



Evaluation of Country of Origin Labelling reforms

Cost Benefit Analysis

Department of Industry, Science, Energy and Resources

Final Report July 2021

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Glossary

Acronym	Full name
ABS	Australian Bureau of Statistics
ACCC	Australian Competition and Consumer Commission
ACL	Australian Consumer Law
AMAG	Australian Made Australian Grown
AMCL	Australia Made Campaign Limited
ANZSIC	Australian and New Zealand Standard Industrial Classification
BCR	Benefit cost ratio
CAGR	Constant annual growth rate
CBA	Cost benefit analysis
CoOL	Country of Origin Labelling
DAWR	Department of Agriculture and Water Resources
FY	Financial year
IT	Information technology
NFF	National Farmers' Federation
NPV	Net present value
NSW	New South Wales
p.a.	per annum
QR	Quick Response
RIS	Regulatory impact statement
SKU	Stock keeping unit
WTP	Willingness to pay

Executive summary

Purpose of this analysis and report

Deloitte Australia has been commissioned by the Commonwealth Department of Industry, Science, Energy and Resources (the Department) to conduct an evaluation of the Country of Origin Labelling (CoOL) scheme (the Scheme) introduced in 2016 through the Country of Origin Food Labelling Information Standard (2016).

CoOL is a specific type of food labelling informing consumers about where food products are made, produced or grown.¹ While it has been mandated in some form in Australia from 1994, substantial changes were made to the scheme in 2016. At this point, the Australian Government made changes to the CoOL Scheme, removing it from the Food Standards Code and regulating it through Australian Consumer Law (ACL) instead.

This change distilled the role of government monitoring and enforcement from multiple agencies down to a single regulator (i.e. the Australian Competition and Consumer Commission [ACCC]), creating more consistency. Amongst other changes, the Australian Government introduced visual elements into the CoOL information to help make the information easier to find and read for consumers.¹

This report outlines the Cost Benefit Analysis (CBA) workstream of the evaluation. While this is a standalone report, it should be read in conjunction with the final evaluation report, which uses the findings in this report together with the findings of the broader review to make recommendations for the Scheme.

Scope of the cost benefit analysis

The CBA was designed to support responses to the following evaluation questions:

1. How cost-effective was the provision of information to consumers and businesses?
 - a) What were the realised costs to business associated with meeting the new CoOL requirements?
2. What lessons can be drawn from the program to improve the efficiency or effectiveness of future initiatives?

In answering the first question, a retrospective (i.e. backward-looking) analysis of the current scheme was undertaken: a comparison of the current CoOL Scheme against that of the scheme that was in place up to June 2016.

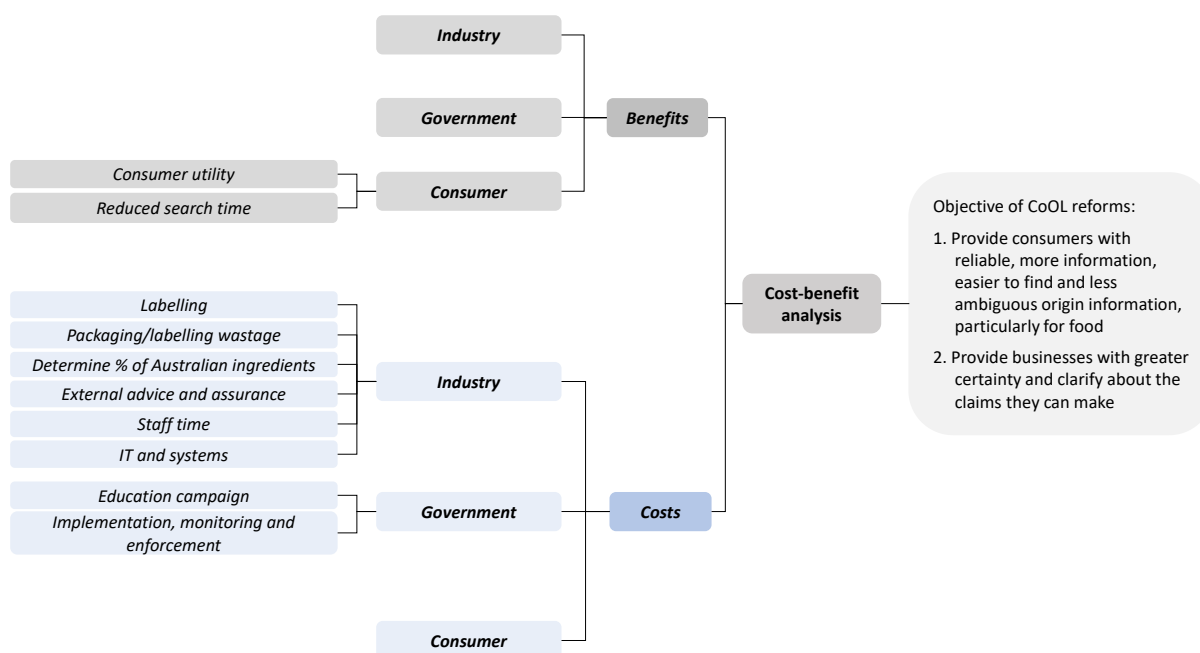
For the second question, a prospective (i.e. forward-looking) analysis of six future-state options was undertaken to assess the expected impact of potential reforms to the current CoOL regulations.

Overview of methodology

In this project, the CBA weights the monetised costs of operating CoOL – both in its current format and in hypothetical future-state formats – against the monetised benefits of doing so. Costs and benefits are considered across three stakeholder groups – consumers, government and individuals. Figure i provides a conceptual overview of the model structure.

¹ Department of Industry, Innovation and Science (2015). *Country of origin labelling Consultation Regulation Impact Statement Consumer Affairs Australia New Zealand*. Accessed October 2020. <https://ris.pmc.gov.au/sites/default/files/posts/2015/12/RIS-for-consultation-for-country-of-origin-labelling-for-food.pdf>

Figure i: Prospective model schematic tree



Objective of CoOL reforms:

1. Provide consumers with reliable, more information, easier to find and less ambiguous origin information, particularly for food
2. Provide businesses with greater certainty and clarify about the claims they can make

Source: Deloitte Access Economics.

The model calculates the relative costs and benefits of the option under consideration against the costs and benefits of a counterfactual – what would have been the net benefit of *not* pursuing the option of interest. This is true of both the retrospective and prospective components of the analysis. A total of seven options were considered, as shown in Table i and Table ii.

Table i: Retrospective analysis options

Option	Description
Base Case	The counterfactual is the CoOL regulations in place up until July 2016.
Status Quo	The counterfactual is the CoOL regulations currently in place, relative to the Base Case.

Source: Deloitte Access Economics.

Table ii: CBA options for prospective analysis

Option	Description
Status Quo	CoOL regulations currently in place.
Education	Status Quo with consumer education campaign.
Reduced regulatory burden	Reduce regulatory requirements by providing an option for businesses to provide CoOL information online while retaining instructions on their labelling on how to access this information.
Online shopping platforms	Extend CoOL information to online shopping platforms for those retailers who already have to comply with CoOL regulation.

Option	Description
Remove non-priority exemption	Remove the distinction between priority and non-priority food products so that CoOL regulations apply uniformly to all food products.
Increase information	Include more information about ingredients from outside Australia
Expand to foodservice	Expand the current CoOL regulations to all businesses in the foodservice sector

Source: Deloitte Access Economics.

Retrospective analysis findings

The retrospective analysis compares the benefits of the Scheme in its current format against a hypothetical scenario where the scheme in its prior format was retained. The analysis considers the period from FY2016 to FY2041.

The CBA reports two measures – Net present value (NPV) and the benefit cost ratio (BCR). NPV is the value of all future cash flows over the entire life of an investment discounted to the present. When the NPV or BCR is positive, the Status Quo is preferred relative to the Base Case. In this instance, the Status Quo has an NPV of \$3.9 billion over 26 years. The BCR of our retrospective analysis (3.326) indicates that on average, the Status Quo generates about \$3.30 in benefits for every dollar of costs incurred over the period of analysis.

Key findings regarding costs and benefits were that the one-off implementation costs of CoOL were much greater than the ongoing cost of implementation. Consumer benefits were largely driven by the time savings associated with the introduction of visual elements on the label.

Taken together, these results imply that the current scheme represents a cost-effective change from the previous scheme.

Outputs were compared to economic modelling of the Scheme undertaken by Arup in 2016. There were several key differences in the modelling approach adopted by Deloitte compared with the Arup approach, notably that the Deloitte analysis considers the potential benefits of the scheme through its willingness to pay (WTP) analysis, where the ARUP model did not monetise consumer utility. This change means that the scheme breaks-even sooner in the Deloitte modelling than in the Arup modelling.

Prospective analysis findings

The prospective analysis compares the benefits of the Scheme in its current format against six hypothetical scenarios where various aspects of the CoOL regulation are changed from their current state (options). The analysis considers the period from FY2022 to FY2041.

Findings across the six options are summarised in Table iii. The table presents the costs and benefits for each of the prospective options, relative to the Status Quo.

Table iii: Prospective analysis summary results

	Option 1 – Education	Option 2 – Reduced regulatory burden	Option 3 – Online shopping platforms	Option 4 – Remove non-priority exemption	Option 5 – Increased information	Option 6 – Expand to foodservice
Total costs (\$m)	11.7	349.0	403.2	31.3	94.8	3,509.6
Total Benefits (\$m)	141.4	8.7	29.4	291.5	98.5	1,256.2
Net NPV (\$)	129.7	-340.2	-373.7	260.2	3.7	-2,253.4
BCR	12.13	0.025	0.073	9.321	1.039	0.358

Source: Deloitte Access Economics analysis.

The costs of options are dominated by industry compliance costs, and these costs vary depending on the extent of the regulatory changes proposed by each option. Overall, the education option is the cheapest option followed by the option to remove the non-priority exemption. The most expensive option in the analysis is expanding CoOL to the foodservice sector.

The benefits captured in the analysis generally comprise of an upward adjustment in consumer WTP, relative to the Status Quo. This upward adjustment reflects the higher level of utility (or happiness or satisfaction) that consumers receive from obtaining more CoOL information, relative to the Status Quo. In each instance, an upward adjustment to WTP is only captured for the segment of consumers who indicated that they wanted this additional information to ensure fair attribution of the proposed option and the benefits derived from the option.

The only exception to this is the reduced regulatory burden option, where existing CoOL is removed from the physical labels of some products and is instead placed online. In this option, the benefits are the avoided labelling costs accrued by industry. From a consumer perspective, however, this option results in CoOL information being less accessible at the point of purchase – increasing the search time faced by consumers who still wish to access the information. There is also a decrease in the pool of consumers who *do* access this information as some may simply choose not to seek the information online if it is not immediately available. As such, there is a downward adjustment in consumer WTP for CoOL information in this option and there is also a cost of higher consumer search times, relative to the Status Quo.

Overall, any option with a positive NPV and a positive BCR is deemed preferred relative to the Status Quo in terms of the modelling. The CBA results, therefore, indicate that the education option and the option to remove the non-priority exemption are preferred relative to the Status Quo (i.e. the current CoOL Scheme), while the increased information option is broadly the same as the Status Quo.

Notably, it is inadvisable that any policy decision is made on the basis of a positive CBA alone. These results suggest that there is an economic benefit to pursuing the option, however, timing or implementation should be judged with consideration to risk profile and stakeholder readiness for change. As such, these results are considered alongside other relevant considerations as part of the Deloitte Evaluation Report.

Cut flowers

The Department's discussion paper noted that "industry groups often advocate for greater information about the origin of fresh-cut flowers to be more readily available to consumers." As such, the inclusion of Cut Flowers in the CoOL Scheme was considered in our analysis.

Industry consulted through this project fell into two camps. The first were of the view that a CoOL Scheme was desirable to inform customers about the origin of cut flowers; to correct apparent misperceptions that cut flowers (particularly natives) are all grown in Australia, and to guard against biohazard and biosecurity risks.

The second were of the view that the CoOL Scheme would present practical difficulties given the complex supply chain for flowers and the selling environment. Our consumer research suggested that access to more precise country of origin information for cut flowers was not important to most consumers.

Having considered the nature of the industry and stakeholders' positions, the benefits of including cut flowers in the existing CoOL Scheme (even with specific provisions relating to cut flowers) are unlikely to exceed the costs. However, due to the difficulty in obtaining the data needed to inform CBA modelling, it was determined that the costs and benefits of extending the CoOL Scheme for cut flowers would be discussed qualitatively rather than quantitatively.

Foodservice businesses

There was particular interest from some industry representatives for the inclusion of CoOL for foodservices, including specific products (seafood and meat). Results indicate the costs of extending CoOL to foodservices would exceed the benefits, largely driven by costs to foodservice businesses to comply with CoOL regulations coupled with the sheer size of the foodservice industry – and the number of small businesses in the industry.

Additional analysis was undertaken to consider a sub-option for foodservices; the inclusion of CoOL for seafood or seafood and meat products under either an ingredient specific option (businesses would report country of origin information for all menu items containing seafood and/or meat) or an establishment specific option (foodservice businesses would report country of origin information in one overarching binary statement). Voluntary and mandatory options were also considered.

Similarly, results indicate the costs of extending CoOL to seafood or seafood and meat products in foodservices would exceed the benefits. The BCR under the mandatory establishment specific sub-option for seafood is close to one and higher than the BCR for the ingredient specific sub-option. This reflects the establishment specific sub-option requires less compliance time for businesses compared to an ingredient specific sub-option which would involve updates to individual menu items.

These results should be seen as indicative only. Further analysis is required before the CoOL scheme is to be implemented in the foodservice sector given the heterogenous nature of the businesses, coupled with the divergent views among stakeholders on its merit. Further, it will be important to test the WTP specifically for seafood products, as this drives the benefits. The latter is particularly important given the establishment specific options are close to a BCR of one.

Interpretation and considerations of CBA findings

Key to interpreting the modelling results is an understanding of what they represent and – equally – their limitations. The modelling is developed to stylistically weight costs against benefits. The tool is useful for determining whether there is value – monetary or otherwise – in investing in a changed course of action over retaining the current state.

In some cases, the costs and benefits under consideration are intangible. In real life, they will never be realised as physical dollars. The technique allows for a comparison of apples against apples, but the language around 'returns' can be misleading if taken literally.

The modelling is constrained by the accuracy of its assumptions. Care has been taken in developing the data collection methodologies, which inform modelling assumptions to improve their accuracy. However, in many cases, businesses and consumers have been asked to forecast their circumstances in a hypothetical future state. Therefore, the accuracy of the future-state forecast becomes dependent on their capacity to accurately predict their own future state.

With the objective and limitations of CBA modelling in mind, the findings of this report – specifically those which relate to the future state – should be considered in tandem with findings from consultation, literature review and an overarching consideration of the economic, business and policy environment of the day. Taken together, these factors inform the recommendations of the overarching evaluation. These are put forward in Deloitte’s Evaluation Report.

1 Introduction

This chapter outlines the context for this review, the purpose of the cost benefit analysis, and explains how the cost benefit analysis will help answer the some of the evaluation questions of this review.

1.1 Context of food labelling in Australia

Food labels are designed to provide consumers with information that:

- Communicates important health and safety information about products (including use by dates, allergens or storages and preparation instructions)²
- Assists them in making consumption choices, which align with their preferences (e.g. information on nutrition, health claims and ingredients)³
- Differentiates products in the market by marketing certain aspects/attributes of products (e.g. indicating whether a product is organic or outlining the country of origin).⁴

Challenges of information asymmetry arise if decisions on food labelling are unregulated. In the absence of government regulation, food producers know more about their products than consumers do, and are able to select which information consumers receive.⁵ Firms are incentivised by profit to only reveal information on their food labels if that information is likely to generate more revenue than costs. This problem is called information asymmetry and it prevents consumers from making consumption choices that align with their preferences.⁶

Furthermore, without any standardisation of food labelling claims, consumers are likely to be confused by, or mislead by, or misinterpret information on food labels.⁷ The absence of any standardisation or verification of food labelling claims also means that firms are unable to convince consumers of the validity of labelled information.⁸

Food labels are regulated in Australia by Food Standards Australia and New Zealand, who administer the Food Standards Code.⁹ One recent exemption to this is the regulations on CoOL for food, which is now regulated through Australian Consumer Law (ACL) rather than through the Food Standards Code.

² Food Standards Australia and New Zealand (2019) *Labelling*, FSANZ website, Cited January 2021.

<https://www.foodstandards.gov.au/consumer/labelling/pages/default.aspx>

³ Henneberry, SR and Walter JA (2003), 'Emerging Roles For Food Labels: Inform, Protect, Persuade', *Journal of Food Distribution Research*, 34, 3.

<https://ageconsearch.umn.edu/record/27045>

⁴ Henneberry SR and Walter JA (2003) 'Emerging Roles For Food Labels: Inform, Protect, Persuade', *Journal of Food Distribution Research*, 34, 3, cited October 2020.

<https://ageconsearch.umn.edu/record/27045>

⁵ Golan E, Kuchler F and Mitchell L (2000), *Economics of food labelling*, Economic Research Service, U.S. Department of Agriculture, Agricultural Economic Report No. 793, cited October 2020.

<https://ageconsearch.umn.edu/record/34069/files/ae000793.pdf>

⁶ Ibid.

⁷ Hughes C, Wellard L, Lin J, Suen K and Chapman K (2013). Regulating health claims on food labels using nutrient profiling: What will the proposed standard mean in the Australian supermarket? *Journal of Public Health Nutrition* 16, 12, cited online October 2020.

<https://www.cambridge.org/core/journals/public-health-nutrition/article/regulating-health-claims-on-food-labels-using-nutrient-profiling-what-will-the-proposed-standard-mean-in-the-australian-supermarket/BA9E06C71761B352013B99F1E2CEA7D2>

⁸ Golan E, Kuchler F and Mitchell L (2000).

