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Rice Vesting Review 2021

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Contents

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Finally, the DPI also acknowledges the input of the many rice growers and regional businesses who provided personal reflections and feedback during consultation and via submissions to the Review.

Executive summary

This Review of the marketing arrangements for NSW rice was undertaken to fulfill the NSW Government's obligation to assess the costs and benefits prior to remaking any statutory rice vesting proclamation and to meet its commitments under the Intergovernmental Agreement on Competition and Productivity Enhancing Reforms. The objective of this Review was to provide an evidence-based analysis of the legislation prior to the end of the current vesting period on 30 June 2022.

Pursuant to the Rice Marketing Act 1983 (The Act), all rice grown in NSW is to be vested in, and become the property of, the Rice Marketing Board for the State of NSW (RMB). Partial deregulation of domestic sales of NSW grown rice in 2006 means that the RMB can issue unlimited Authorised Buyers Licenses (ABLs) to interested parties to sell NSW grown rice in the domestic market. Thirteen ABLs were issued for the domestic rice market in the 2020-21 fiscal year.

The Act also prescribes that the RMB can only allow one of the ABL holders to sell NSW-grown rice into international export markets. Ricegrowers Limited (trading as SunRice) holds this license and is one of the thirteen current ABL holders. The RMB has also entered into a separate but related Sole and Exclusive Export License (SEEL) with SunRice. This arrangement constitutes what is sometimes referred to as the "single desk".

This Review was conducted and authored by the NSW Department of Primary Industries (DPI), with key economic analysis provided by the NSW Productivity Commission (NSW PC) via an independent consultant, The Centre for International Economics (CIE).

The Review was launched in March 2021 with the announcement of the Terms of Reference (ToR), the issue of an Information Paper, and call for public submissions. This was followed by a program of public and targeted consultation with key industry stakeholders across the Riverina/Murray and Northern Rivers regions. 181 submissions were received.

Stakeholder views

Submissions and statements made in consultation with rice growers and others associated with the southern NSW rice industry indicated that the majority of stakeholders in the region support vesting. Supporters believe that vesting provides the best return to growers and is the most efficient way for the industry to secure, develop and maintain the best markets for NSW rice.

However, there are also some stakeholders that are not supportive of vesting. Opponents argue that the legislative arrangements are preventing growers from accessing alternative marketing options and more competitive pricing for rice, restricting the growth of the Northern Rivers rice industry, and limiting market diversification. The majority of these stakeholders are associated with the Northern NSW rice industry where there was unanimous opposition to rice vesting. There is also an increasing number of growers, located in the Riverina/Murray region, who also oppose the current regulatory arrangements. The level of opposition to vesting in the southern growing region is modest, although not insignificant.

The benefits and costs of vesting

In addressing the ToR, the Review required an assessment of whether the benefits of the legislation exceed the costs and whether the benefits could only be achieved by restricting competition. A combination of quantitative and qualitative analysis was used throughout the Review.

The DPI identified an extensive list of costs and benefits based on the salient points raised throughout the submission and consultation process.

Supporters of vesting claim that the legislative arrangement provides the best net return to growers and that vesting is the most efficient way for the industry to secure, develop, and maintain the best markets for NSW-grown rice. Supporters claim numerous benefits of vesting, including that it enables the industry to:

- Achieve export price premiums (EPP).
- Achieve economies of scale in freight, storage, milling, processing, and marketing.
- Provide for a buyer-of-last-resort, to ensure a market for producers.
- Invest with confidence in industry Research & Development (R&D).
- Support the regional economy through employment, investment, and community support.

Opponents of vesting, and supporters of change, argue that the 'one size fits all' approach to rice marketing is preventing growers from accessing alternative marketing options and more competitive pricing for rice. They argue that there are numerous costs of vesting including:

- Restricting the growth of the Northern Rivers rice industry and the development of new supply chains.
- Limiting market diversification and risk management strategies.
- Restricting efficiency and innovation across the supply chain.
- Limiting the ability of rice to compete with other commodities for land or water resources and driving some growers to limit the amount of rice produced or exit the industry.

