that it can be more readily considered a public good, not a *sectoral public good* per se. Public goods are more readily funded out of general revenue not sector-

specific industry levies. All taxpayers contribute to general revenue. This includes primary producers and their employees who contribute to general revenue through company and personal income tax.

While the *sustainable funding* package projects that 44% of its funding will come from general revenue in 2024-25, the sectoral public good framework is designed to help assess the policy case for *adding* a sector-specific industry levy to the existing suite of funding sources.

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

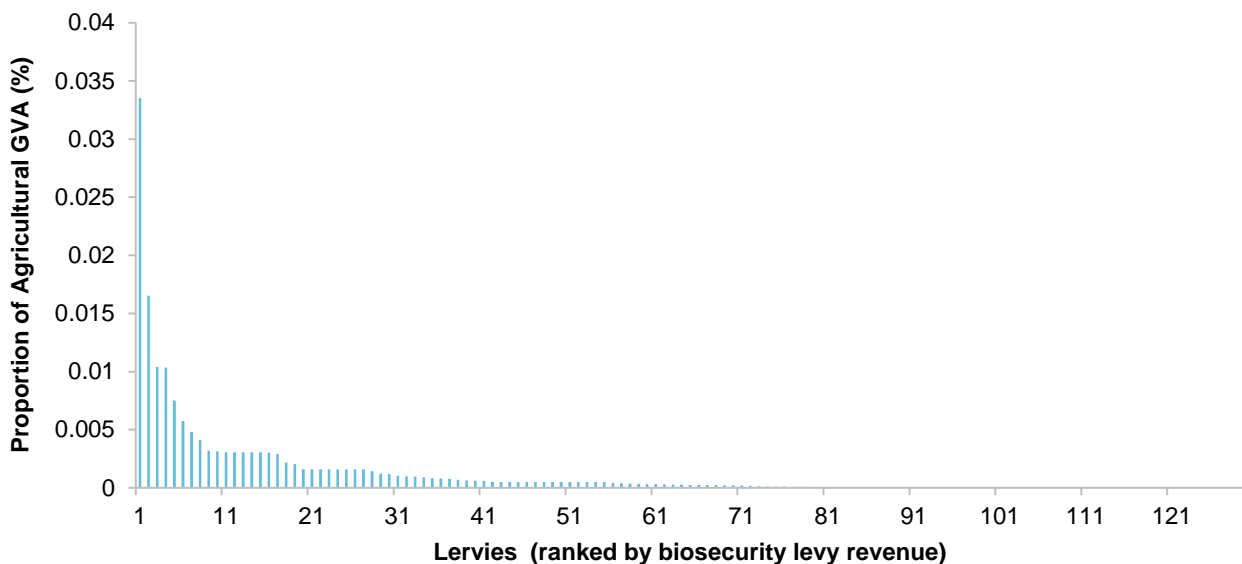
Unclear, when considered in relation to existing policy settings.

Free-riding in the provision of public goods is not a new policy challenge. The public good nature of biosecurity is commonly used to justify the general revenue funding of biosecurity policy, and the sectoral public good nature of managing biosecurity risks that are particularly relevant to specific industries is one of the rationales for the existing agricultural levy system (chapter 2).

While there may be variability in agricultural levy funded biosecurity activities, it is unclear whether that variability reflects differences in the biosecurity risks faced by each sector, or whether it is symptomatic of free-riding by some sectors. Nevertheless, such variability would only raise free-riding questions were some sectoral biosecurity risks to have indirect biosecurity effects on a broader range of sectors.

It is unclear to what extent this has been substantiated as a shortcoming with the current system. Nor is it clear that the proposed *Biosecurity Protection Levy* has been calibrated to reduce this possibility. Indeed, the proposed system of applying the *Biosecurity Protection Levy* at 10% of 2020-21 agricultural levy rates may not satisfy any such free-riding concerns if it means that the overall cost of the *Biosecurity Protection Levy* is borne disproportionately by some sectors relative to others (Figure F.1).

Figure F.1 – Revenue collected by 10% increase on existing agricultural levies



Source: Commission estimates based on stocktake (2023, appendix B)

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

Unclear in the absence of details about what biosecurity activities the *Biosecurity Protection Levy* will fund, and a detailed, sector-specific, cost benefit analysis of those activities.