⁹ Food Standards Australia and New Zealand (2019).

CoOL is a specific type of food labelling informing consumers about where food products are made, produced or grown.¹⁰ It has been mandated in Australia since 1994 when the Federal Government introduced new regulations to do so under the *Trade Practices Amendment (Origin Labelling) Bill*.¹¹ The Government's intention in introducing this Scheme was to encourage the Australian industry to label products which have their origin in Australia, and to give consumers a reliable means of identifying Australian products.¹²

Research suggests that Australian consumers see value in food labelling as a substitute for personal interaction with food suppliers.¹³ As most Australians have minimal engagement with food production processes, consumers use labelling to reduce the difficulty they would otherwise face in identifying the composition, source and nutritional quality of ingredients.¹⁴

In July 2016, the Australian Government made changes to the CoOL Scheme by removing it from the Food Standards Code and regulating it through ACL instead. This change distilled the role of Government monitoring and enforcement from multiple agencies down to a single regulator (i.e. ACCC), creating more consistency. In addition, the Government introduced visual elements into the CoOL information to help make the information easier to find and read for consumers.¹⁵

1.2 Purpose and positioning of this report

The Department of Industry, Science, Energy and Resources (the Department) has engaged Deloitte Australia to undertake an evaluation and CBA of the impact of the 2016 reforms to CoOL regulations.

Specifically, the evaluation seeks to address the following overarching question:

Have the Country of Origin Labelling reforms improved consumer access to information about the origin of food, and clarified the origin claims businesses can make about their products, without imposing excessive costs on those businesses?

This report outlines the CBA workstream of the evaluation. While this is a standalone report, it should be read in conjunction with the final evaluation report, which uses the findings in this report together with the findings of the broader review to make recommendations for the CoOL Scheme.

1.3 Scope of the CBA

The CBA was designed to assist in answering the following evaluation questions:

1. How cost-effective was the provision of information to consumers and businesses?
 - a) What were the realised costs to business associated with meeting the new CoOL requirements?
2. What lessons can be drawn from the program to improve the efficiency or effectiveness of future initiatives?

¹⁰ Department of Industry, Innovation and Science (2015), *Country of origin labelling Consultation Regulation Impact Statement Consumer Affairs Australia New Zealand*, cited September 2020. <https://ris.pmc.gov.au/sites/default/files/posts/2015/12/RIS-for-consultation-for-country-of-origin-labelling-for-food.pdf>

¹¹ Fischer WC and Byron P (1997) 'Buy Australian Made'. *Journal of Consumer Policy* 20(89), cited September 2020.

<https://link.springer.com/article/10.1023/A:1006856704983#citeas>.

¹² Parliament of The Commonwealth Of Australia House Of Representatives (1994). 'A Bill for An Act to amend the Trade Practices Act 1974, and related purposes'. Cited October 2020. [https://www.aph.gov.au/binaries/library/pubs/explanmem/docs/tradepacticesamendment\(originallabelling\)bill1994.pdf](https://www.aph.gov.au/binaries/library/pubs/explanmem/docs/tradepacticesamendment(originallabelling)bill1994.pdf)

¹³ Tonkin E, Webb T, Coveney J, Meyer SB, and Wilson, AM (2016) 'Consumer trust in the Australia food system: The everyday erosive impact of food labelling'. *Appetite*, 103. <https://doi.org/10.1016/j.appet.2016.04.004>

¹⁴ Tonkin E, Coveney J, Meyer SB and Wilson AM and Webb, T (2016) 'Managing uncertainty about food risks: Consumer use of food labelling'. *Appetite*, 107, Cited October 2020. <https://doi.org/10.1016/j.appet.2016.04.004>

¹⁵ Department of Industry, Innovation and Science (2016) *Decision Regulation Impact Statement Consumer Affairs Australia New Zealand*, Cited September 2020. <https://ris.pmc.gov.au/sites/default/files/posts/2016/04/Country-of-Origin-Labelling-Decision-RIS-1.pdf>

In answering the first question, a retrospective (i.e. backward-looking) analysis of the current CoOL Scheme was undertaken: a comparison of the current CoOL Scheme against that of the scheme that was in place up to June 2016. The retrospective analysis considers the actual costs incurred to implement the current CoOL Scheme and the actual impact the CoOL Scheme has had to date. Together, this information generates insights on the cost effectiveness of the current CoOL regulations.

For the second question, a prospective (i.e. forward-looking) analysis of six future-state options was undertaken to assess the expected impact of potential reforms to the current CoOL regulations.

1.4 Structure of the report

The remainder of this report is structured as follows:

- Chapter 2: Methodology
- Chapter 3: Retrospective analysis
- Chapter 4: Prospective analysis
- Chapter 5: Option 7: Cut flowers
- Chapter 6: Conclusion.

2 Methodology

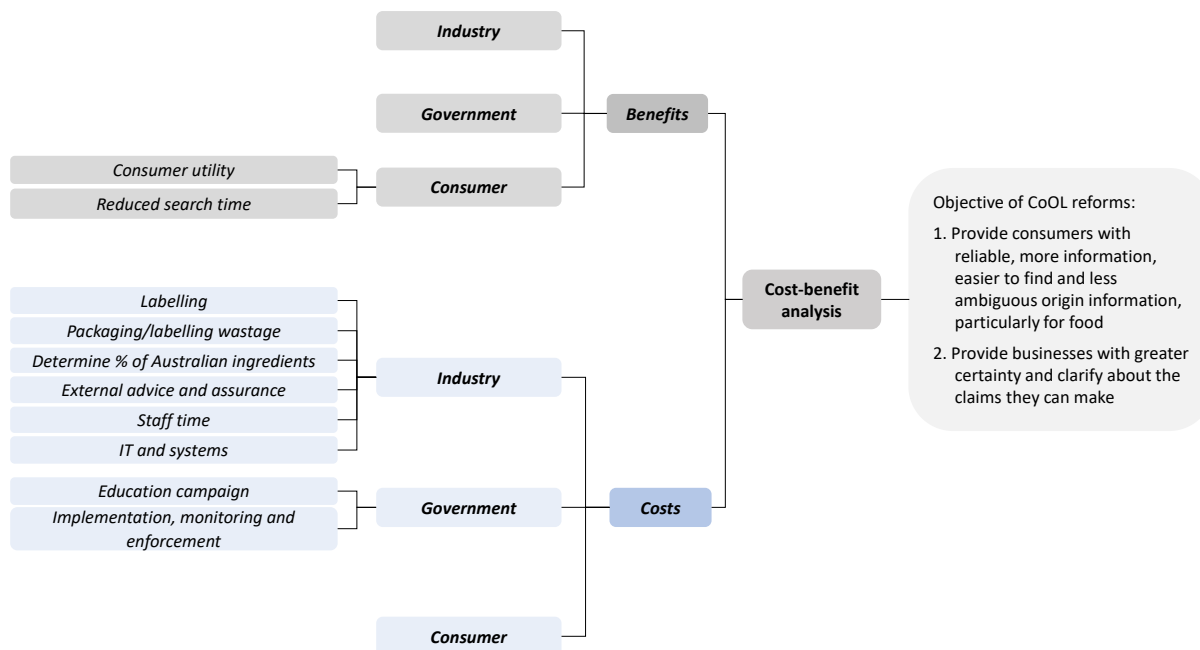
This section outlines the methodology and data sources underpinning in the CBA.

2.1 Modelling approach

The intent of CBA modelling is to present a stylised forecast of the costs and benefits implied by certain actions – either taking place in real time or being considered for the future. The modelling technique monetises costs and benefits incurred across stakeholder groups to monetary values which allows for the weighting of costs of performing certain actions against the benefits.

In this project, the CBA weights the costs of operating the CoOL Scheme – both in its current format and in hypothetical future-state formats – against the benefits of doing so. Costs and benefits are considered across three stakeholder groups – consumers, government and individuals. Figure 2.1 provides a conceptual overview of the model structure.

Figure 2.1: Prospective model schematic tree



Source: Deloitte Access Economics.

The model calculates the relative costs and benefits of the option under consideration against the costs and benefits of a counterfactual – what would have been the net benefit of *not* pursuing the option of interest. This is true of both the retrospective and prospective components of the analysis.

Our modelling considers seven such comparisons. The costs and benefits of the current state of regulations versus those that would be incurred had the regulations not been introduced (retrospective analysis). And, the costs and benefits of six different future-state options compared against the costs and benefits incurred in the current state (prospective analysis). To model out each of these scenarios, the model cost and benefit assumptions entered into the model are altered to best approximate the costs and benefits that would be realised in the modelled scenario.

2.1.1 Costs

Costs incurred by industry groups include labelling costs, packaging/labelling waste costs, costs to determine the percentage of Australian ingredients, costs for external advice and assurance, staff time and information technology (IT) and system costs. Costs incurred by the Government include education campaign costs and implementation, monitoring and enforcement costs.

While no costs are noted to be included for consumers, it is possible that an option will drive 'negative benefits'. For example, if an option is associated with increased search time costs, this is a 'negative benefit'. The model essentially treats negative benefits as though they were costs – driving up the ratio of costs to benefits.

2.1.2 Benefits

Benefits in the modelling are captured in accordance with those incurred by industry groups, the government and consumers.

The schematic does not note benefits for either government or industry. However, across the seven comparisons, there are instances in which both governments and industry experience 'negative costs', which are essentially treated in the modelling as benefits. For example, industry experiences 'negative costs' or 'savings' when they have options to reduce their costs of product labelling.

Equally, where a scenario is modelled that implies the Government will need to complete a lower level of monitoring or enforcement, the costs of this activity are reduced. Again, this 'negative cost' drives a reduction in the ratio of costs to benefits.

Benefits for consumers are more subjective. They fall into two categories. The first relates to the amount of time a consumer takes to search for, and comprehend information, relating to country of origin for a product. Where this information is made more accessible (put onto a label) and easier to comprehend (using visual cues and presented in a consistent manner), consumers seeking this information experience a timesaving in their search. Time value is commonly monetised using basic assumptions about the average value of time (calculated using average wage rates). This method is used to estimate the opportunity cost of time expended, or, in this instance, saved.

The second benefit is consumer utility. The CoOL Scheme operates to inform consumers who have a desire to include CoOL information into their purchasing decisions in a standardised, regulated manner about the products they wish to purchase. The CoOL Scheme does not exist to influence the decision in any way – indeed, research indicates that consumers use this information in a variety of different ways – but, rather, it exists to simply inform the decision. Consumer utility of the Scheme, therefore, is associated with access to better information. Utility is an intangible benefit -meaning it is not readily monetised. One technique for monetising it is the use of WTP studies.

WTP is the additional amount a consumer is willing to pay for an isolated attribute of a product – in this instance, CoOL. WTP studies are either stated – ask consumers what they *would* pay – or revealed – observe what consumers *do* pay. While revealed studies are more accurate, stated preference studies are much more practical. In this work, we utilised a stated preference study – operated through the consumer survey tool – and then discounted this value to account for the empirically observed difference between stated and revealed measures of WTP.

2.1.3 Period of analysis

The structure of the CBA differs somewhat between the retrospective analysis and the prospective analysis. The two components of the CBA have different sets of costs and benefits that are monetised and differ in their duration.

The retrospective analysis considers the period from financial year (FY) 2016 (i.e. July 2015 to June 2016) to FY2041 (i.e. July 2040 to June 2041). The period starts in FY2016 to reflect the commencement of the current CoOL regulations, which occurred in June 2016.

The prospective analysis considers the period from FY2022 to FY2041 because any changes to the existing CoOL regulations would likely only commence in FY2022. Given the significant upfront

costs associated with any changes to such broad regulation, the duration of the analysis should be long enough to objectively assess the full long-term impact of such changes. A timeframe of 20 years is considered reasonable to achieve this, hence our model extends to FY2041. For consistency purposes, the respective analysis also extends to FY2041.

2.2 Retrospective analysis

The retrospective analysis of the CBA model was undertaken to assess the cost effectiveness of the current CoOL Scheme, relative to that of the CoOL Scheme that was in place prior to June 2016.

In the retrospective analysis, the counterfactual is the previous CoOL framework (i.e. the CoOL regulations in place up until 2016) and in our analysis it is referred to as the Base Case. The retrospective analysis compared the current CoOL framework (referred to as the Status Quo) against the Base Case to assess the cost-effectiveness of the current CoOL regulations. The options for the retrospective analysis can be found in Table 2.1.

Table 2.1: Retrospective analysis options

Option	Description
Base Case	The counterfactual is the CoOL regulations in place up until July 2016.
Status Quo	The counterfactual is the CoOL regulations currently in place, relative the Base Case.

Source: Deloitte Access Economics analysis.

2.2.1 Base Case

The Base Case is the CoOL regulations that were in place up until July 2016, which included:

- The Australian and New Zealand Food Standards Code that specified which foods must have a Country of Origin statement on their labels. Generally imported food, packaged priority products and unpackaged priority products had to display appropriate Country of Origin labels, while non-priority foods (seasoning, confectionery, tea and coffee, biscuits and snack food, bottled water, soft drinks and sport drinks and alcoholic beverages) and the foodservice sector was exempt.
- The Australian and New Zealand Food Standards Code distinguished between packaged and unpackaged products where:
 - Packaged foods were labelled with a statement on the packaging that identifies the country where the food was made, produced or grown.
 - Unpackaged food (like fresh fruit, vegetables or meat) was displayed with labelling that indicated the country/countries of origin.
- CoOL was displayed in text form without any visual elements. This meant that consumers had to search packaging or labels for specific text to understand the country of origin. Because of this, the 'Australian Made Australian Grown' (AMAG) logo was voluntarily used by some businesses to help customers identify products that were 'Australian Made'. The logo was privately administered and licensed by the Australia Made Campaign Limited (AMCL).
- Businesses could rely on safe harbour defences when making CoOL claims. The safe harbour defence for a 'Made in' claim was a two-part test; the substantial transformation test and the cost of production test.
- The monitoring and enforcement of CoOL was split amongst several agencies, including:
 - State and territory government food regulators who were responsible for enforcing the CoOL obligations of the Australian and New Zealand Food Standards Code.
 - The ACL regulators were responsible for taking action if the CoOL representations were misleading or deceptive.
 - Department of Agriculture and Water Resources (DAWR) undertook testing and inspections of imported food on advice from Food Standards Australia New Zealand.

2.2.2 Status Quo

Under the Status Quo, the current regulatory framework for CoOL would be maintained into the future. The Status Quo represents the current policy settings and would not change any existing regulatory arrangements. The following details the key regulations under the current CoOL framework:

- It is compulsory for all food produced for retail sale in Australia to include a statement identifying where the item was grown, produced, made or packed. Additionally, all priority food labels are required to include:
 - The AMAG logo (if grown, produced or made in Australia)
 - Information on the source of ingredients (if grown, produced, made or packed in Australia), including:
 - A statement on the proportion of Australian ingredients
 - A bar chart displaying the proportion of Australian ingredients that aligns with the above statement
- Businesses using the AMAG kangaroo logo no longer incur a cost.
- The criteria for making country of origin claims – and the associated safe harbour defences – have changed. The 'Made in' defence states that an item has been substantially transformed in a country if:
 - It was 'Grown' or 'Produced' in that country.
 - As a result of one or more processes undertaken in that country, the goods are fundamentally different in identity, nature or essential character from all their imported ingredients or components.
- A good is 'Packed in' a single country only if its ingredients were sourced from two or more countries. Consequently, food from one country that was packed in another identifies where the food originated, as well as where it was packed.
- Monitoring and enforcement of the legislative framework is primarily undertaken by the ACCC.

2.3 Prospective component

The prospective analysis of the CBA model was undertaken to assess the impact of six future-state options for the CoOL Scheme. In the prospective analysis, the counterfactual is the current state of regulations – what would occur into the future if no change were enacted from the current state of regulations. To continue our terminology from the retrospective analysis, we term this counterfactual 'Status Quo'.

Counter to the retrospective component of the CBA model, where the options were pre-defined based on the scope of the analysis, the prospective analysis required an options development process. Prospective future-state options were canvassed from the evidence compiled through the stakeholder consultation process with consumers, industry and the government. The key findings from stakeholder engagement can be found within the main evaluation report.

The future-state options were then refined for modelling through the application of the following principles:

- **Practicality:** does the option propose a practical solution that addresses a concern that is held by some subset of stakeholders?
- **Construction:** can the option be constructed with a relatively strong degree of realism – that is, is there sufficient information available to inform key assumptions?
- **Exclusivity:** ensure the options are – as much as is practical – mutually exclusive to allow for systematic testing of varying various factors.

Six options were defined in accordance with these principles. The seventh option relating to cut flowers was identified, but set aside for qualitative discussion only. A sub-option was identified for option six 'expand to foodservice', whereby the CoOL Scheme would apply to seafood items only. This discussion is contained in Chapter 5 of this report.

The draft CBA options were presented to the Department in a workshop and feedback was sought to refine the options. The following sections outline the finalised CBA options for the prospective analysis.

A summary of each CBA prospective option and Status Quo (counterfactual) for the prospective analysis is detailed in Table 2.2.

Table 2.2: CBA options for prospective analysis

Option	Description
Status Quo	CoOL regulations currently in place.
Education	Status Quo with consumer education campaign.
Reduced regulatory burden	Reducing regulatory requirements by providing an option for businesses to provide CoOL information online while retaining instructions on their labelling for how to access this information.
Online shopping platforms	Extend CoOL information to online shopping platforms for those retailers who already have to comply with CoOL regulation.
Remove non-priority exemption	Remove the distinction between priority and non-priority food products so that CoOL regulations apply uniformly to all food products
Increase information	Including more information about ingredients from outside Australia.
Expand to foodservice	Expand the current CoOL regulations to all businesses in the foodservice sector.
Sub-option: expand to foodservices (seafood)	Expand the current CoOL regulations to all businesses in the foodservice sector for seafood products only.