The analysis

To analyse, qualify, and quantify the benefits and costs of vesting on the rice industry and community, tangible evidence was sought on the magnitude of such benefits and costs, and their overall impact. Both DPI and the CIE economic analysis addressed a range of cited benefits and costs of vesting which were informed by data, analysis and opinions provided by industry, stakeholder submissions and feedback from consultation.

For the economic analysis, a range of methodologies were applied including cost-benefit analysis to evaluate net benefit and economic modelling to analyse a range of scenarios based on differing levels of change.

This Review has taken different approaches to the assessment of net benefit than those used in the past.

These approaches improved on previous analysis by:

- Testing for the presence of price premiums on a market-by-market basis, and where possible, adjusting for potential explanatory variables.
- Analysing whether SunRice possesses the market power required to command an EPP, or if the premium is due to other factors such as product positioning, branding and quality.
- Assessing the economic impact on the NSW rice industry under a range of alternate policy settings against the baseline current vesting policy setting. This included a scenario for the full deregulation of the domestic and export vesting arrangements. Previous reviews have only compared prices achieved by SunRice to overseas competitors.
- Acknowledging that SunRice and the current rice industry have developed a sophisticated supply chain which offers growers a broad range of business services and benefits that are not necessarily related to vesting.

In addition to assessing net benefit, a key consideration for this Review was whether vesting is required to achieve the identified benefits for rice growers and the community. In assessing the claimed benefits and costs, it was important to separate those which are dependent on vesting (those that are unique to the vesting arrangements and would be lost under a system with more than one seller) and those that are not unique to vesting and would still exist in the face of increased competition.

Findings

Do the benefits of rice vesting outweigh the costs to the community as a whole?

- There is no conclusive evidence of net benefits to rice growers or the community, from the current vesting arrangements.
- Vesting is restricting the growth and development of domestic supply chains, prospective new export supply chains, and inhibiting innovation in some farm businesses.
- If vesting was removed, the impact on the current SEEL holder would likely be restricted to some competition from comparatively small volume new entrants and expansion of some existing domestic market traders into the export market. However, the benefits are estimated to outweigh these costs.
- The current SEEL holder is expected to enjoy ongoing support from the majority of its growers, many of whom own a financial and controlling stake in the company.
- The amount of rice produced in NSW will remain dependent on rice continuing to be competitive with alternate uses of land and water resources.

- All alternative policy scenarios assessed delivered a positive net benefit compared to the baseline current vesting arrangements, but small in relation to the scale of the NSW industry in what could be reasonably expected to be 'normal' production years.
- Removing rice vesting in its entirety is estimated to increase the value of NSW rice production by $80 million to $133 million over the next six years in Net Present Value (NPV) terms after considering costs to the current holder of the SEEL. This is an increase of between 4 per cent and 6 per cent in projected baseline industry sales over the six-year period.

Are any net benefits (or the majority of these benefits) derived as a result of rice vesting alone?

- There is no conclusive evidence that vesting, through the restriction of export competition, is delivering higher prices for NSW rice exports. Rather, higher prices are most likely attributable to a range of external factors such as targeted high value market placement, product and quality differentiation, market positioning, year-round supply, commercial expertise, and supply chain cost differences, which would be mostly maintained under a competitive export environment.
- Freight scale advantage (FSA) benefits can be mostly attributed to the SEEL holder's ability to leverage both domestic and international scale in freight supplier negotiations. The analysis estimates that if vesting was removed, there would be minimal impact on the FSA due to a modest reduction in supply, however the majority of the FSA would remain.
- The buyer-of-last-resort provision is providing growers some unmeasurable benefits such as market surety, provided minimum quality standards are achieved. However, these benefits can be maintained by alternate means such as the existing contractual arrangements offered by SunRice prior to planting rice crops.
- Industry R&D has benefited growers through improving resource efficiency and farm returns, but these benefits are not dependent on vesting. These benefits can be maintained with industry led coordination of R&D investment activities. Some of the benefits of prior public and private R&D investments are restricted to segments of the rice industry.
- The quantitative and qualitative analysis presented in this report indicates that net benefits are not dependent on vesting in the current rice industry and, the majority of these benefits would continue to be achieved under competitive selling arrangements.