It is unclear whether the *Biosecurity Protection Levy* will be used to fund biosecurity activities that can be considered sectoral public goods, which, all else equal, would increase the policy case for a levy.

While an expansion of the biosecurity system in general is likely to generate net benefits, with a 2020 study estimating that the benefits generated by Australia's biosecurity system is thirty times greater than its costs, these net benefits are likely to be present regardless of the funding source (Dodd et al. 2020).

Moreover, it is possible that the increased benefits to individual sectors from greater spending on biosecurity activities that benefit a wide range of sectors will be lower than their additional contribution to it. A detailed, sector-specific, cost-benefit analysis would be required to meaningfully answer this question.

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

Unlikely. Agricultural industry levy collection costs tend to be above that of general ATO collection costs. Funding via general revenue is generally cheaper than funding via industry levies. For primary producers that currently do not have a levy, there will be a clear increase in administrative costs.

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

Strictly speaking, no. The proposed levy will generate approximately \$50 million per annum. The Commonwealth biosecurity system funding with the proposed Budget measures is approximately \$800 million per annum in 2024-25 (DAFF 2023c). It is not, however, clear what proportion of the benefit of the increase in total biosecurity funding will accrue to individual primary production sectors (see question 4).

7. Could the industry levy create barriers to entry to the industry?

Unlikely. To the extent that the overall levy paid by individual businesses increases with the revenue of primary producers, it is unlikely to disproportionately impact new entrants to the sector, relative to incumbents.

The agricultural levies on which the new *Biosecurity Protection Levy* will be imposed are generally charged as a percentage of the sale price or on a per-unit basis. As a result, the overall *Biosecurity Protection Levy* paid by individual producers is likely to be greater for larger producers and lower for smaller producers. While it is possible that these costs are more manageable for larger producers than smaller producers, overall it seems reasonable to expect this potential effect to be minor compared to other barriers to entry such as land cost, input costs, transportation costs, access to capital.

While the *Biosecurity Protection Levy* is proposed to be imposed on domestic primary producers alone, the extent to which this can be expected to reduce the competitiveness of the domestic sector, relative to competing imports, will depend on the relative magnitude of the levy to charges imposed on imports by the broader *sustainable funding* package.

Care should be taken to ensure that the overall package does not create higher costs for domestic producers relative to competing imports. Conversely, care should also be taken to avoid higher costs being imposed on imports relative to domestic producers, where those higher costs cannot be justified by the magnitude of biosecurity risks created by imports relative to domestic production. Doing so could inadvertently act as a form of trade protection.

8. Is levy imposed on an efficient tax base?

No. The proposed levy will be imposed on top of existing agricultural levies, which are predominantly transaction taxes, one of the less efficient tax bases available to policy makers.

9. Is there widespread industry support for the levy?

No. Consultation undertaken by Department of Agriculture, Fisheries and Forestry (DAFF), public statements by industry, and consultation with industry stakeholders through this research project suggest that industry is generally opposed to the imposition of the proposed *Biosecurity Protection Levy*.

DAFF consultation on the proposal suggest that while primary producers broadly agree that they benefit from sectoral public goods, they do not see *Biosecurity Protection Levy* as funding sectoral public goods, and argue that increased funding should be provided by general revenue and/or by importers.

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

Unclear, but unlikely. Government has committed to increased transparency and accountability mechanisms as part of the overall *sustainable funding* package, but the levy revenue constitutes 6% of that, and there is no indication that this element would be specifically hypothecated for a purpose related to primary producers (DAFF 2023c). This will constrain the ability of levy payers to be satisfied that levy proceeds are funding 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 on how the levy is imposed. The proposal links the *Biosecurity Protection Levy* to the 2020-21 levy rates, so levy payers cannot reduce their contribution to the proposed levy by voting to change the underlying levy.

Levy payers' ability to formally vote and engage with the levy is a strong indication of a levy's ability to fund sectoral public goods that are valued by the sector.

Sectoral externality framework (figure 2.4)

While the stated rationale for the proposed *Biosecurity Protection Levy* does not invoke negative externalities generated by primary producers, biosecurity has both public good and negative externality characteristics. For completeness, and to highlight the questions that might arise when hypothetically choosing to pursue one of the two distinct policy rationales, we also explore the *Biosecurity Levy Proposal* through the separate application of the sectoral negative externality framework.