Source: Deloitte Access Economics analysis.

2.3.1 Modelling of the options

An overview of the costs and benefits captured within each CBA option is shown in Table 2.3.

Table 2.3: Quantifying the benefits and costs of each option

Option	Costs	Benefits
Education	<ul style="list-style-type: none"> ↑ Educational campaign (government) ↑ Implementation, monitoring and enforcement (government) 	<ul style="list-style-type: none"> ↑ Proportion of consumers who receive utility from more country of origin information (consumers)
Reduced regulatory burden	<ul style="list-style-type: none"> ↑ Implementation, monitoring and enforcement(government) 	<ul style="list-style-type: none"> ↓ Product labelling (industry) ↓ Increased search time (consumers)
Online shopping platforms	<ul style="list-style-type: none"> ↑ Implementation, monitoring and enforcement (government) ↑ Labelling, packaging/labelling wastage, determine the percentage of Australian ingredients, external advice and assurance, staff time and IT and systems (industry) 	<ul style="list-style-type: none"> ↑ Proportion of consumers who receive utility from more country of origin information (consumers)
Remove non-priority exemption	<ul style="list-style-type: none"> ↑ Implementation, monitoring and enforcement (government) ↑ Labelling, packaging/labelling wastage, determine the percentage of Australian ingredients, external advice and assurance, staff time and IT and systems (industry) 	<ul style="list-style-type: none"> ↑ Proportion of consumers who receive utility from more country of origin information (consumers)
Increase information	<ul style="list-style-type: none"> ↑ Implementation, monitoring and enforcement (government) ↑ Labelling, packaging/labelling wastage, determine the percentage of Australian ingredients, external advice and assurance, staff time and IT and systems (industry) 	<ul style="list-style-type: none"> ↑ Proportion of consumers who receive utility from more country of origin information (consumers)
Expand to foodservice	<ul style="list-style-type: none"> ↑ Implementation, monitoring and enforcement (government) ↑ Labelling, packaging/labelling wastage, determine the percentage of Australian ingredients, external advice and assurance, staff time and IT and systems (industry) 	<ul style="list-style-type: none"> ↑ Proportion of consumers who receive utility from more country of origin information (consumers)

Source: Deloitte Access Economics analysis.

2.4 Key data and assumptions

The CBA relied on data to monetise costs and benefits, which is summarised in Table 2.4.

Table 2.4: Key data used in the CBA

Source	Description of data	Retrospective	Prospective
Australian Bureau of Statistics (ABS): 8165.0	<p>Number of businesses currently subject to CoOL as estimated by the number of food and beverage retail businesses and the number of food and beverage manufacturing businesses.</p> <p>Retail businesses included those in the supermarket and grocery store sector (Australian and New Zealand Standard Industrial Classification (ANZSIC) 5110); fresh meat, fish and poultry retailing sector (ANZSIC 5121) and the fruit and vegetable retailing sector (ANZSIC 5122). Food and beverage manufacturers across several relevant ABS categories were also considered.¹⁶</p> <p>This data reported not only the number of business, but also the number of employees they had. It was assumed that small business employed up to 19 employees, medium business employed 20-199 employees whilst large business had at least 200 employees. In FY19, it is estimated that there were 27,261 small businesses, 2,858 medium business and 184 large businesses subject to the current CoOL regulations.</p>	✓	✓
2016 Arup CBA model	<p>Number of stock keeping units (SKUs) in Australia currently subject to CoOL regulations was estimated at 78,779 using data collected by Arup. It was also assumed that 90% of these SKUs were packaged products while the remaining 10% were unpackaged as per the Arup's assumptions.</p> <p>Given the CoOL requirement differ for priority and non-priority goods, it is further assumed that 80% of all SKUs are priority goods while 20% are non-priority goods according to stakeholder consultation.</p>	✓	✓
Business survey	<p>Deloitte conducted a survey of businesses currently/likely impacted by the CoOL Scheme. The survey results informed many of the cost assumptions used in the CBA. It also informed assumptions around how businesses had</p>	✓	✓

¹⁶ Note: This includes poultry farming (eggs); meat processing; poultry processing; bacon ham and small good manufacturing; seafood processing; milk & cream processing; ice cream manufacturing; dairy product manufacturing n.e.c; fruit and vegetable processing; oil and fat manufacturing; grain mill product manufacturing; cereal, pasta and baking mix manufacturing; bread manufacturing (factory based); cake and pastry manufacturing (factory based); biscuit manufacturing (factory based); sugar manufacturing; confectionery manufacturing; potato, corn and other crisp manufacturing; soft drink, cordial and syrup manufacturing; beer manufacturing; spirit manufacturing; wine and other alcoholic beverage manufacturing; other food manufacturing n.e.c; bakery goods- non-factory based; vinegar; prepared meals that may be consumed as is or that need only heating; meal bases, dressings and sauces; jams, honey, marmalades, peanut butter, marmalades and other spreads; seasoning; and bottled water.

Source	Description of data	Retrospective	Prospective
	benefited from the June 2016 changes to the CoOL Scheme.		
Consumer survey	Deloitte conducted a statistically representative survey of Australian consumers to understand the value they place on CoOL information, their understanding of information provided, their views on the current regulations and potential improvements to the CoOL Scheme. The survey results informed many of the benefit assumptions used in the CBA.	✓	✓
Stakeholder consultation	<p>Deloitte conducted consultations with businesses, which largely qualified the findings in the business survey.</p> <p>Deloitte held consultations with government to understand the costs to implement, monitor and enforce CoOL regulations.</p> <p>Deloitte hosted consumer focus groups and conducted shopper exit interviews. This data was used to qualify the findings in the consumer survey and to assist in the identification of prospective options.</p>	✓	✓
Literature	The analysis relied on literature, including the 2016 CoOL Decision Regulatory Impact Statement (hereafter, referred to as, the 2016 regulatory impact statement (RIS)), the 2014 Senate inquiry report titled <i>A clearer message for consumers</i> , and research commissioned by Colmar Brunton to inform assumptions around the performance of the current CoOL Scheme and the pre-2016 scheme.	✓	
Office of Best Practice Regulation Guidance Note	The analysis adopts a 7% discount rate as recommended in the guidelines. The analysis also adopts the guidelines and recommendations for the values of consumer leisure time at \$29/hour and the value of productive staff time at \$65.45.		
ABS: 8165.0	<p>Number of food service businesses that would be subject to CoOL if the current regulations were expanded to the entire foodservice sector.</p> <p>It is estimated that in FY2019 there were 74,627 small, 6,783 medium and 300 large foodservice businesses across Australia.</p>		✓

Source: Deloitte Access Economics analysis, using data as mentioned in table.

2.5 Interpretation and limitations

The two numbers which have greatest significance when interpreting the results of cost benefit modelling are the NPV and the BCR. The NPV is the benefits of pursuing an option (relative to the counterfactual of not doing so), minus the costs of pursuing that option (also calculated relative to the counterfactual). Quite simply, where the NPV is positive, then the benefits of pursuing the option outweigh the costs.

The BCR provides a mechanism for speaking about the return to investment. For example, a BCR of 0.5 can be read as 'for every dollar invested in making the modelled change, you receive 50 cents in return'. A BCR of 1.5 on the other hand implies that 'for every dollar invested in making the modelled change, you receive \$1.50 in return'. As such, we look for a BCR over the value of '1' to test whether an option represents a good investment. The larger the BCR, the greater anticipated return to the modelled investment.

Key to interpreting the modelling results is an understanding of what they represent and, equally, their limitations. The modelling is developed to stylistically weight costs against benefits. The tool is useful for determining whether there is value – monetary or otherwise – in investing in a changed course of action over retaining the current state.

In some cases, the costs and benefits under consideration are intangible. In real life, they will never be realised as physical dollars. The technique allows for a comparison of apples against apples, but the language around 'returns' can be misleading if taken literally.

The modelling is constrained by the accuracy of its assumptions. Care has been taken in developing the data collection methodologies, which inform modelling assumptions to improve their accuracy. However, in many cases, businesses and consumers have been asked to forecast their circumstances in a hypothetical future state. Therefore, the accuracy of the future-state forecast becomes dependent on their capacity to accurately predict their own future state.

This is particularly salient in the calculations pertaining to consumer utility. The objective of the CoOL regulations is to ensure businesses provide consumers with the information they want in order to make purchasing decisions in line with their preferences.¹⁷ The inclusion of WTP benefits in the CBA is therefore an attempt to monetise the level of satisfaction consumers receive from the current CoOL Scheme.

It is important, however, to note that there are limitations associated with measuring consumer utility through WTP studies. WTP studies cannot be taken at face value. There is often a difference between what consumers say they are willing to pay (i.e. stated preferences) and what they are actually willing to pay when observed in real purchasing situations (i.e. revealed preferences). Academic literature provides several potential causes of this difference between stated and revealed preferences, including:

- WTP research primarily focuses on consumer intentions to purchase a product without any limitations on purchasing behaviour, and the stated preferences represent what consumers would ideally like to purchase, but not what they are realistically able to purchase¹⁸.
- WTP studies do not consider the search costs that consumers face in real-life purchasing environments. Many consumers who state a preference for locally produced food are unwilling to search for the relevant information in-store¹⁹.
- WTP studies analyse consumer behaviour when CoOL is the only product characteristic that changes, but in real-life purchasing environments, many other factors like brand, price, and quality also influence decision-making²⁰.
- WTP studies capture stated preferences often in a general context (e.g. the willingness to accept a certain percentage increase in the cost of a 'weekly grocery bill' in exchange for country of origin information), but consumer's revealed preferences relate to a set of individually purchased products.²¹

To account for this known level of bias, our modelling incorporates an adjustment factor to attempt to reduce the difference between stated and revealed preferences. However, caution

¹⁷ Competition and Consumer Amendment (Country of Origin) Act 2017

¹⁸ Koschate-Fischer N, Diamantopoulos A and Oldenkotte K (2012), 'Are consumers really willing to pay more for a favorable country image? A study of country-of-origin effects on willingness to pay'. *Journal of International Marketing*, 20(1), 19-41.

¹⁹ Zepeda L and Leviten-Reid C (2004). 'Consumers' views on local food'. *Journal of Food Distribution Research*, 35(3), 1-6.

²⁰ Agrawal J and Kamakura WA (1999), 'Country of origin: A competitive advantage?' *International Journal of Research in Marketing*, 16, 255-267.

²¹ Carrington MJ and Neville BA (2010), 'Why ethical consumers don't walk their talk'. *Journal of Business Ethics*, 97, 139-158.

should still be applied when assessing the reported WTP benefits because consumer utility is an abstract concept that imperfectly attempts to monetise real world benefits realised by consumers.

Like consumers, businesses are not immune to the tendency to misstate the cost of change. Indeed, the difference in reported costs ahead of the implementation of the current CoOL Scheme, relative to far lower actual incurred business costs, shows that businesses also have inaccuracies in forecasting capabilities. Once more, to account for this, a conservative modelling approach has been adopted where possible. The reader is reminded to be mindful of the imprecisions inherent in cost benefit forecasting when interpreting and using the results.

3 Retrospective analysis

This chapter outlines the results of the retrospective CBA.

3.1 Key costs and benefits

This section considers the costs and benefits to industry, government and consumers for the retrospective component of the CBA. The costs and benefits for each group are considered and a description of each cost and benefit are shown in Table 3.1.

Table 3.1: Costs and benefits monetised in retrospective analysis

Element	Stakeholder	Description
Costs		
IT and record-keeping systems	Industry	Cost associated with IT upgrades and record keeping and management
Staff time	Industry	Cost associated with retail and management staff time and labour costs
External advice and assurance	Industry	Cost associated to obtain professional service to improve the quality and transparency of information and to reduce the change of problems occurring from incorrect information
Packaging/labelling wastage	Industry	Cost associated with packaging/labelling wastage because of unusable and non-compliant packaging from revised CoOL reforms
Determining the proportion of Australian ingredients	Industry	Cost associated with resources used to trace and determine the correct proportion of Australian ingredients throughout the supply chain
Labelling costs	Industry	Cost associated with labelling (stickering) SKUs
Education campaign	Government	Cost associated with the information and education campaign
Training	Government	Cost associated with retraining of the revised CoOL reforms
Monitoring and enforcement	Government	Cost associated with monitoring and enforcement of the revised CoOL reforms
Benefits		
Avoided licencing fees	Industry	Benefit associated with reduced licence fees under revised CoOL reforms.

Element	Stakeholder	Description
Time saving for no longer applying 50% production test	Industry	Benefit associated with removal of 50 production cost tests due to aspects of the legislative framework becoming redundant
Consumer time saving from visual elements	Consumers	Benefit associated with ease of interpretation created by the visual display of information creates a time saving for consumers who seek country of origin information
WTP for CoOL information	Consumers	Benefit associated with the willingness of consumers to pay for certain country of origin information

Source: Deloitte Access Economics.

3.2 Results

The results of the retrospective analysis are presented in Table 3.2. The table presents the costs and benefits for the current CoOL Scheme, relative to the Base Case. Overall, the CBA estimates that compared to the Base Case, the current CoOL Scheme (i.e. the Status Quo) costs \$1.7 billion more in present value terms and generates \$5.66 billion more in benefits. The cost and benefit breakdown is discussed in more detail in 3.2.2 and 3.2.3.

Table 3.2: CBA calculation for retrospective analysis

Status quo	Sum real cashflow (\$)
Cost to Government	
Total cost – All	16,900,000
Cost to industry	
IT and system	36,399,136
Staff time	1,166,672,344
External advice and assurance	101,462,847
Packaging/labelling wastage	78,261,817
Determine the percentage of Australian ingredients	127,043,579
Labelling cost	176,205,632
Total costs	1,702,945,355
Manufacturer: management costs	
Avoided AMAG licencing costs	31,325,569
Time saving for no longer applying 50% production test	23,444,052

Status quo	Sum real cashflow (\$)
Consumer time saving - visual elements	3,945,746,785
Consumer WTP for CoOL	1,663,800,479
Total Benefits	5,664,316,885
Total Benefits	5,664,316,885
Net NPV	3,961,371,530
BCR	3.326

Source: Deloitte Access Economics analysis.

3.2.2 Realised costs of the CoOL Scheme

The realised costs for the current CoOL Scheme amount to \$1.7 billion in present value terms between FY2016 and FY2041, relative to the Base Case. This means that the current CoOL Scheme is estimated to cost \$1.7 billion more than the scheme that was in place prior to June 2016. Major drivers of the difference in cost between the Base Case and Status Quo include the following changes to the regulations, which were captured in the Status Quo:

- The inclusion of visual elements like a bar chart indicating the proportion of Australian ingredients for priority products
- The mandatory use of the AMAG logo when making a 'Made in', 'Product of' or 'Grown in' Australia claim

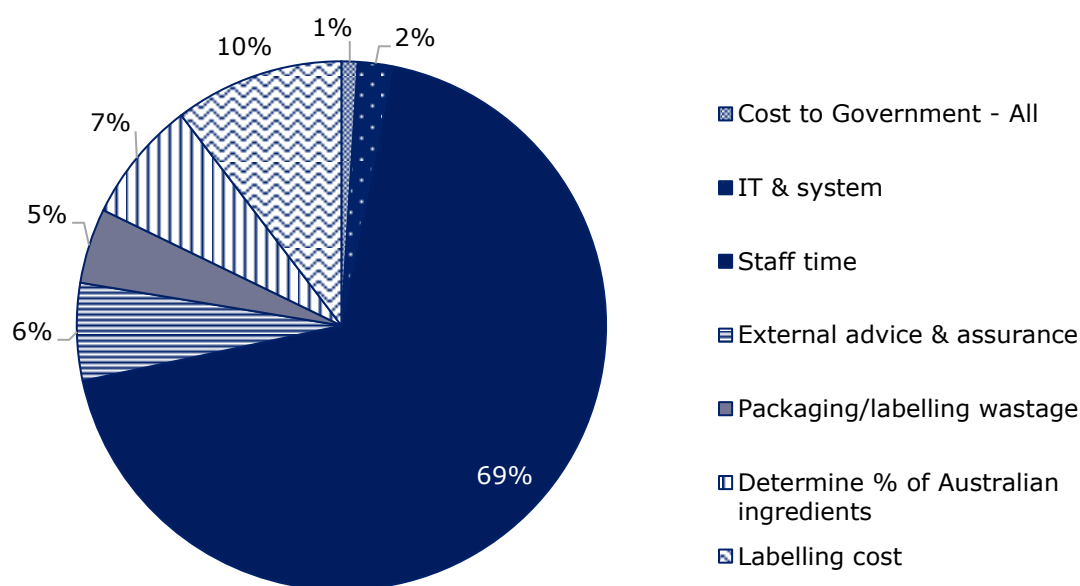
The majority of the realised costs were industry-reported compliance costs rather than Australian Government-related implementation, monitoring and enforcement costs. The cost to the Australian Government (\$16.9 million) to implement the CoOL Scheme is small compared to the total cost to industry (\$1.7 billion).

The once off costs are much greater than the ongoing costs of implementing the CoOL Scheme. Staff time is a significant cost of the CoOL Scheme, accounting for 69% of the total costs, of which more than 90% of staff costs were incurred in the transition period between FY2016 and FY2017 (\$554.7 million p.a.) to implement the CoOL regulations. This cost falls to \$6.6 million on an ongoing basis.

The next largest cost is attributed to product labelling, accounting for 10% of the costs. Unlike staff costs, labelling costs were relatively evenly incurred over the modelling period.

Another relatively large cost captured in the CBA is the cost to industry to determine the proportion of Australian ingredients, which accounts for 7% of the total costs. Relative to these three costs, most other realised costs were negligible. The breakdown of realised costs by cost type is shown in Table 3.1.

Chart 3.1: Proportion (%) of realised costs by cost type



Source: Deloitte Access Economics analysis.

A comparison of the realised costs relative to the expected costs of the CoOL Scheme is provided in Section 3.3.