In the absence of rice vesting, would a viable rice export market continue to provide benefits for NSW rice growers?

- There is no evidence to indicate that greater competition will compromise the viability of export markets for NSW-grown rice.
- There is intent from various stakeholders to start new rice trading operations or expand existing rice trading operations if access to the export market is granted.

This is underpinned by the view that they can achieve higher returns for their businesses by differentiating their products and by providing market diversification in order to manage their market risk.

- Large-scale new entrants are unlikely to establish and thereby erode export market share significantly due to the barriers to investment in the current domestic rice environment which include constrained rice supply, excess processing capacity, and the SEEL holder's dominant domestic market share.
- Impacts on regional employment in the existing supply chain under the removal of vesting scenario and associated reduction in supply, would likely be offset by employment in new supply chains.
- The current SEEL holder will maintain almost all of its scale and market share due to a strong baseline level of domestic grower support, large scale infrastructure, and existing domestic and international sourcing arrangements. The industry is expected to face continued competition for use of land and water resources and the entire supply chain must continue to offer rice farmers a competitive return for rice production to remain viable.
- In the absence of vesting, greater competition and innovation would enhance the long-term viability of the rice industry.

1. Introduction

1.0.1 The NSW rice industry is located predominantly within the Riverina/Murray region of NSW, with a smaller industry also situated in the Northern Rivers region of NSW. Rice grown in the Riverina/Murray is dependent on irrigation, largely sourced from water storages located on the Murrumbidgee and Murray Rivers. Rice grown in the Northern Rivers region is predominantly rain-fed however, irrigation can be utilised at certain times during the growing season and in times of low water availability.

1.0.2 The majority of rice grown in NSW is Japonica (short and medium grain rice) although some Indica (long grain) varieties are also grown in smaller quantities.

1.0.3 More information on the NSW rice industry, domestic and global rice production, and the domestic and international rice markets can be found in Appendix A.

1.1 Regulatory arrangements for rice marketing in NSW

The Rice Marketing Act and vesting

1.1.1 In the marketing of agricultural commodities, vesting is a legislative arrangement under which legal ownership of a commodity is commonly transferred from primary producers to a statutory marketing authority[10]. Rice vesting is a NSW Government policy instrument, established through the *Rice Marketing Act 1983* (The Act), intended to deliver net benefits to rice growers and the broader community. The Act establishes the authority of the Rice Marketing Board of New South Wales (RMB) to regulate NSW rice marketing and hence making all rice produced in the State of NSW the legal property of the RMB.

Vesting was once a common practice for marketing agricultural products, but NSW export rice is now thought to be the last remaining commodity regulated in this way.

Historically, the vesting of primary products in Australia has been enacted with a view to providing benefits to growers and the wider community by:

a) in domestic markets (prior to 2006), providing primary producers with the ability to counteract the greater market power of purchasers of their produce; and

b) in export markets:

- enabling an industry to take advantage of market opportunities which are unable to be exploited by private exporters acting independently.
- providing primary producers with the power to counter world market conditions which depress or distort commodity prices.

1.1.3 As stated in the second reading speech in 1983, the overarching objective of The Act is described as being to facilitate the commercial and efficient marketing of agricultural commodities in the best long-term interests of producers.

1.1.4 The market control provided by vesting applies to all rice grown in NSW. In 2006, amendments were enacted which provided for the partial deregulation of the domestic rice market. The policy of deregulation resulted from a National Competition Policy

(NCP) review of The Act and was implemented through the introduction of Authorised Buyer Licenses (ABL) for the sale of rice on the domestic market. The amendments also stipulated the conditions required of the authorised buyer appointed to fulfil the single export desk[59].