1. Does the levied sector generate the targeted negative externality?

Broadly speaking, yes. The *Biosecurity Protection Levy* is proposed to be applied to primary producers. Primary producers can generate biosecurity risks if they fail to undertake prudent 'on-farm' biosecurity risk management practices and if they transport biosecurity risk material between regions.

2. Is the levied sector the only sector that generates the negative externality (when most broadly defined)?

Strictly speaking, no. Primary producers are not the only sectors that generate biosecurity risks. Any transport of biosecurity risk material between different locations (across international borders, or between regions within national borders) can present biosecurity risks. Biosecurity risk also arises through natural pathways, for example, the wind-borne movement of pests and diseases across international borders.

This suggests that a broad range of domestic transport activities (of both goods and people) beyond the levied sectors could also present biosecurity risks. The more diffuse the source of the externality the greater the argument for pricing externalities through economy-wide mechanisms, or the funding of related programs through general taxation revenue. While the broader *sustainable funding* package includes funding from a range of sources, it is unclear to what extent the additional contribution that primary producers will make through the *Biosecurity Protection Levy* - above and beyond their contribution to general revenue, and

contributions to sectoral biosecurity activities through the existing agricultural levy system - is commensurate with their contribution to total biosecurity risks.

3. Could the levy be greater than the cost of the externality generated by the levy payer?

Unclear. The *Biosecurity Protection Levy* is proposed to be equivalent to 10% of 2020-21 agricultural levy rates, and a comparable metric for primary producers that do not currently pay an industry levy (DAFF 2023c). Because the industry levies paid by each sector themselves vary, the overall value of the proposed *Biosecurity Protection Levy* placed on top of existing agricultural levies, will also vary between sectors (figure F.1). Given that the current value of existing agricultural levies does not solely reflect biosecurity related considerations, it is unclear to what extent the total cost of levies paid by each sector will be proportionate to the biosecurity risks created by each sector.

4. Will the total amount of levy paid by businesses fall directly as they reduce their negative externalities?

No. The design of the proposed levy means that the levy paid by domestic primary producers will not fall alongside the biosecurity risks that can be attributed to their activities. That is, improved biosecurity risk management processes and activities by individual primary producers will not result in a reduction in their Biosecurity Protection Levy liability.

5. Could the industry levy create barriers to entry to the levied sector?

Unlikely. To the extent that the overall levy paid by individual businesses increases with the size of primary producers, it is unlikely to disproportionately impact new entrants to the sector, relative to large incumbents.

The agricultural levies on which the new *Biosecurity Protection Levy* will be imposed are generally charged as a percentage of the sale price or on a per-unit basis. As a result the overall *Biosecurity Protection Levy* paid by individual producers is likely to be greater, the greater their overall revenue. While it is possible that these costs are more manageable for larger producers it seems reasonable to expect that this potential effect will be minor compared to other barriers to entry such as land cost, input costs, transportation costs, and access to capital.

While the *Biosecurity Protection Levy* is proposed to be imposed on domestic primary producers alone, the extent to which this can be expected to reduce the competitiveness of the domestic sector, relative to competing imports, will depend on the relative magnitude of the levy to charges imposed on imports by the broader *sustainable funding* package.

Care should be taken to ensure that the overall package does not create higher costs for domestic producers relative to competing imports. Conversely, care should also be taken to avoid higher costs being imposed on imports relative to domestic producers, where those higher costs cannot be justified by the magnitude of biosecurity risks created by imports relative to domestic production. Doing so could inadvertently act as a form of trade protection.

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

No. As proposed, the levy will be imposed on top of existing agricultural levies, which are predominantly transaction taxes, one of the less efficient tax bases available to policy makers.

7. Could the design of the industry levy create any perverse incentives for the sector?

Unclear. At this stage, it is unclear whether the proposed *Biosecurity Protection Levy* will generate any perverse behavioural incentives for the sector.

8. Could the overall costs of industry levy funded program be greater than the social costs of the externality?

Unclear. This would require a cost-benefit analysis that weighed the cost of the biosecurity risks generated by domestic primary producers that are not funded by the existing agricultural levy system, against the costs of the Biosecurity Protection Levy funded component of the overall biosecurity program.

9. Would it be cheaper to fund the program through general revenue than an industry levy?

Likely. Agricultural industry levy collection costs tend to be above that of general ATO collection costs. Funding via general revenue is generally cheaper than funding via industry levies. For primary producers that currently do not have a levy, there will be a clear increase in administrative costs.