3.2.3 Consumer WTP

Consumer benefits dominate the calculations, which are consistent with the objective of the CoOL Scheme. The largest consumer benefit is from the time savings because of the introduction of visual elements on the label (70%). The uplift in consumer WTP (utility) accounted for just less than the remaining 30% of benefits.

Consumer WTP is a benefit that attempts to capture the utility (or the level of happiness or satisfaction that people receive) from obtaining a specific level of CoOL information. As part of this evaluation, Deloitte conducted a WTP study within our consumer survey. The change in utility reflects an increase in the proportion of people that understand CoOL between the Base Case and the Status Quo, and are therefore able to realise their utility (as measured by WTP). The results indicate that 58% of respondents were willing to pay some premium on their weekly grocery spend to have the current level of CoOL information. This generated an estimated benefit of \$64.0 million p.a. or \$1.66 billion over the modelling period.

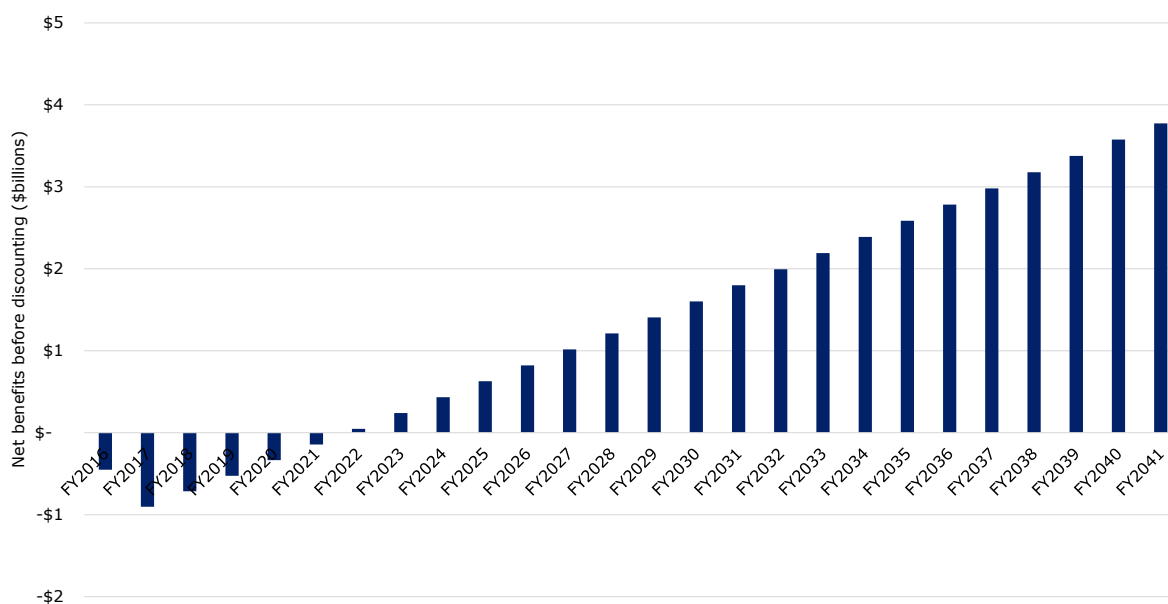
3.2.4 Cost effectiveness of the CoOL Scheme

NPV is the value of all future cash flows over the entire life of an investment discounted to the present. When the NPV is positive, the Status Quo is preferred relative to the Base Case. In this instance, the Status Quo has a NPV of \$3.9 billion over 26 years.

BCR indicates the relationship between the benefits and costs of the investment. When the BCR is positive, the Status Quo is preferred relative to the Base Case. The BCR of our retrospective analysis (3.326) indicates that on average, the Status Quo generates about \$3.30 in benefits for every dollar of costs incurred over the period of analysis.

Overall, since the NPV exceeds zero and that for every \$1 of costs incurred, the current CoOL Scheme generates \$3.30 in benefits, we believe that the current CoOL Scheme is cost effective. According to the CBA results, the CoOL scheme is expected to break even in FY2022 as shown in Chart 3.2.

Chart 3.2: Break-even of current CoOL Scheme



Source: Deloitte Access Economics analysis.

3.3 Comparison to 2016 model

In 2016, Arup undertook economic modelling on the costs and benefits of the Base Case, relative to the Status Quo. The modelling was undertaken to inform the implementation of the CoOL Scheme.

In 2016, Arup estimated the current CoOL Scheme would cost \$597.5 million (in present value terms) between FY2016 and FY2041, whilst Deloitte’s CBA modelling suggests the CoOL Scheme cost \$1.7 billion. Table 3.3 outlines key differences in the approach and assumptions used here versus those in the Arup model, which explain this difference.

Table 3.3: Comparison between Arup's 2016 model and Deloitte's 2021 model

Element	Arup	Deloitte	Rationale for change
Methodology	Measured the present value of costs and had a break-even type discussion to justify preferred option.	Undertook a CBA that included consumer benefits and estimated the NPV of the CoOL scheme.	Deloitte was engaged by the Department to undertake a CBA.
Timeframe	Arup adopted a 30-year modelling period spanning from FY2016 to FY2046.	Deloitte used a shorter timeframe spanning FY2016 to FY2041.	It creates more certainty as people are less accurately able to predict things far into the future.
Source for the number of businesses	Arup relied on three sources for the number of businesses. Omitted egg and poultry businesses.	Deloitte only relied on ABS data and included egg and poultry businesses.	ABS data was the most detailed in its industry categorisation.
Number of businesses over time	Arup assumed the number of businesses subject to CoOL remained constant over time.	Deloitte used historical ABS data to estimate a constant annual growth rate (CAGR) by which the number of businesses change over time	It is more realistic to model movements in the number of businesses, especially given the long modelling timeframe.
Ongoing costs	Arup assumed the only costs that were ongoing beyond 2017 were labelling costs to mixed origin priority goods; ACCC training costs, which extended to 2018 and ACCC monitoring and enforcement costs, which extended to 2020.	Deloitte estimated ongoing costs to industry in all industry cost categories, relative to the Base Case.	Ongoing costs to industry were reported in the Deloitte business survey and these costs were higher, relative to those reported under the Base Case. As such, Deloitte modelled positive ongoing costs to industry.
Consumer time savings	Arup discussed the possibility of an 11-second time saving per one-hour	Deloitte quantified consumer time savings as a benefit in the CBA using a combination of literature and consumer survey results.	The introduction of visual elements in the Status Quo was a significant driver of costs and benefits of the Status Quo.

Element	Arup	Deloitte	Rationale for change
	shop as being sufficient for the Status Quo to break even.		
Consumer WTP for CoOL	Consumer utility was not monetised.	Deloitte quantified consumer utility as a key benefit in the CBA using a combination of literature and consumer survey results.	The CoOL Scheme is in place to provide consumers with the information they need to make informed decisions. Utility is one of the ways to quantify the extent to which consumers are satisfied with the information provided.
Data inputs	Arup used its 2016 survey, data requests and consultations to inform its assumptions underpinning costs and benefits.	Deloitte used its 2020 consumer survey, business survey, data requests, consumer focus groups, shopper interviews and consultations to inform its assumptions underpinning costs and benefits.	Using updated data collected after the CoOL scheme had been in place for a few years has the benefit of hindsight, especially when estimating the cost of implementation, which are significant costs in the model.

Source: Deloitte Access Economics analysis.

4 Prospective analysis

This chapter presents the result of the prospective analysis.

It outlines key costs and benefits considered in the analysis (see Section 4.1), unpacks the overarching results of the CBA (see Section 4.2) and details the results of separate options in Section 4.3 to Section 4.8.

4.1 Key costs and benefits

This section considers the costs and benefits to industry, government and consumers for the prospective component of the CBA. The costs and benefits for each group and each option are considered, and a description of each cost and benefit is shown in Table 4.1.

Table 4.1: Costs and benefits monetised in prospective analysis

Option	Stakeholder	Description	
Costs			
Education campaign	Option 1	Government	Cost associated with the information and education campaign
Implementation, monitoring and enforcement	Options 1-6	Consumer	Cost associated with monitoring and enforcement of the revised CoOL reforms
Increase consumer search time	Option 2	Consumer	Cost (negative benefit) associated with increased search time to find country of origin information online
Change in WTP relative to Status Quo	Option 2	Industry	Cost associated with the willingness of consumers to pay for certain country of origin information by searching online
Expand to online platforms	Option 3	Industry	Costs associated with expanding CoOL reforms for food products sold on online shopping platforms
Costs to non-priority food sector	Option 4	Industry	Costs associated with non-priority food sector complying with the CoOL regulations
Provide more country of origin information	Option 5	Industry	Costs associated with including more information on labels about ingredients from outside Australia
Expand to foodservice	Option 6		Costs associated with expanding CoOL requirements to all businesses in the foodservice sector
Benefits			

Option	Stakeholder	Description
WTP for CoOL information	Options 1, 3-6	Consumers Benefits associated with the willingness of consumers to pay for certain country of origin information
Avoided product labelling (\$)	Option 2	Industry Benefits associated with avoided labelling costs under revised CoOL reform

Source: Deloitte Access Economics.

4.2 Overarching results

The results of the prospective analysis are presented in Table 4.2. The table presents the costs and benefits for each of the prospective options, relative to the Status Quo. This means that any costs and benefits captured here are incremental to those already captured under the current CoOL Scheme. Presenting the CBA results relative to the Status Quo enables a comparison across the prospective options using the Status Quo as a common reference point.

The costs captured in the analysis include the costs of compliance incurred by industry and the cost of implementing, monitoring and enforcing options incurred by government. The costs of options are dominated by industry compliance costs, and these costs vary depending on the extent of the regulatory changes proposed by each option. Overall, the education option is the cheapest option followed by the option to remove the non-priority exemption. The most expensive option is the option in the analysis of expanding CoOL to the foodservice sector.

The benefits captured in the analysis generally comprise an upward adjustment in consumer WTP, relative to the Status Quo. This upward adjustment reflects the higher level of utility (or happiness or satisfaction) that consumers receive from obtaining more CoOL information, relative to the Status Quo. In each instance, an upward adjustment to WTP is only captured for the segment of consumers who indicated that they wanted this additional information to ensure fair attribution of the proposed option and the benefits derived from the option.

The only exception to this is the reduced regulatory burden option where existing CoOL is removed from the physical labels of some products and is instead placed online. In this option, the benefits are the avoided labelling costs accrued by industry. From a consumer perspective, however, this option results in CoOL information being less accessible at the point of purchase – increasing the search time faced by consumers who still wish to access the information. There is also a decrease in the pool of consumers who *do* access this information as some may simply choose not to seek the information online if it is not immediately available. As such, there is a downward adjustment in consumer WTP for CoOL information in this option and there is also a cost of higher consumer search times, relative to the Status Quo.

Overall, any option with a positive NPV and a positive BCR is deemed preferred relative to the Status Quo in terms of the modelling. Our results therefore indicate that the education option and the option to remove the non-priority exemption are preferred relative to the Status Quo (i.e. the current CoOL Scheme). Furthermore, because the Status Quo is the reference point for all options, the option with the highest positive NPV and a positive BCR is the option that will generate the highest level of economic benefits to the Australian community and, therefore, the most preferred option. In this instance, the education option, which has an NPV of \$129.7 million and a BCR of 12.1 is the most preferred option. This means that for every \$1 spent on the consumer education and awareness campaign, it is expected to generate \$12.1 in benefits for Australian consumers.

The remainder of this chapter presents a detailed analysis of the CBA results for each option. Detailed assumptions underpinning the modelling can be found in Appendix A.

Table 4.2: CBA calculation for the six CBA options

	Option 1 – Education	Option 2 – Reduced regulatory burden	Option 3 – Online shopping platforms	Option 4 – Remove non- priority exemption	Option 5 – Increased information	Option 6 – Expand to foodservice
Costs to Government						
Education campaign (\$)	11,653,582					
Change in training (ACCC), monitoring and enforcement (\$)		285,985	500,606	1,382,525	2,503,029	13,516,357
Costs to industry						
Cost to industry – All (\$)			402,654,820	29,889,791	92,266,919	3,496,064,909
Cost to consumer – increased search time (\$)		200,967,777				
Change in consumer WTP relative to Status Quo (\$)		147,730,238				
Total costs (\$)	11,653,582	348,984,001	403,155,426	31,272,316	94,769,948	3,509,581,266
Benefits						
Avoided product labelling (\$)		8,734,275				
Change in WTP relative to Status Quo (\$)	141,391,307		29,424,506	291,498,363	98,486,926	1,256,225,530
Total Benefits (\$)	141,391,307	8,734,275	29,424,506	291,498,363	98,486,926	1,256,225,530
Net NPV (\$)	129,737,726	-340,249,726	-373,730,921	260,226,047	3,716,877	2,253,355,736
BCR	12.133	0.025	0.073	9.321	1.039	0.358

Source: Deloitte Access Economics analysis. Note: figures may not sum due to rounding.

4.3 Education

Table 4.3 presents the CBA results for the education option, relative to the Status Quo. Detailed data and assumptions underpinning these results are in Section A.3.

Table 4.3: Cost and benefit of CBA option 1 – education

Option 1 - Education	NPV (\$)
Costs to Government	
Education campaign	\$11,653,582
Change in monitoring and enforcement	0
Costs to industry	
Cost to industry - All	0
Total costs	\$11,653,582
Benefits	
Change in WTP relative to Status Quo	141,391,307
Total Benefits	141,391,307
Net NPV	129,737,726
BCR	12.133

Source: Deloitte Access Economics analysis. Note: figures may not sum due to rounding.

Under the education option, a small cost of around \$11.7 million is incurred between FY2022 and FY2023 to run an education campaign, which increases consumer awareness and understanding of the existing CoOL Scheme.

The benefits of the education campaign are measured as an increase in consumer utility because more consumers understand CoOL and, by implication, derive utility from this information. It is estimated that the campaign generates around \$141.4 million in benefits between FY2022 and FY2041, which equates to around \$13.3 million p.a.

Overall, the education option is preferred to the Status Quo (or current CoOL Scheme) as it generates around \$129.7 million more in net benefits to the Australian community.

4.3.1 Interpretation and considerations

The education option is centred on improving the utilisation of the CoOL Scheme by increasing consumer awareness and understanding. The modelling does not specify the nature of the campaign, instead, an estimated cost to Government is included. The cost has been calculated to roughly approximate the cost of a multi-year public media and social media campaign.

To implement this option, the Department would look to design a marketing strategy, which takes into account the reach and timing of content, in addition to the design of the actual campaign. The overarching objective of the campaign would be to increase consumer awareness and understanding of the regulation within the moment of product decision making.

Naturally, a more extensive campaign would be associated with higher costs. However, the modelling indicates that the payoff for investment in such activity is strong and as such, an increase in the value of investment in education relative to what has been included in the current model could be readily accommodated and still offer net positive gains.

4.4 Reduced regulatory burden

Table 4.4 presents the CBA results for the reduced regulatory burden option, relative to the Status Quo. Detailed data and assumptions underpinning these results are in Section A.3.

Table 4.4: Cost and benefit of CBA option 2 – reduced regulatory burden

Option 2 – Reduced regulatory burden	NPV (\$)
Costs to Government	
Change in monitoring and enforcement	285,985
Costs to industry	
Cost to consumer – increased search time (\$)	200,967,777
Change in consumer WTP relative to Status Quo (\$)	147,730,238
Total costs	348,984,001
Benefits	
Avoided product labelling (\$)	8,734,275
Total Benefits	8,734,275
Net NPV	-340,249,726
BCR	0.025

Source: Deloitte Access Economics analysis. Note: figures may not sum due to rounding.

In the reduced regulatory burden option, businesses that are already subject to CoOL regulations, have the option to move their CoOL information online, and instead use the physical label to indicate to consumers where they can access CoOL information. The result is that some businesses continue to display their CoOL information on the labels as per the current requirements (leaving costs and benefits unchanged), while other businesses, choose to move this information online to avoid frequent product labelling costs.

In this option, it is assumed that 8% of businesses currently subject to CoOL regulations opt to provide this information online. This figure has been based on the proportion of business survey respondents that indicated that CoOL requirements have not at all been sufficiently flexible for food and beverage producers to manage variations in the supply of ingredients.

For those businesses which opt to place CoOL information online, it is assumed that they avoid ongoing labelling costs from FY2022 onwards. The cost of avoided labelling is estimated at \$824,454 p.a. (undiscounted), generating \$8.7 million in benefits for industry between FY2022 and FY2041.

Because some CoOL information is moved online it becomes less accessible to consumers and the consumer search time for this information rises. To account for this, it is assumed that consumers that always read CoOL information now spend 30 seconds longer to find this information, relative to the Status Quo. This implies an increased consumer search cost of around \$201 million between FY2022 and FY2041, or \$18.9 million p.a. (undiscounted), relative to the Status Quo.

Similarly, consumer WTP is assumed to decline significantly relative to the Status Quo as some CoOL information becomes less accessible to consumers. This means that consumer utility declines by \$13.9 million p.a. (undiscounted) between FY2022 and FY2041, resulting in an overall \$147.7 million reduction in utility, relative to the Status Quo.

The analysis suggests that the avoided product labelling benefits are outweighed by the reduction in consumer utility and increased consumer search time, generating a negative NPV of \$340.2 million between FY2022 and FY2041, relative to the Status Quo. As such, the Status Quo is preferred relative to the reduced regulatory option.

4.4.1 Interpretation and considerations

In the modelling, the cost saving and convenience for businesses that choose to move their information online and off physical packaging is not aligned with the concurrent loss of consumer benefit – increased time and lowered utility.

The modelling has been developed on the assumption that shopping patterns – for example, the choice to shop online versus in person – remain the same. There are no assumptions made about the future digitisation of labelling – for example, through the increased use of Quick Response (QR) codes. The progression of trends, such as these would have the potential to reduce the negative impact on consumers that has been modelled under this option. Future revisions would need to consider the state of online shopping and modalities for provision of labelling information. Increased digitisation in either field could give cause to reconsider this option.