1.1.5 Vesting arrangements are not issued in perpetuity. The vesting period is established by proclamation made by the NSW Governor on the advice of the Minister responsible and is for a specified period. The current proclamation expires on the 30th June 2022.

1.2 The Rice Marketing Board of NSW

1.2.1 The RMB is established under the The Act. The objectives of the Board, as gazetted by the NSW Governor on 23 May 2009, are to:

- to encourage the development of a competitive domestic market for rice;
- to ensure the best possible returns from rice sold outside of Australia based on the quality differentials or attributes of Australian-grown rice; and
- to liaise with and represent the interests of all NSW rice growers in relation to the Board's functions and objects.

1.2.2 The RMB is comprised of seven board members in total, with a Chair and Deputy Chair elected from the board membership. There are two types of board members, with different board appointment processes as described below:

- **Nominated Members**: There are four ministerially nominated board members. Prospective nominated board members with suitable skills are identified, and a competitive recruitment process is conducted to nominate candidates to the Minister for appointment or otherwise. The Act prescribes that the Chair and Deputy Chair must be selected from the four nominated board members.
- **Elected Member**s: There are three grower elected board members. Prospective elected board members are nominated for appointment, with an election conducted by the Australian Electoral Commission per the terms prescribed in The Act, with voting eligibility restricted to NSW rice growers. Two of the elected members are also granted reciprocal board director positions on the SunRice board as a result of their appointment to the RMB, otherwise referred to as 'dual-directors' (previously all three were dual-directors). The justification for the dual-director responsibilities has previously been to assist the RMB to assess the performance of the vesting arrangements.

1.2.3 As rice is a vested commodity, only authorised buyers may deal in rice produced in NSW. Section 51a of The Act prescribes the conditions under which the Board may appoint ABL's. The Act authorises the Board to set fees to be paid by ABL holders and to impose conditions on where they market rice. The Board appoints authorised buyers separately for trading rice on the domestic and export markets:

- **Domestic buyers**: One of the Board's principal operations is to administer the issue of ABLs and monitor the operations of the license holders against the terms of the license, regulations, and the Board's functions. Prospective license holders are required to attest that neither they, nor their trading partners, will

export NSW grown rice, complete an application form, and submit various information including financial information to the Board. An ABL subcommittee reviews the application and, if successful, the Board issues a license to buyers for domestic sales and requires an annual payment of fixed and variable production contingent fees, as well as an audit report about rice received, sold and stored by the license holder. This entitles the ABL holder to trade NSW grown rice in the domestic Australian market only, except for a single ABL holder as discussed below.

- **Export License:** The Board also issues and manages the Sole and Exclusive Export Licence (SEEL) granting the exclusive right to export NSW grown rice, which is granted to a single ABL holder. Since the Board was established in 1983 the SEEL has been issued to Ricegrowers Limited (trading as SunRice Australia). The SEEL holder is bound by specific conditions, including that the SEEL holder must act as the 'buyer of last resort' as detailed in the SEEL Service Level Agreement (SLA)[72]. The Board also monitors the performance of its sole export agent, SunRice, in the international rice market via the review of monthly and annual reports from SunRice and engaging an independent consultant to verify the methodology and calculation of an EPP and Freight Scale Advantage (FSA)[72]. This is done to verify that SunRice is meeting the Board's second objective, to ensure the best possible returns from rice sold outside of Australia.

1.3 Ricegrowers Limited (SunRice)

1.3.1 SunRice is the consumer brand and trading name of Ricegrowers Limited and is one of the world's largest rice food companies and a major Australian branded food business. SunRice formed in 1950 when rice growers from the Riverina/Murray region of New South Wales pooled funds to establish a grower owned co-operative and build a rice mill in Leeton. SunRice was corporatised in 2005, listed on the National Stock Exchange (NSX) of Australia in 2007, and transitioned to the Australian Securities Exchange (ASX) in 2019.