4.5 Online shopping platforms

Table 4.5 presents the CBA results for the online shopping platforms option, relative to the Status Quo. Detailed data and assumptions underpinning these results are in Section A.3.

Table 4.5: Cost and benefit of CBA option 3 – online shopping platforms

Option 3 – Online shopping platforms	NPV (\$)
Costs to Government	
Change in monitoring and enforcement	500,606
Costs to industry	
Cost to industry - All	402,654,820
Total costs	403,155,426
Benefits	
Change in WTP relative to Status Quo	29,424,506
Total Benefits	29,424,506
Net NPV	-373,730,921

Option 3 – Online shopping platforms	NPV (\$)
BCR	0.073

Source: Deloitte Access Economics analysis. Note: figures may not sum due to rounding.

In this option, all businesses that use an online shopping platform to sell products currently subject to CoOL regulations are obligated to provide the same level of CoOL information on their online platform as they do in store. Businesses currently subject to CoOL that do not sell their goods online will have no additional obligations, leaving costs and benefits unchanged for this cohort of businesses.

Deloitte's business survey suggests that 11% of business respondents are subject to CoOL, sell goods online and do not currently provide CoOL information for these products online. This cohort of businesses would therefore incur additional compliance costs under this option. A further 16% of business respondents are subject to CoOL, sell goods online and already provide CoOL information for these products online. As such, it is assumed there are no additional compliance costs for these businesses.

The survey estimated that on average, it would cost a business \$12,435 (over two years) to initially implement the changes and \$12,456 p.a. to continue to provide the information online. The cost to industry is therefore estimated at \$402.6 million between FY2022 and FY2041.

The benefits of this option include the provision of more information to the cohort of online shoppers that are currently dissatisfied with the existing amount of CoOL information they receive when they shop online. The additional WTP for CoOL information within this cohort is estimated at \$2.8 million p.a. (undiscounted) or \$29.4 million between FY2022 and FY2041, relative to the Status Quo.

The uplift in consumer WTP is, however, insufficient to offset the cost incurred by businesses to provide this information. Overall, the option results in \$373.7 million less in net benefits to the Australian community, relative to the Status Quo. Hence, the Status Quo is preferred to the online shopping option.

4.5.1 Interpretation and considerations

This modelling option considers a scenario where the Australian Government mandates the translation of information onto an online platform. Regulation is not the only tool available to encourage greater adoption of online reporting for stores that have an online and physical presence. Regulation is associated with the costs of enforcement and monitoring, as well as costs to businesses for which the regulation may not be entirely suitable.

Large retailers that currently command a high proportion of the online shopping market have already voluntarily moved to provide CoOL information on their online platforms. It is possible that for a smaller investment, the Department could capitalise on the private trend adopted by these larger retailers and encourage others to follow suit. Equally, if considered alongside Option 1 (education), increasing consumer awareness and understanding of CoOL may serve to increase demand for this information in such a way that consumers demand their retailers to provide information online, as well as in stores.

A lower regulatory burden option therefore may exist for achieving similar benefits, which is best investigated ahead of regulatory change.

4.6 Remove non-priority exemption

Table 4.6 presents the CBA results for the option to remove the non-priority exemption, relative to the Status Quo. Detailed data and assumptions underpinning these results are in Section A.3.

Table 4.6: Cost and benefit of CBA option 4 – remove non-priority exemption

Option 4 – Remove non-priority exemption	NPV (\$)
Costs to Government	
Change in monitoring and enforcement	1,382,525
Costs to industry	
Cost to industry - All	29,889,791
Total costs	31,272,316
Benefits	
Change in WTP relative to Status Quo	291,498,363
Total Benefits	291,498,363
Net NPV	260,226,047
BCR	9.321

Source: Deloitte Access Economics analysis. Note: figures may not sum due to rounding.

At present, the CoOL regulations have different labelling requirements for priority versus non-priority foods. Priority foods that are grown, produced or made in Australia are required to include the AMAG logo. The AMAG logo comprises a bar chart indicating the proportion of Australian ingredients and a text statement identifying whether the food was grown, produced or made in Australia. Non-priority foods that are grown, produced or made in Australia are only required to produce a text statement indicating that the food was grown/produced or made in Australia. This option considers what happens when all food and beverage products currently subject to CoOL are classified as priority goods and subject to a uniform set of labelling requirements.

From a cost perspective, only those businesses that sell non-priority goods face higher compliance costs, as they are now subject to more stringent labelling requirements. It is assumed that all businesses that sell non-priority food items face higher once-off and ongoing labelling costs, because there is more information that non-priority food suppliers need to disclose on their labels. The once off costs are estimated at around \$251.53 per SKU, which is the same initial labelling cost reported by businesses supplying priority goods under the Status Quo. The incremental ongoing label costs are estimated at \$50 per SKU, being the difference between the ongoing labelling costs reported by priority food suppliers versus non-priority food suppliers. Together, this option creates an additional \$18.16 million (undiscounted) in labelling costs between FY2022 and FY2041, relative to the Status Quo.

Another requirement for non-priority businesses under this option is to determine the proportion of Australian ingredients. The Deloitte business survey suggests that, on average, the initial costs per business to determine the proportion of Australian ingredients was \$463.91 for small businesses, \$7,555.98 for medium businesses and \$139,042.28 for large businesses, over a two-year

transition period. Similarly, the ongoing costs were reported as -\$30²², \$2,727 and \$13,516 p.a. for small, medium and large businesses, respectively. This means the cost to determine the proportion of Australian ingredients is \$28.8 million (undiscounted) more between FY2022 and FY2041, relative to the Status Quo.

The costs to industry, therefore, amount to \$46.9 million (undiscounted) or \$29.9 million in present value terms, relative to the Status Quo.

The benefits of this option include the provision of more information to the cohort of shoppers that demand more information on non-priority goods. The additional WTP for CoOL information within this cohort is estimated at \$27.5 million p.a. (undiscounted) or \$291.5 million between FY2022 and FY2041, relative to the Status Quo.

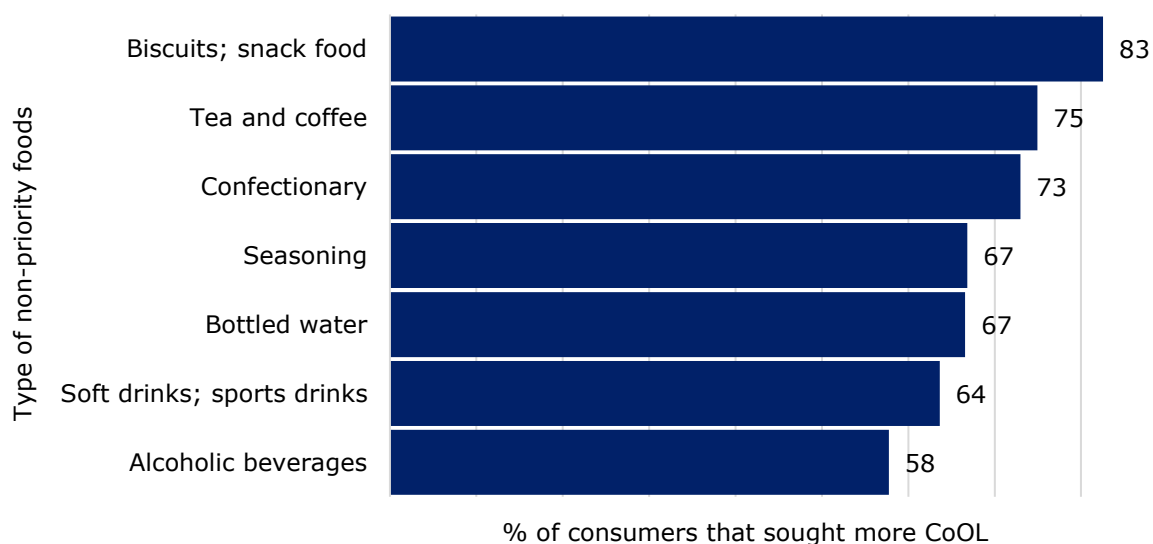
Overall, this option generates \$260.2 million more in net benefits to the Australian community, relative to the Status Quo, and is hence preferred to the Status Quo.

4.6.1 Interpretation and considerations

The results of this modelling are driven by consumer demand for CoOL information across priority and non-priority products. The proportion of consumers seeking more CoOL information differs by type of non-priority food (see Chart 4.1).

One non-priority product category, which was notably different was alcohol – both from a consumer demand and business perspective. The consumer survey indicated that of the 40% of respondents that indicated they wanted more CoOL information for non-priority food, 58% suggested they wanted more information on alcohol. Alcohol was the non-priority food category for which the least consumers sought more information (see Chart 4.1). Businesses noted that alcohol is already subject to substantial labelling regulations and that the industry largely provided some country of origin information on labelling as part of its own industry standards.

Chart 4.1: Proportion of consumers that sought more CoOL information, by type of non-priority food



Source: Deloitte Access Economics analysis, using consumer survey data.

It is, therefore, recommended that should this option be pursued, further consideration be given to the extension of the regulation to all non-priority categories.

²² Note: On average, small businesses reported higher ongoing costs to report the proportion of Australian ingredients under the Base Case (i.e. under the scheme that existing prior to 2016), relative to the costs incurred under the current CoOL regulations. Hence this value is a savings for small businesses, but a cost for medium and large businesses.

4.7 Increased information

Table 4.7 presents the CBA results for the option to increase information on non-Australian ingredients, relative to the Status Quo. Detailed data and assumptions underpinning these results are in Section A.3.

Table 4.7: Cost and benefit of CBA option 5 – increased information

Option 5 – Increased information	NPV (\$)
Costs to Government	
Change in monitoring and enforcement	2,503,029
Costs to industry	
Cost to industry - All	92,266,919
Total costs	94,769,948
Benefits	
Change in WTP relative to Status Quo	98,486,826
Total Benefits	98,486,826
Net NPV	3,716,877
BCR	1.039

Source: Deloitte Access Economics analysis. Note: figures may not sum due to rounding.

In this option, all businesses that currently supply priority goods will need to outline the foreign country responsible for the highest portion of non-Australian ingredients in their product(s). The new information would be disclosed in text on the label, in addition to the bar chart disclosing the proportion of Australian ingredients. It is assumed that 95% of businesses currently subject to CoOL would incur additional compliance costs because their products would not contain 100% Australian ingredients.

In this option, businesses face higher product labelling costs both on a once-off basis to redesign labels and become compliant, and on an ongoing basis to remain compliant. The once-off cost to re-design and adjust labels is estimated at around \$251.53 per SKU, which is the same re-labelling cost reported by these businesses at the onset of the current CoOL Scheme. On an ongoing basis, extra labelling costs would only be incurred if the country responsible for the highest portion of non-Australian ingredients changes. As such, it is assumed that there would be a 50% increase in the ongoing labelling cost per priority SKU, relative to the Status Quo. Broadly, this implies that we expect one additional label change every two years. Labelling costs are, therefore, estimated to cost \$62.7 million (undiscounted) more between FY2022 and FY2041, relative to the Status Quo.

Businesses will also need to increase the amount spent on staff and systems to track the origin of foreign ingredients, because the Status Quo only requires them to track and report the proportion of Australian ingredients. Realistically, businesses are likely to update their existing systems so they can track both Australian and foreign ingredients from a single system, to realise some synergies and cost savings. It is our view that the cost to upgrade these systems would be small relative to the cost incurred under the Status Quo to design and implement them. As such, we have assumed that the cost to upgrade systems to track foreign ingredients is about 60% of the

costs initially incurred under the Status Quo to track Australian ingredients. The cost amounts to \$75.2 million (undiscounted) between FY2022 and FY2041, relative to the Status Quo.

The costs to industry, therefore, total to \$137.9 million (undiscounted) or \$94.8 million in present value terms, relative to the Status Quo.

The benefit of this option is the additional information on the origin of ingredients that becomes available to Australian consumers. It is measured through an uplift in the WTP by the cohort of Australian consumers that want this extra information. Additional WTP for CoOL information is estimated at \$9.3 million p.a. (undiscounted) or \$98.5 million between FY2022 and FY2041, relative to the Status Quo.

Overall, this option generates \$3.7 million in net benefits to the Australian community, relative to the Status Quo. While there is a net benefit, the BCR of just over one indicates the value of benefits and costs, of which both are high yet approximately similar. Hence, while the option is preferred relative to the Status Quo, the cost to businesses is not offset by consumer benefit.

4.7.1 Interpretation and considerations

The modelling in this option speaks to a story where most businesses face increased costs and this is not offset by the contemporaneous increase in consumer benefit from individuals who value this extra information.

There are a few additional points for consideration. The first is that this option considered the additional burden would be placed on 95% of businesses. The Department may reduce this proportion by decreasing the number of businesses subject to additional labelling requirements. This may be achieved - for example - by picking a cut-off point, such as '50%' ingredients outside Australia. This exemption 'level' could be defined by asking consumers the point at which they seek out more information.

On the cost side, the Department may consider options to limit additional information provision to online forums only. That is, consumers could be directed to a website if they are interested in finding out further information about a product.

4.8 Expand to foodservice

Table 4.8 presents the CBA results for expanding CoOL to the foodservice sector, relative to the Status Quo. Detailed data and assumptions underpinning these results are in Section A.3.

Table 4.8: Cost and benefit of CBA option 6 – expand to foodservice

Option 6 – Expand to foodservice	NPV (\$)
Costs to Government	
Change in monitoring and enforcement	13,516,357
Costs to industry	
Cost to industry - All	3,496,064,909
Total costs	3,509,581,266
Benefits	
Change in WTP relative to Status Quo	1,256,225,530
Total Benefits	1,256,225,530

Option 6 – Expand to foodservice	NPV (\$)
Net NPV	-2,253,355,736
BCR	0.358

Source: Deloitte Access Economics analysis. Note: figures may not sum due to rounding.

The existing CoOL regulations have an exemption for foodservice businesses (amongst others). In this option we explore the costs and benefits of expanding mandatory CoOL to Australia's entire foodservice sector.

The costs of this option are largely compliance costs incurred by businesses in the foodservice sector that are not already supplying this information on a voluntary basis. It is understood that some businesses like McDonalds and Dominos already supply this information to their customers, hence the cost of compliance to these businesses would be negligible if not zero. On the other hand, foodservice businesses that do not supply this information would incur once-off and ongoing costs to collect and communicate this information to their customers. It is not known exactly how many foodservice businesses in Australia currently provide this information, but we do know that in addition to those businesses listed above, foodservice businesses in the Northern Territory have a legal obligation to provide CoOL for any seafood dishes they sell. It is conservatively assumed that only 1% of Australian foodservice businesses already provide this information and, therefore, incur little to no cost.

For the remaining 99% of business, Deloitte used its survey to estimate the once off and ongoing cost to mandate CoOL in the foodservice sector. On average, small businesses reported initial costs of \$6,609.71 per business, medium businesses reported costs of \$1,090.00 per business whilst large businesses estimated it at \$929,583.33 per business. Similarly, the average ongoing costs were estimated at \$2,242.59, \$655.60 and \$213,362.50 for small, medium and large businesses, respectively. This means that the costs incurred by industry amount to \$3.5 billion between FY2022 and FY2041, relative to the Status Quo. The cost is largely driven by small businesses that make up around 90% of Australia's foodservice sector.

On the benefit side, consumers would have access to more information about the country of origin of any food or beverages they purchase from the foodservice sector. This benefit is measured through an uplift in the WTP by the cohort of Australian consumers that want this CoOL information in foodservice settings. Deloitte's consumer survey suggests the WTP for this information is \$118.6 million p.a. (undiscounted) or \$1.3 billion between FY2022 and FY2041, relative to the Status Quo.

The additional utility realised by Australian consumers is, however, insufficient to offset the cost of compliance for the foodservice sector. Hence this option generates \$2.25 billion less in net benefits to the Australian community, relative to the Status Quo. As such, the Status Quo is preferred relative to this option.

4.8.1 Interpretation and considerations

The sheer size of the foodservice industry alone – and the number of small businesses in the industry – drives the cost of this option far up above the consumer benefits.

Versions of this option, which may be more palatable, could section off sub-sectors within this industry – such as 'fast food' providers – and isolate implementation here. It is not clear, however, that this would meet the demands of consumers who had WTP for this information.

Notably, there were some strong industry advocates for this option, where specific ingredients were called out for consideration in a CoOL Scheme. This is discussed further in the evaluation report and in section 4.8.2 below with the sub-option for seafood products.

4.8.2 Sub-option: Expand for seafood products for foodservices businesses

Additional analysis was undertaken to consider a sub-option for foodservices; the inclusion of CoOL for seafood products served in foodservices. This was requested due to the interest from some industry representatives for the inclusion of CoOL for seafood in foodservices, including to enable the increase in Australian seafood products by foodservice businesses.

To undertake this additional analysis, Deloitte considered a range of sub-options, including undertaking the analysis for seafood only, and for seafood and meat products. The rationale for considering both seafood and meat was two-fold. Firstly, including meat products in the analysis enables an estimate of the impact of CoOL for similar ingredients to seafood. Further, there was also interest from consumers expressed during consultation regarding the inclusion of CoOL for meat products.

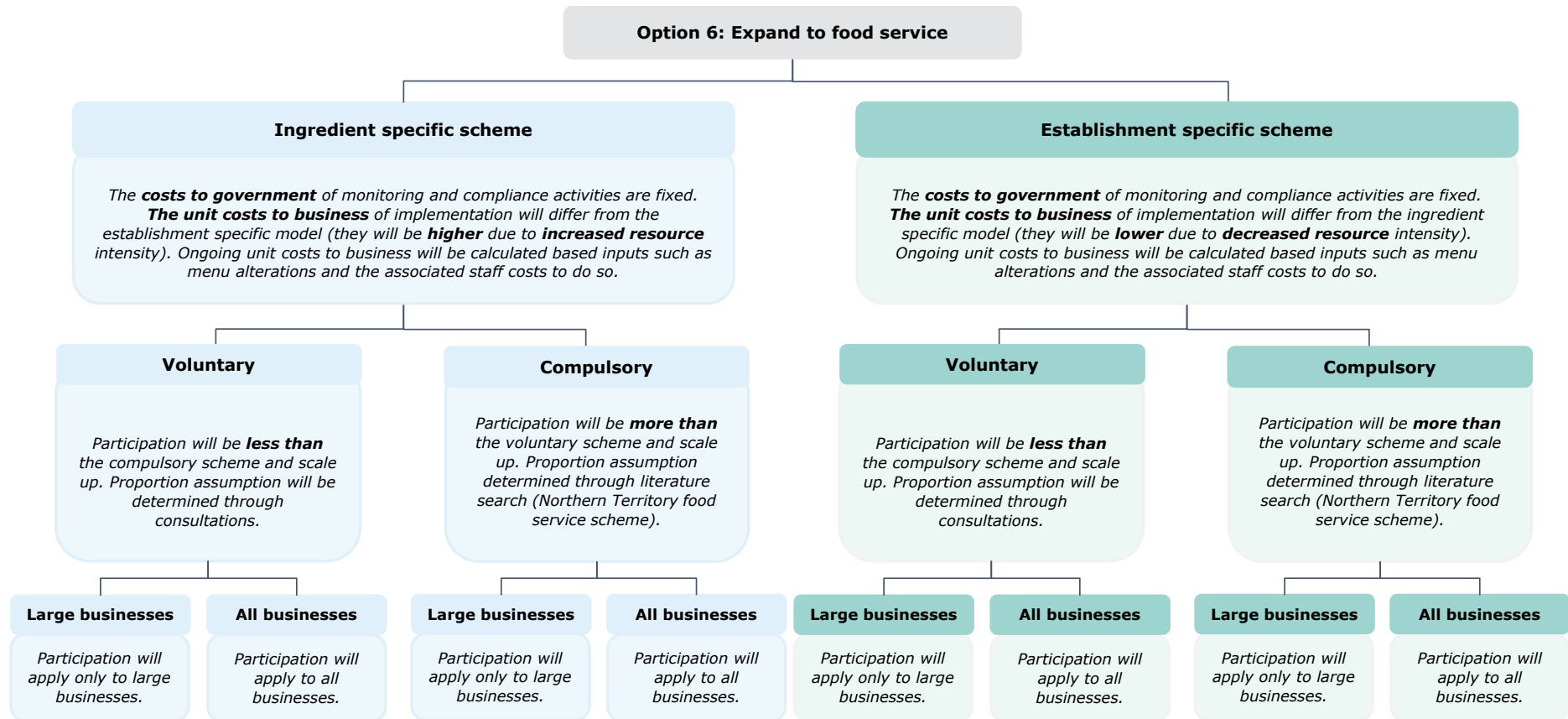
Two broad options were considered.

1. **Ingredient specific (option 6a)**, where foodservice businesses would report country of origin information for all menu items that contain seafood.
2. **Establishment specific (option 6b)**, where foodservice businesses would report country of origin information regarding the use of Australian seafood ingredients by that establishment in one overarching and binary statement reflecting whether all seafood is sourced locally.

For each of these, a voluntary (Status Quo) or mandatory option was considered. Foodservices businesses are able to provide CoOL information for seafood products if they choose to. This is reflected in the Status Quo option. Further, the analysis distinguished variations in costs between the type of business in terms of size (small/medium and large) and nature (fast food and café/restaurant), in addition to seafood and meat products.

The sub-options that were included within the CBA for the inclusion of seafood and seafood and meat products in foodservice businesses is shown in Figure 4.1.

Figure 4.1: Seafood and seafood and meat CBA options



Source: Deloitte Access Economics.

This analysis was conducted as an additional component after completion of the other prospective CBA options. As such, several limitations exist in the CBA modelling that should be taken into account when analysing the results.

- Some of the inputs used in the model would benefit from a larger sample size, to reduce bias and ensure the effort and costs across different foodservice business are represented in the modelling.
- The modelling does not consider the highly heterogenous nature of the foodservice sector. For example, within small/medium sized businesses, this includes high-end restaurants which may print a menu daily to a standalone fish and chip takeaway shop which may change their menu items every few years. Our modelling assumes the costs and efforts attributed to complying and implementing CoOL across these two business types are the same, however, this may not be the case in reality. The modelling does not capture the granularity and diversity of foodservice businesses which may limit the interpretation of the CBA findings.
- Further, the analysis has considered in-store impacts only, and excluded any time spent updating menus online.
- The WTP calculations used in the CBA are derived from the consumer survey tool, which asked consumers their willingness to pay for additional information about the country of origin of any food or beverage they purchase from the foodservice sector. However, this sub-option is specific only to seafood products, and it is possible that the WTP for country of origin information on these products would be higher as consumers in the focus group discussions indicated they were interested to know where their seafood was sourced from.

Table 4.9 and Table 4.10 presents the CBA results for expanding CoOL to the foodservice sector for seafood only, relative to the Status Quo, for the ingredient and establishment specific scheme respectively. Detailed data and assumptions underpinning these results are in Section A.3.

Table 4.9: Cost and benefit of CBA option 6a – expand to seafood menu items in foodservices (ingredient specific)

Option 6a – Expand to seafood menu items in foodservice – ingredient specific scheme	Mandatory, seafood only, all businesses NPV (\$)	Mandatory, seafood only, large businesses NPV (\$)	Voluntary, seafood only, all businesses NPV (\$)	Voluntary, seafood only, large businesses NPV (\$)
Costs to Government				
Change in monitoring and enforcement	13,516,357	13,516,357	0	0
Costs to industry				
Cost to industry - All	839,771,851	106,212,337	8,397,719	2,097,967
Total costs	853,288,208	119,728,694	8,397,719	2,097,967
Benefits				
Change in WTP relative to Status Quo	690,924,042	2,589,845	6,909,240	25,898
Total Benefits	690,924,042	2,589,845	6,909,240	25,898
Net NPV	-162,364,167	-117,138,850	-1,488,478	-2,072,068
BCR	0.810	0.022	0.823	0.012

Source: Deloitte Access Economics analysis. Note: figures may not sum due to rounding.

Table 4.10: Cost and benefit of CBA option 6b – expand to seafood menu items in foodservices (establishment specific)

Option 6b – Expand to seafood menu items in foodservice – establishment specific scheme	Mandatory, seafood only, all businesses NPV (\$)	Mandatory, seafood only, large businesses NPV (\$)	Voluntary, seafood only, all businesses NPV (\$)	Voluntary, seafood only, large businesses NPV (\$)
Costs to Government				
Change in monitoring and enforcement	13,516,357	13,516,357	0	0
Costs to industry				
Cost to industry - All	707,501,055	209,795,411	16,348,155	2,097,954
Total costs	721,017,412	223,311,769	16,348,155	2,097,954
Benefits				
Change in WTP relative to Status Quo	690,924,042	2,589,845	6,909,240	25,898
Total Benefits	690,924,042	2,589,845	6,909,240	25,898
Net NPV	-30,093,371	-220,721,924	-9,438,914	-2,072,056
BCR	0.958	0.012	0.423	0.012

Source: Deloitte Access Economics analysis. Note: figures may not sum due to rounding.

Costs

Similarly to Option 6 where the entirety of the foodservices sector is considered, the costs of this sub-option are largely compliance costs incurred by businesses in the foodservice sector that are not already supplying this information on a voluntary basis. There are three types of foodservices that are most likely already providing this information to their customers and therefore likely to incur little to no cost. These are:

- Certain large fast-food outlets such as McDonalds and Dominos
- High-end restaurants, which may update their menus daily and often include information on not only the country of origin of their seafood and, but also the region from which they are sourced
- Foodservice businesses in the Northern Territory as they have a legal obligation to provide CoOL for any seafood dishes they sell.

It is conservatively assumed that only 1% of Australian foodservice businesses (those listed above) already provide this information and therefore incur little to no cost.

Foodservice businesses that do not supply this information would be required to incur once-off and ongoing costs to collect and communicate this information to consumers. The once-off costs were calculated using Deloitte's business survey for the application of CoOL to all foodservice businesses.

Ongoing costs were estimated from stakeholder consultations. Activities stakeholders reported would need to be undertaken to comply with CoOL on an ongoing basis include costs associated with ordering items, checking and validating products with suppliers and updating menus and signage. These costs are calculated based on inputs representing how frequently foodservices alter their menu, and the cost of resources to ensure CoOL compliance when such changes occur. For the options that include all foodservices, total industry costs are largely driven by small businesses that make up around 90% of Australia's foodservice sector.

Under a voluntary scheme, there would be no monitoring and compliance costs incurred by the government. Under a voluntary scheme for seafood products, foodservices have no obligation to supply CoOL information and there is thus no reason for government to monitor and ensure compliance. Under a mandatory scheme for seafood products, it is estimated the costs to government of monitoring and compliance would be the same for the option 6, where the scheme is applied to all foodservices. This cost is estimated to be \$13.5 million per annum.

Benefits

On the benefit side, consumers would have access to more information about the country of origin of menu items which contained seafood products they purchase from the foodservice sector. This benefit is measured through an uplift in the WTP by the cohort of Australian consumers that want this CoOL information in foodservice settings. Across these additional sub-options, the WTP benefit is scaled relative to its measure in Option 6 to reflect varying rates of business participation. For example, a voluntary option will entail a substantially lower number of foodservices displaying CoOL than the equivalent mandatory option. This means a proportionate amount of country of origin information being provided to consumers based on the proportion of participating businesses in each sub-option.

Results

All sub-options options examined present a BCR that is less than one. This is largely driven by high costs to foodservice businesses to comply with CoOL regulations. These costs are comprised of resources spent engaging with a supplier to ensure desired country of origin, auditing to ensure compliance and accuracy of displayed country of origin information and the process of altering a menu to reflect new or updated country of origin information.

Of the seafood only options, a mandatory establishment specific option applied to all businesses shows the highest BCR at 0.958. This result is driven by the substantial cost to businesses to provide country of origin information for seafood products (\$707.5 million). Although this option provides a considerable WTP benefit (\$690.9 million) to consumers, it does not offset the high cost incurred by government and industry.

Note that costs for the establishment specific scheme are also notably lower than the equivalent ingredient specific scheme. This is driven by the assumption that an establishment specific scheme imposes less regulatory burden.

Conversely, a voluntary ingredient specific option applying only to large businesses has the lowest BCR at 0.012. This result is driven by the lower participation rate by businesses that would voluntarily provide country of origin information and the small proportion of foodservices that are considered large businesses (0.37%). As such, the WTP benefit is scaled down dramatically to capture the very limited information available to consumers under this option. While industry-costs are also much lower under this option than others, the high once-off costs for even a single large-scale foodservices significantly outweigh the low benefits.

Further analysis was conducted analysing the impact on foodservice businesses if this option applied to seafood and meat products. The main variable change associated with this was the number of businesses that would be affected, increasing from 55% of businesses to 96.5% of businesses. Under these options, the BCR increased but continued to be less than one. Table 4.11 and Table 4.12 presents the CBA results for expanding CoOL to the foodservice sector for seafood and meat, relative to the Status Quo, for the ingredient and establishment specific scheme respectively. Detailed data and assumptions underpinning these results are in Section A.3.

Table 4.11: Cost and benefit of CBA results to expand to seafood and meat menu items in foodservices (ingredient specific)

Expand to seafood and meat menu items in foodservice – ingredient specific scheme	Mandatory, seafood and meat, all businesses NPV (\$)	Mandatory, seafood and meat, large businesses NPV (\$)	Voluntary, seafood and meat, all businesses NPV (\$)	Voluntary, seafood and meat, large businesses NPV (\$)
Costs to Government				
Change in monitoring and enforcement	13,516,357	13,516,357	0	0
Costs to industry				
Cost to industry - All	1,473,417,884	368,097,798	14,734,179	3,680,978
Total costs	1,473,417,884	381,614,156	14,734,179	3,680,978
Benefits				
Change in WTP relative to Status Quo	1,212,257,636	4,544,000	12,122,576	45,440
Total Benefits	1,212,257,636	4,544,000	12,122,576	45,440
Net NPV	-274,676,605	-377,070,156	-2,611,602	-3,635,538
BCR	0.815	0.012	0.823	0.012

Source: Deloitte Access Economics analysis. Note: figures may not sum due to rounding.

Table 4.12: Cost and benefit of CBA results to expand to seafood and meat menu items in foodservices (establishment specific)

Expand to seafood and meat menu items in foodservice – establishment specific scheme	Mandatory, seafood and meat, all businesses NPV (\$)	Mandatory, seafood and meat, large businesses NPV (\$)	Voluntary, seafood and meat y, all businesses NPV (\$)	Voluntary, seafood and meat, large businesses NPV (\$)
Costs to Government				
Change in monitoring and enforcement	13,516,357	13,516,357	0	0
Costs to industry				
Cost to industry - All	1,241,342,760	368,095,586	12,413,428	3,680,956
Total costs	1,254,859,117	381,611,943	12,413,428	3,680,956
Benefits				
Change in WTP relative to Status Quo	1,212,257,636	4,544,000	12,122,576	45,440
Total Benefits	1,212,257,636	4,544,000	12,122,576	45,440
Net NPV	-42,601,481	-377,067,943	-290,851	-3,635,516
BCR	0.966	0.012	0.977	0.012

Source: Deloitte Access Economics analysis. Note: figures may not sum due to rounding.

It should be noted that this modelling excludes changes in behaviour that may arise from applying CoOL to seafood products in the foodservices industry. Such a scheme would likely encourage some businesses to switch their suppliers for ease of compliance; for example, moving all their seafood products to Australian or imported products (rather than a combination). This has not been included as part of the modelling.

Interpretation and considerations

There are strong industry advocates for this option to encourage the uptake of Australian farmed fish products. Business groups however report concern regarding the time imposition and additional regulatory cost to businesses. The sheer size of the foodservice industry alone – and the number of small businesses in the industry – drives the cost of this option above the consumer benefits.

The distinction in costs was predominantly reported by the type rather than size of the business. High-end restaurants may change their menus daily, and are most likely to already be reporting the origin of their seafood. Cafés and non-high-end restaurants reportedly change their menus seasonally, but would continue to have weekly compliance costs to ensure their supply aligned with the reported CoOL label and monitor their compliance with the scheme. Takeaway businesses were reported to be unlikely to change their menu for many years. Stakeholders reported that an establishment-specific option involving a binary statement may be confusing to implement where a proportion of seafood is sourced internationally and a proportion is sourced from Australia.

Given some of the limitations identified in the modelling the CBA findings for option 6b should be read with caution. Further analysis is required before the CoOL Scheme is to be implemented in the foodservice sector given the heterogenous nature of the businesses, coupled with the divergent views among stakeholders on its merit. Further, it will be important to test the WTP specifically for seafood products, as this drives the benefits. The latter is particularly important given the establishment specific options are close to a BCR of one.

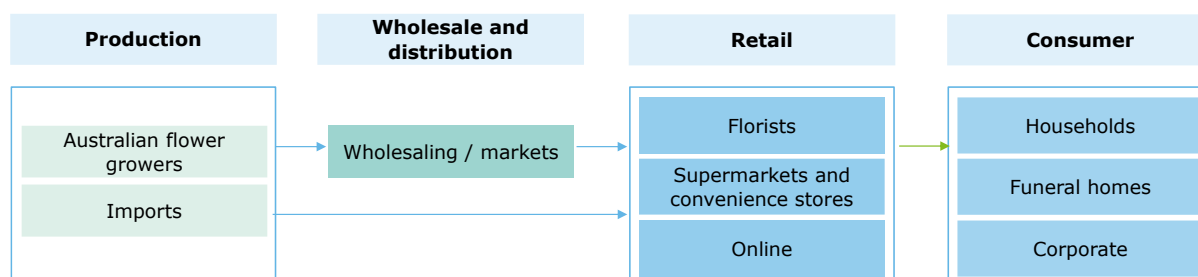
5 Option 7: Cut flowers

This section discusses the issue of whether CoOL should be extended to include cut flowers.

5.1 Background – the Australian cut flower industry

Cut flowers are purchased by households, funeral homes and corporate buyers, through a supply chain that broadly follows the flowchart shown in Figure 5.1.

Figure 5.1: Cut flower supply chain



Source: Deloitte Access Economics.

5.1.1 Flower production

It is estimated that there are 616 businesses earning \$235 million in revenue in flower production in Australia. This is a fall of around 25% to 30% in revenue and business numbers from 10 years ago, largely due to increasing imports.²³ Around one-third of growers are small, earning less than \$50,000 per annum.

There is limited information on the volume of flowers imported into Australia. A few years ago, the (then) DAWR estimated that 10% of cut flowers and foliage sold in Australia were imported, but some industry estimates at the time suggested the figure was closer to 30%. Consultation with several stakeholders from the flower industry quoted that roughly 50% of cut flowers sold in Australia are imported, with this proportion changing throughout the year based on demand (which peaks for events such as Valentine's Day and Mother's Day) and seasonality.

Most imports come from six to eight key countries, including Malaysia, Colombia, China, Kenya, South Africa and Ecuador. Most have significantly lower labour costs than Australia, and often better growing conditions. For example, roses are best grown at around 2,000 metres above sea level and hence are suited to locations, such as Kenya and Ecuador. Rose imports from these countries have affected the Australian industry. IBISWorld cites the example of the Atherton Tablelands, which has seen the number of rose growing businesses fall from 11 to one over the past 20 years.²⁴

While not solely the case, flowers sold in supermarkets are more likely to have been imported than those sold at florists.

5.1.2 Wholesaling and distribution

Around 62% of flowers grown in Australia are sold to wholesalers (including via markets such as the Sydney Flower Market and the Melbourne National Flower Centre), with 35% direct to

²³ IBISWorld (2020) *Floriculture Production in Australia*, July 2020 p14.

²⁴ IBISWorld (2020) *Floriculture Production in Australia*, July 2020 p12.

retailers.²⁵ Direct sales to retailers is becoming more common, in part because supermarkets are increasingly seeking to bypass markets and purchase direct from growers (or importers).

5.1.3 Retail

According to IBISWorld,²⁶ sales from Australia's 2,000 florists were \$864 million in 2019-20, although revenue in the florist sector has been flat for the past half-decade. However, there has been growth in the size of the cut-flower sector more broadly as supermarkets and convenience stores, as well as online only retailers, have increased sales. Supermarkets and convenience stores have been using their buying power to negotiate competitive supplier contracts, and typically offer lower prices and simpler product offerings. More sophisticated floral arrangements and flowers for special events (e.g. weddings) largely remain the province of florists.

While many bricks-and-mortar florists often have online sales, online sales are dominated by online-only retailers.

According to the Australian Industry and Skills Committee, there were approximately 6,700 persons employed as florists in 2020 (pre-COVID-19), although IBISWorld estimates this at 5,500 persons.²⁷

The largest player in the cut-flower sector in Australia is the Lynch Group. Lynch Group is a vertically integrated grower wholesaler and importer of fresh flowers. It is estimated to have around 20% of the Australian flower production market and is also a major importer from China where it has its own growing facility and distribution centre. Most of its revenue is from sales to supermarkets, including both Coles and Woolworths.²⁸

Many florists are members of Interflora Australia, which acts as a clearing house for long-distance flower deliveries.²⁹

5.1.4 Consumers

Households are estimated to purchase around 49% of cut flowers sold by florists, with wedding venues and funeral homes purchasing 33% and corporate clients purchasing 18% of cut flowers. Almost all cut flowers sold by supermarkets and convenience stores are likely to be purchased by households.³⁰

IBISWorld estimates that sales of floral arrangements (made from a variety of different flowers) are roughly 2.5 times that of simple cut flowers (unarranged and typically single-variety bunches).³¹

5.2 Imported flowers and chemical concerns

As imports have increased over the past few years, some florists and Australian growers have expressed concern about the use of chemicals to treat flowers, which are imported into Australia. This issue has featured in a number of recent press reports, with concerns surrounding the fact that stems of cut flowers are often dipped in glyphosate or treated with methyl bromide fumigation prior to entering Australia, and that chemical residue can remain on the stems, posing health risks to florists and consumers.

New regulations, introduced in March 2018 in response to high levels of pest infestation on imported cut flowers, required the exporting country's National Plant Protection Organisation to certify the flowers are pest-free and to fumigate them before they are shipped to Australia. However, compliance did not substantially improve and in September 2019, the Australian Government introduced requirements for an export permit from Columbia, Ecuador or Kenya. This

²⁵ IBISWorld (2020) *Floriculture Production in Australia*, July 2020 p21.

²⁶ IBISWorld (2020) *Flower Retailing in Australia*, August 2020.

²⁷ <https://nationalindustryinsights.aisc.net.au/industries/personal-services/floristry>

²⁸ IBISWorld (2020) *Floriculture Production in Australia*, July 2020 p35.

²⁹ IBISWorld (2020) *Flower Retailing in Australia*, August 2020 p32.

³⁰ IBISWorld (2020) *Flower Retailing in Australia*, August 2020 p22.

³¹ IBISWorld (2020) *Flower Retailing in Australia*, August 2020 p19.

improved outcomes, however, non-compliance remains high, with non-compliance of 63% from one country and at or above 20% for several other countries, from September 2019 to January 2020.³²

5.3 Stakeholder views

5.3.1 Flower industry

The Department's discussion paper noted that "industry groups often advocate for greater information about the origin of fresh-cut flowers to be more readily available to consumers."

There are two different sets of views on the need for a CoOL Scheme in the cut flower industry. One view is that a CoOL Scheme is desirable because it will:

- Better inform customers about the origin of cut flowers.
- Correct apparent misperceptions by consumers that cut flowers (especially Australian natives) are all grown in Australia.
- Highlight imports and signal to workers and consumers that certain flowers might have pests and chemical residue.
- Promote local growers and sales of Australian flowers, improving growers' financial viability and reducing biosecurity risks.

The issue of a lack of consumer knowledge about the origin of flowers was highlighted by stakeholders that supported CoOL for flowers. For example, Flower Industry Australia provided anecdotal evidence that staff members and managers at supermarkets in Melbourne, Sydney, Grafton and the Gold Coast were unaware of the origin of flowers.

The Australian Flower Council supported CoOL for the above reasons, but noted that CoOL for cut flowers would require solutions that are slightly different from those that are required for food items, due to mixed bunches being made from individual flowers sourced worldwide.

The National Farmers' Federation suggested that the rationale for providing country of origin information for cut flowers at the point of sale is no different to that for food products and should be in place to better inform consumers on their purchasing choice.

On the other hand, opponents to the inclusion of cut flowers in the CoOL Scheme cited concerns including the following:

- Practical difficulties – the supply chain for cut flowers is complex with many handling requirements, including by exporters and importers, growers, wholesale markets, distributors and retailers.
- Often flowers do not have any labels as they move through supply chain. This makes tracing origins complex and costly.
- There are particular complexities with labelling for mixed bunches of flowers where they are a mix of imported and local flowers.
- Many growers are small businesses and labelling costs would be significant.
- There is a lack of consumer demand for CoOL. One major industry player indicated it had a register of customer comments going back to 2013 and there had not been a single question regarding the origin of flowers.
- There is often a lack of alternative options even if CoOL information was available. Seasonality often means there are no directly comparable Australian flowers at certain times of the year – if you want a particular flower it must come from overseas.

5.3.2 Consumers

Our consumer research suggested that having access to more precise country of origin information for cut flowers does not appear to be important to most consumers. Cut flowers were not routinely identified in either the consumer focus groups or Deloitte's national consumer survey as a non-food product for which consumers would like to have greater country of origin information. Having said that, and as noted above, issues around the origin of cut flowers – including

³² Department of Agriculture, Water and the Environment (2020) 'Imported cut flowers and foliage', Stakeholder update, April 2020.

biosecurity and health risks from imported flowers - have been highlighted recently in a number of press reports.

An online change.org petition calling for the mandatory labelling of imported cut flowers and foliage has been circulating for six months and had 1,540 signatures as of 16 February 2021.

5.3.3 The New South Wales Grown in Australia trademark

Following an application by the Flower Growers Group of New South Wales (NSW), the Australian Government approved an Australian-grown trademark for cut flowers in 2018. The trademark can be applied only to flowers, which are grown in Australia, and cannot be used where Australian flowers are combined with imported flowers.³³ However, take-up of the trademark has been low, reportedly because funds have not been available to promote its use.

5.3.4 International CoOL schemes

Deloitte was unable to identify any overseas examples of mandatory CoOL requirements for cut flowers. However, some non-mandatory regional and national schemes do exist, for example, the Californian Cut Flower Commission initiated a "American Grown" certification scheme for cut flowers in 2014.³⁴

5.4 Alternative options for cut flowers, outside of the existing CoOL Scheme

The existing CoOL Scheme is designed for food and amendments would need to be made to accommodate cut flowers. A relatively straightforward way of doing so would be to require cut flowers to be identified at the point of retail sale as either:

- Grown in Australia (where 100% of the bunch/arrangement are grown in Australia).
- Grown outside Australia (which could cover the situation when bunches/arrangements are entirely grown in a single overseas country, or multiple overseas countries).
- Grown in Australia and overseas (where flowers are of mixed origin). A decision would need to be made regarding whether it is desirable to specify what proportion of flowers, in the case of a mixed bunch, are from overseas – i.e. aligning with the existing CoOL Scheme for food - or simply identifying that some are from overseas.

An alternative option would be to enable or mandate flowers 100% grown in Australia to be identified as "Grown in Australia", similar to the existing trademark, but not require overseas grown flowers to be identified as such. However, this form of labelling would be quite different from the existing CoOL Scheme, which provides that products or ingredients from overseas are identified as such.

Having considered the nature of the industry and stakeholders' positions, our view is that the benefits of including cut flowers in the existing CoOL Scheme (even with specific provisions relating to cut flowers) are unlikely to exceed the costs. While consumer interest in the origin of cut flowers has increased recently, it does not appear to currently be at a level that would justify inclusion in the CoOL Scheme. The supply chain complexities and common practice of selling flowers in mixed bunches is problematic and it would not be practical for flower sellers to specify the proportion of flowers in a particular bunch or arrangement that are from overseas. Ultimately, there is a risk that CoOL labelling would lead to higher costs for consumers.

Deloitte agrees with stakeholders that pests and chemical residue issues in respect of imported cut flowers do need addressing and there are potential consumer safety concerns; however, we do not consider that the existing CoOL Scheme is the best instrument to do so. Instead, the issues of pest and chemical residue should be managed directly through DAWE.

To the extent that some form of origin labelling for cut flowers is considered desirable, there are a number of paths that could be followed. These include:

³³ IP Australia (undated) 'Australian grown flowers', cited March 2021.

<https://www.ipaustralia.gov.au/tools-resources/certification-rules/1715512>

³⁴ <https://www.americangrownflowers.org/>

- A voluntary, industry-based scheme
- A mandatory, government-established scheme

These options are briefly discussed below. Note that other alternatives (e.g. mandatory, industry-based schemes) are also available.

Voluntary, industry-based scheme

Voluntary, industry-based regulatory schemes are most likely to be appropriate where there are clearly defined problems, but no high risk of serious or widespread harms to consumers. Where there are cost advantages and/or increased flexibility in industry-based schemes to address industry problems compared to government regulation, then there is a greater chance of improving market outcomes and minimising compliance costs.³⁵

Voluntary schemes work best with an active industry association and a mature industry structure. They are also more successful where there is an incentive to comply with self-regulation – for example to gain market advantage.

Voluntary schemes can often be more flexible and able to change to reflect altered industry circumstances than mandatory government schemes.

One option for a voluntary industry-based scheme would involve a certification or trademark arrangement similar to, or potentially using, the NSW Flower Growers Group trademark. Such a scheme could:

- Allow consumers to identify cut flowers that are grown in Australia.
- Avoid many of the costs associated with a mandatory scheme.
- Allow individual sellers (and growers) to make a decision about whether to become certified or use the trademark.

Mandatory, government schemes

Mandatory, government established schemes (of which CoOL is an example) have the advantage of being comprehensive (in that the entire industry must comply), are often developed using public processes that balance industry and consumer needs, and usually have stronger compliance and enforcement mechanisms. They tend to be more appropriate in circumstances where the consequence of inappropriate action is high and/or compliance with voluntary arrangements is likely to be low.

The downside of such schemes is that they are often more expensive to implement and less flexible than voluntary schemes. Compliance costs can often be an issue, particularly for small businesses, who would otherwise be able to choose to 'opt out' under a voluntary industry-based scheme.

We understand that Flower Industry Australia has indicated that it is strongly opposed to an industry-led voluntary mechanism and would prefer a legislated scheme.

5.5 Recommendation

As set out above, we do not consider that cut flowers should be included in the existing CoOL Scheme as we are concerned about the costs of doing so relative to the benefits. We are also not convinced that strong consumer demand for inclusion of cut flowers in CoOL currently exists, although we do recognise that this may be due to consumers making the (incorrect) assumption that cut flowers are grown in Australia.

To the extent that the government and/or industry do wish to pursue a country of origin labelling scheme for cut flowers, a less onerous and more tailored arrangements than the CoOL Scheme would be appropriate. This could take the form of either a voluntary, industry-based scheme or a mandatory government scheme.

³⁵ Wallace J, Ironfield D, Orr, J (2000) *Self-Regulation in Consumer Markets*, Report prepared for the Taskforce on Industry Self-regulation, Commonwealth Treasury, pp. 42-43.

Our concern with a mandatory government scheme is the risk that it may impose excessive costs on many smaller participants in the industry, potentially placing them at a competitive disadvantage. Although it would be less comprehensive, and thus not generate a similar level of consumer benefit, a voluntary industry-based scheme would give smaller operators the ability to decide whether to participate or not.

Our view is that, at least initially, a voluntary, industry-based scheme would be more appropriate. Depending on its success (including cost, impact on prices, take-up and consumer acceptance), a subsequent decision could be made as to whether a mandatory scheme should be adopted.

We note that the NSW Flower Growers Group has had difficulty in funding the rollout of its trademark and there is therefore a case for government funding and support for the industry to establish a scheme. This may assist with the success of the scheme and help to bring together the divergent views that currently exist within the industry on the desirability of a labelling scheme.

6 Conclusion

6.1 Key findings

The findings of this report can be summarised as follows:

- **Retrospective analysis:** The current CoOL Scheme represents a cost-effective change from the scheme, which was in place pre-2016. The modelling estimates find that the current CoOL Scheme will break even in FY2025 – that is, beyond this point, the benefits of the CoOL Scheme will outweigh the cost of the CoOL Scheme over the period from FY2016 to FY2041.
- **Prospective analysis:** Of the six prospective options modelled for future amendments to CoOL, only two returned a BCR significantly above one. These options were the education option – designed to improve consumer understanding and awareness of the scheme – and, the option to remove the non-priority exemption. The option which provided more information on imported ingredients delivered broadly the same BCR as the Base Case.

6.2 Considerations in interpretation

The modelling suggests that the current CoOL Scheme is operating more cost-effectively than the scheme that was previously in place. Of note, the modelling in this work suggests that the current iteration of the CoOL Scheme is perhaps more cost-effective than it was anticipated to be before implementation in 2016. While some of this reflects nuances in our modelling approach, costs of implementation and roll out have been lower than prospective forecast by businesses ahead of the roll-out.

The modelling of future options finds that an education campaign – designed to improve awareness and understanding of the regulations – would drive cost-effective outcomes. Our modelling has not assumed any specific format for this campaign and as such, campaign design would be the next point of consideration. While an estimated cost was included in our analysis, the modelling suggests that the cost could be higher than what was modelled and still achieve a net positive impact given the size of the gains relative to the cost of running such a campaign.

The modelling further found positive returns to the extension of CoOL to currently non-priority products.

Notably, it is inadvisable that any policy decision is made on the basis of a positive CBA alone. These results suggest that there is an economic benefit to pursuing the option, however, timing or implementation should be judged with consideration to risk profile and stakeholder readiness for change. As such, these results are considered alongside other relevant considerations as part of the Evaluation Report.

Appendix A Assumptions and sources

A.1. Underlying assumptions

Table A.1: Underlying assumptions of the CBA model

Description of input	Unit of measurement	Period	FY2022 inflated	Source
CAGR				
CAGR - no. small & very small food retailers	CAGR %	Initial & ongoing	-0.71%	8165.0 Counts of Australian Businesses, including Entries and Exits
CAGR - no. medium food retailers	CAGR %	Initial & ongoing	-4.84%	8165.0 Counts of Australian Businesses, including Entries and Exits
CAGR - no. large food retailers	CAGR %	Initial & ongoing	-5.92%	8165.0 Counts of Australian Businesses, including Entries and Exits
CAGR - no. small & very small food manufacturers	CAGR %	Initial & ongoing	2.31%	8165.0 Counts of Australian Businesses, including Entries and Exits
CAGR - no. medium food manufacturers	CAGR %	Initial & ongoing	-4.31%	8165.0 Counts of Australian Businesses, including Entries and Exits
CAGR - no. large food manufacturers	CAGR %	Initial & ongoing	-2.54%	8165.0 Counts of Australian Businesses, including Entries and Exits
Priority vs non-priority				
Proportion of goods - priority	%	Ongoing	80.00%	Revised estimate from Coles stakeholder
Proportion of goods - non-priority	%	Ongoing	20.00%	Revised estimate from Coles stakeholder
SKU				
Packaged & priority	p.a.	Initial	56,638	SKU data from Arup modelling

Description of input	Unit of measurement	Period	FY2022 inflated	Source
Packaged & non-priority	p.a.	Initial	14,159	SKU data, Arup modelling
Unpackaged & priority	p.a.	Initial	6,385	SKU data from Arup modelling
Unpackaged & non-priority	p.a.	Initial	1,596	SKU data from Arup modelling
Australia households				
Number of Australian households (2016)	Number	Initial & ongoing	8,286,084	ABS 2016 census data

Source: Deloitte Access Economics analysis.

A.2. Retrospective analysis

A.2.1. Costs

Table A.2: Cost assumptions and inputs used in the retrospective analysis

Description of input	Unit of measurement	Period	FY2022 inflated	Source
Government				
Advertising campaign - actual expense FY2016	p.a.	FY2016	\$6,200,000.00	CoOL communication information summary documentation
Advertising campaign - actual expense FY2017	p.a.	FY2017	\$5,600,000.00	CoOL communication information summary documentation
Actual spend by ACCC on monitoring and enforcement over FY2018 to FY2020	Over 3 years	FY2018-FY2020	\$3,100,000.00	Provided by stakeholder
Consumer benefits				
WTP benefits of status quo, relative to Base Case	Relative benefit p.a.	Initial & ongoing	63,992,326.13	Consumer survey analysis
Business overheads				
Upgrade IT & system, small business	Per business, p.a.	Initial	\$628.06	Business survey analysis
Upgrade IT & system, medium business	Per business, p.a.	Initial	\$4,345.64	Business survey analysis

Description of input	Unit of measurement	Period	FY2022 inflated	Source
Upgrade IT & system, large business	Per business, p.a.	Initial	\$86,244.71	Business survey analysis
Staff time, small business	Per business, p.a.	Initial	\$385.32	Business survey analysis
Staff time, medium business	Per business, p.a.	Initial	\$369,383.05	Business survey analysis
Staff time, large business	Per business, p.a.	Initial	\$125,918.82	Business survey analysis
External advice & assurance, small business	Per business, p.a.	Initial	\$355.45	Business survey analysis
External advice & assurance, medium business	Per business, p.a.	Initial	\$5,116.25	Business survey analysis
External advice & assurance, large business	Per business, p.a.	Initial	\$132,894.71	Business survey analysis
Packaging/labelling cannot be used, small business	Per business, p.a.	Initial	\$598.98	Business survey analysis
Packaging/labelling cannot be used, medium business	Per business, p.a.	Initial	\$12,962.68	Business survey analysis
Packaging/labelling cannot be used, large business	Per business, p.a.	Initial	\$135,247.65	Business survey analysis
Determine percentage of Australian ingredients, small business	Per business, p.a.	Initial	\$463.91	Business survey analysis
Determine percentage of Australian ingredients, medium business	Per business, p.a.	Initial	\$7,555.98	Business survey analysis
Determine percentage of Australian ingredients, large business	Per business, p.a.	Initial	\$139,042.28	Business survey analysis
IT & record keeping, small business	Per business, p.a.	Ongoing	\$8.36	Business survey analysis
IT & record keeping, medium business	Per business, p.a.	Ongoing	\$231.93	Business survey analysis
IT & record keeping, large business	Per business, p.a.	Ongoing	-\$9,207.82	Business survey analysis
Staff time, small business	Per business, p.a.	Ongoing	\$49.70	Business survey analysis

Description of input	Unit of measurement	Period	FY2022 inflated	Source
Staff time, medium business	Per business, p.a.	Ongoing	\$1,473.59	Business survey analysis
Staff time, large business	Per business, p.a.	Ongoing	\$5,379.02	Business survey analysis
External advice & assurance, small business	Per business, p.a.	Ongoing	\$73.10	Business survey analysis
External advice & assurance, medium business	Per business, p.a.	Ongoing	\$1,153.74	Business survey analysis
External advice & assurance, large business	Per business, p.a.	Ongoing	-\$6,265.84	Business survey analysis
Determine percentage of Australian ingredients, small business	Per business, p.a.	Ongoing	-\$30.05	Business survey analysis
Determine percentage of Australian ingredients, medium business	Per business, p.a.	Ongoing	\$2,727.87	Business survey analysis
Determine percentage of Australian ingredients, large business	Per business, p.a.	Ongoing	\$13,516.84	Business survey analysis
Labelling costs				
Labelling costs - packaged & priority	Per SKU	Initial	\$251.53	51.5% from Arup assumption
Labelling costs - packaged & non-priority	Per SKU	Initial	\$166.03	Business survey analysis
Labelling costs - unpackaged & priority	Per SKU	Initial	\$261.71	51.5% from Arup assumption
Labelling costs - unpackaged & non-priority	Per SKU	Initial	\$172.74	Business survey analysis
Labelling costs - packaged & priority	Per SKU	Ongoing	\$147.31	51.5% from Arup assumption
Labelling costs - packaged & non-priority	Per SKU	Ongoing	\$97.24	Business survey analysis
Labelling costs - unpackaged & priority	Per SKU	Ongoing	\$145.59	51.5% from Arup assumption

Description of input	Unit of measurement	Period	FY2022 inflated	Source
Labelling costs - unpackaged & non-priority	Per SKU	Ongoing	\$96.10	Business survey analysis

Source: Deloitte Access Economics analysis.

A.2.2. Benefits

Table A.3: Benefit assumptions and inputs used in the retrospective analysis

Description of input	Unit of measurement	Period	FY2022 inflated	Source
Time savings consumers - Use of visual elements				
Proportion of consumers that refer to CoOL always	%	Initial & ongoing	18.22%	Consumer survey Q7
Number of households that are likely to benefit always	Number	Initial & ongoing	1,509,544	Consumer survey Q7
Time spent reading CoOL information in typical grocery shop	Minutes, seconds	Initial & ongoing	4 minutes 48 seconds	Colmar Bruton Research
Rate at which pictures can be processed faster than words	Number	Initial & ongoing	6	https://www.emailaudience.com/research-picture-worth-1000-words-marketing/
Time taken to interpret visuals in a typical grocery shop	Revised hours spent, per trip in hours	Initial & ongoing	0.01	Calculation
Time saved in a typical grocery shop (full-time saving)	Time savings per trip, hours	Initial & ongoing	0.07	Calculation
How often time saving is achieved for those that always read CoOL	Proportion	Initial & ongoing	100%	DAE assumption
Number of grocery shops per household, per year	Number	Initial & ongoing	52.00	DAE assumption
Value of time per hour	Dollar	Initial & ongoing	\$29.00	Office of Best Practice Regulation regulatory burden measurement framework page 15: "leisure time should be valued at \$29/hour"

Description of input	Unit of measurement	Period	FY2022 inflated	Source
Avoided AMCL fees				
Overall percentage of small businesses that avoided AMCL fees	%	Initial & ongoing	3.16%	Business survey
Overall percentage of medium businesses that avoided AMCL fees	%	Initial & ongoing	3.16%	Business survey
Overall percentage of large businesses that avoided AMCL fees	%	Initial & ongoing	3.16%	Business survey
Average revenue of small businesses no long paying AMCL fees	Average revenue p.a. - basis for AMCL fees	Initial & ongoing	\$1,380,200.00	Business survey
Average revenue of medium businesses no long paying AMCL fees	Average revenue p.a. - basis for AMCL fees	Initial & ongoing	\$13,705,000.00	Business survey
Average revenue of large businesses no long paying AMCL fees	Average revenue p.a. - basis for AMCL fees	Initial & ongoing	\$865,326,500.00	Business survey
Approximate avoided AMCL licence fees for small business	Based on the average revenue calculated above. Fees p.a. ex GST	Initial & ongoing	\$1,000.00	https://www.australianmade.com.au/for-business/how-much-does-it-cost/
Approximate avoided AMCL licence fees for medium business	Based on the average revenue calculated above. Fees p.a. ex GST	Initial & ongoing	\$12,500.00	https://www.australianmade.com.au/for-business/how-much-does-it-cost/
Approximate avoided AMCL licence fees for large business	Based on the average revenue calculated above. Fees p.a. ex GST	Initial & ongoing	\$25,000.00	https://www.australianmade.com.au/for-business/how-much-does-it-cost/
Time savings businesses - Removed cost of production test				
Proportion of businesses subject to CoOL that indicated a time saving from use of safe harbour defences	Percentage of business survey respondents	Initial & ongoing	10.53%	Business survey
Of which saved less than one hour	Percentage of business survey respondents	Initial & ongoing	5.00%	Business survey

Description of input	Unit of measurement	Period	FY2022 inflated	Source
Of which saved approximately 1 to 2 hours	Percentage of business survey respondents	Initial & ongoing	30.00%	Business survey
Of which saved approximately 3 to 4 hours	Percentage of business survey respondents	Initial & ongoing	40.00%	Business survey
Of which saved approximately 5 to 6 hours	Percentage of business survey respondents	Initial & ongoing	12.50%	Business survey
Of which saved approximately 7 to 9 hours	Percentage of business survey respondents	Initial & ongoing	2.50%	Business survey
Of which saved approximately 10 to 15 hours	Percentage of business survey respondents	Initial & ongoing	5.00%	Business survey
Of which saved over 15 hours	Percentage of business survey respondents	Initial & ongoing	5.00%	Business survey
Value of time, whilst working	Per person, per hour	Initial & ongoing	\$65.45	Office of Best Practice Regulation Regulatory burden measurement framework Page 15

Source: Deloitte Access Economics analysis.

A.3. Prospective analysis

A.3.1. Costs

Table A.4: Cost assumptions and inputs used in the prospective analysis

Description of input	Unit of measurement	Period	FY2022 inflated	Source
Cost of education campaign				
Spend on education campaign	p.a.	FY2016	\$6,760,340.03	DAE assumption - same size campaign as FY2016
Spend on education campaign	p.a.	FY2017	\$6,108,621.99	DAE assumption - same size campaign as FY2017
Reduced regulation option				
Estimated percentage of businesses/SKU's likely to move online	Percentage of businesses	Initial & ongoing	8%	Business survey

Description of input	Unit of measurement	Period	FY2022 inflated	Source
Estimated rise in search time for consumers that always read CoOL labels	Hour	Initial & ongoing	0.50	DAE assumption
Cost of expanding to online shopping platforms				
Proportion of businesses who are subject to CoOL & sell food or beverage products online - need to provide CoOL online	Percentage of businesses	Initial & ongoing	26%	DAE Business survey
Proportion of businesses who are subject to CoOL & sell food or beverage products online & already provide CoOL info online for all products	Percentage of businesses	Initial & ongoing	16%	DAE Business survey
Proportion of businesses who would need to expand existing CoOL requirements to their online operations	Percentage of businesses	Initial & ongoing	11%	DAE Business survey
Average cost of providing CoOL information online	Per business, p.a.	Initial	\$12,434.73	DAE Business survey
Average annual cost to provide CoOL online	Per business, p.a.	Ongoing	\$12,456.29	DAE Business survey
Cost of expanding to online shopping platforms				
Cost of removing distinction between priority and non-priority				
Extra labelling costs for packaged, non-priority	Per SKU	Initial	\$251.53	See labelling cost assumption table
Extra labelling costs for packaged, non-priority	Per SKU	Ongoing	\$50.08	See labelling cost assumption table
Extra labelling costs for unpackaged, non-priority	Per SKU	Initial	\$261.71	See labelling cost assumption table
Extra labelling costs for unpackaged, non-priority	Per SKU	Ongoing	\$49.49	See labelling cost assumption table
Cost of more information - imported ingredients				

Description of input	Unit of measurement	Period	FY2022 inflated	Source
Proportion of priority SKU's is the same as % of businesses that ONLY sell priority SKU's	%	Initial & ongoing	80%	DAE assumption
Extra labelling costs for packaged, priority	Per SKU	Initial	\$251.53	DAE assumption
Extra labelling costs for unpackaged, priority	Per SKU	Initial	\$261.71	DAE assumption
Extra labelling costs for packaged, priority	Per SKU	Ongoing	\$44.19	DAE assumption
Extra labelling costs for unpackaged, priority	Per SKU	Ongoing	\$43.68	DAE assumption
Proportion of businesses that do not have products from 100% Australian ingredients	Percentage of businesses	Initial & ongoing	95%	DAE assumption
Proportion increase in the costs of determining the proportion of Australian ingredients both initial and ongoing	Percentage increase in costs of status quo	Initial & ongoing	50%	DAE assumption
Cost to expand to foodservice				
Proportion of foodservice businesses that already have CoOL	Percentage of businesses	Initial & ongoing	1.00%	DAE assumption
Once-off cost of CoOL - reported by Cafés/restaurants - small	Per business, p.a.	Initial	\$11,253.43	Business survey
Once-off cost of CoOL - reported by Cafés/restaurants - medium	Per business, p.a.	Initial	\$1,180.00	Business survey
Once-off cost of CoOL - reported by Cafés/restaurants - large	Per business, p.a.	Initial	\$834,166.67	Business survey
Annual ongoing cost of CoOL - reported by Cafés/restaurants - small	Per business, p.a.	Ongoing	\$1,785.18	Business survey

Description of input	Unit of measurement	Period	FY2022 inflated	Source
Annual ongoing cost of CoOL - reported by Cafés/restaurants - medium	Per business, p.a.	Ongoing	\$1,310.20	Business survey
Annual ongoing cost of CoOL - reported by Cafés/restaurants - large	Per business, p.a.	Ongoing	\$1,725.00	Business survey
Once-off cost of CoOL - reported by takeaway - small	Per business, p.a.	Initial	\$1,966.00	Business survey
Once-off cost of CoOL - reported by takeaway - medium	Per business, p.a.	Initial	\$1,000.00	Business survey
Once-off cost of CoOL - reported by takeaway - large	Per business, p.a.	Initial	\$1,025,000.00	Business survey
Annual ongoing cost of CoOL - reported by takeaways - small	Per business, p.a.	Ongoing	\$2,700.00	Business survey
Annual ongoing cost of CoOL - reported by takeaways - medium	Per business, p.a.	Ongoing	\$1.00	Business survey
Annual ongoing cost of CoOL - reported by takeaways - large	Per business, p.a.	Ongoing	\$425,000.00	Business survey
Cost to expand to foodservice for seafood and meat products				
Annual ongoing cost of ingredient specific scheme – small/medium Cafés/restaurants	Per business, p.a.	Initial & ongoing	\$332.34	Stakeholder consultation
Annual ongoing cost of ingredient specific scheme – large Cafés/restaurants	Per business, p.a.	Initial & ongoing	\$173.93	Stakeholder consultation
Annual ongoing cost of ingredient specific scheme – small/medium takeaways	Per business, p.a.	Initial & ongoing	\$1.34	Stakeholder Consultation

Description of input	Unit of measurement	Period	FY2022 inflated	Source
Annual ongoing cost of ingredient specific scheme – large takeaways	Per business, p.a.	Initial & ongoing	\$34.79	DAE Assumption
Once-off cost of ingredient specific scheme – small/medium cafes/restaurants	Per business, p.a.	Initial	\$10,266.61	Business Survey
Once-off cost of ingredient specific scheme – large Cafés/restaurants	Per business, p.a.	Initial	\$834,166.67	Business Survey
Once-off cost of ingredient specific scheme – small takeaways	Per business, p.a.	Initial	\$1,916.27	Business Survey
Once-off cost of ingredient specific scheme – large takeaways	Per business, p.a.	Initial	\$1,025,000.00	Business Survey
Ongoing cost of establishment specific scheme – small/medium Cafés/restaurants	Per business, p.a.	Initial & ongoing	\$67.15	DAE Assumption
Ongoing cost of establishment specific scheme – large Cafés/restaurants	Per business, p.a.	Initial & ongoing	\$6.72	DAE Assumption
Ongoing cost of establishment specific scheme – small/medium takeaways	Per business, p.a.	Initial & ongoing	\$0.34	DAE Assumption
Ongoing cost of establishment specific scheme – large takeaways	Per business, p.a.	Initial & ongoing	\$0.34	DAE Assumption
Once-off cost of establishment specific scheme – small/medium Cafés/restaurants	Per business, p.a.	Initial	\$10,266.61	Business Survey
Once-off cost of establishment specific scheme – large Cafés/restaurants	Per business, p.a.	Initial	\$834,166.67	Business survey

Description of input	Unit of measurement	Period	FY2022 inflated	Source
Once-off cost of establishment specific scheme – small/medium takeaways	Per business, p.a.	Initial	\$1,916.27	Business Survey
Once-off cost of establishment specific scheme – large takeaways	Per business, p.a.	Initial	\$1,025,000.00	Business Survey
Government education, monitoring and enforcement costs	5 years	FY2022-26	\$16,906,696.30	See expansion to foodservice assumption table
Voluntary business participation under ingredient specific scheme – small/medium Cafés/restaurants	Percentage of businesses	Initial & ongoing	1%	DAE Assumption
Voluntary business participation under ingredient specific scheme – large Cafes/restaurants	Percentage of businesses	Initial & ongoing	1%	DAE Assumption
Voluntary business participation under ingredient specific scheme – small/medium takeaways	Percentage of businesses	Initial & ongoing	1%	DAE Assumption
Voluntary business participation under ingredient specific scheme – large takeaways	Percentage of businesses	Initial & ongoing	1%	DAE Assumption
Voluntary business participation under establishment specific scheme – small/medium Cafes/restaurants	Percentage of businesses	Initial & ongoing	1%	DAE Assumption
Voluntary business participation under establishment specific scheme – large Cafes/restaurants	Percentage of businesses	Initial & ongoing	1%	DAE Assumption
Voluntary business participation under establishment specific	Percentage of businesses	Initial & ongoing	1%	DAE Assumption

Description of input	Unit of measurement	Period	FY2022 inflated	Source
scheme – small/medium takeaways				
Voluntary business participation under establishment specific scheme – large takeaways	Percentage of businesses	Initial & ongoing	1%	DAE Assumption
Percentage of foodservices that serve seafood products	Percentage of businesses	Initial & ongoing	55%	FRDC, 'Tracking the impacts on seafood consumption at dining venues arising from the Northern Territory's seafood labelling laws.'
Percentage of foodservices that serve seafood and/or meat products	Percentage of businesses	Initial & ongoing	96.5%	Stakeholder consultation
Percentage of large foodservices	Percentage of businesses	Initial & ongoing	0.37%	Calculation
CAGR – growth no. foodservices	CAGR percent	Initial & ongoing	2.41%	Calculation
CAGR – inflation (CPI)	CAGR percent	Initial & ongoing	1.84%	Calculation
CAGR – wages in foodservice sector	CAGR percent	Initial & ongoing	2.51%	Calculation

Source: Deloitte Access Economics analysis.

A.3.2. Benefits

Table A.5: Benefits assumptions and inputs used in the prospective analysis

Description of input	Unit of measurement	Period	FY2022 inflated	Source
WTP for CoOL				
Relative WTP CoOL - education option	Relative benefit p.a.	Initial & ongoing	\$13,346,339.19	Calculation
Relative WTP CoOL - reduced regulatory burden option	Relative benefit p.a.	Initial & ongoing	-\$13,944,689.42	Calculation
Relative WTP CoOL - online shopping option	Relative benefit p.a.	Initial & ongoing	\$2,777,465.19	Calculation

Description of input	Unit of measurement	Period	FY2022 inflated	Source
Relative WTP CoOL - non-priority option	Relative benefit p.a.	Initial & ongoing	\$27,515,383.34	Calculation
Relative WTP CoOL - more information on ingredients option	Relative benefit p.a.	Initial & ongoing	\$9,296,459.61	Calculation
Relative WTP CoOL - foodservice option	Relative benefit p.a.	Initial & ongoing	\$118,578,803.17	Calculation

Source: Deloitte Access Economics analysis.

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