1.3.2 The SunRice Group sells branded packaged rice and value-added products as opposed to being a trader of rice as a bulk commodity, comprises 11 businesses, produces over 1100 products over 30 brands, and employs approximately 2000 employees in operations across 9 countries[85].

1.3.3 SunRice buys the significant majority of the rice produced in the Riverina/Murray. It is a vertically integrated company and assists or manages many parts of the supply chain including seed supply, grower services, crop finance and insurance, receivals and milling, marketing and by-product value add, among others.

1.3.4 SunRice has developed and manages diversified supply chains around the world, including rice processing mills in Vietnam and California, packaging facilities in Jordan and Papua New Guinea (PNG), in country distribution networks, and sources rice from 12 different countries including Australia[89].

SunRice business structure

1.3.5 Since 2016, SunRice has made significant changes to its capital structure by listing on the ASX in 2019. The company was previously listed on the NSX in 2007. This change in 2019 was aimed at taking advantage of investor appetite for Australian consumer goods and agri-stocks as well as enabling SunRice to raise the capital required to implement its five-year growth strategy[83].

1.3.6 SunRice retained a similar dual-share class structure introduced for its listing on the NSX. This structure includes A Class and B Class shares. A Class shareholders have voting control of the company and rights to the amount paid up on the A class share on redemption or winding up of the company, but no rights to distributions or dividends. B Class shareholders have the rights to receive dividends, and only limited voting rights[83]. The ASX listing removed a previous B Class share ownership restriction (which limited ownership of B Class shares to A Class shareholders) and a 5 per cent shareholding cap to allow anyone to invest in B Class shares (including A Class shareholders) up to a maximum 10 per cent cap. In summary:

- A Class shares can only be held by active rice growers and grant their holders the right to vote on the election of company directors and any changes to the company constitution and therefore provisioning control of the company[83]. A Class shareholders have no right to dividends or distributions and are not quoted on the ASX, however A Class shareholders are capped at five A class shares per person, and must maintain a minimum B Class shareholding of 3,000 shares to retain their A Class shares[90].
- B Class shares can be traded on the ASX and grant their holders the right to receive distributions and dividends but only limited voting rights (restricted to variations of B class holding rights)[83]. During consultation it was noted that growers represented approximately 40 per cent of B class shareholdings, but it was not clear if this figure is based on the number of unique shareholders on the register, or the total shareholding of B class shares.

1.4 Previous reviews of rice vesting

The 1995-96 National Competition Policy review

1.4.1 The 1995-96 NCP review found that the single desk export selling arrangements of the NSW rice industry generated market premiums for the rice industry and a net public benefit. Consequently, the NSW Government agreed that the single desk arrangements would be retained.

1.4.2 The preferred approach, however, was for new arrangements to be established under Commonwealth regulation. As the Federal Government did not agree to establish a single export desk under its authority, the NSW Government at the time extended vesting for six years to 31 January 2004 and scheduled a further review to determine what statutory arrangements should apply in the longer-term.

The 2004-05 review

1.4.3 The 2004-05 review concluded that the single desk export marketing arrangements for rice were continuing to deliver substantial net benefits to the industry and broader community. However, while recommending that the arrangements be retained, it was also recommended that the Board establish rigorous accountability protocols for assessing and communicating to Government and growers SunRice's performance in delivering grower and community benefits.

1.4.4 Despite the 2004-05 review's recommendations, recommendations from the National Competition Council and the Federal Government resulted in NSW partially deregulating the domestic rice market by passing the *Rice Marketing Amendment (Prevention of National Competition Policy Penalties) Act 2005* but opted to retain the single desk for exports[57].

The 2009-10 review

1.4.5 The 2009-10 review did not conclusively argue that the single desk export marketing arrangements were delivering price premiums to growers and broader community benefits. Importantly, however, the review expressed the view that given the domestic market had been deregulated, any costs associated with vesting were likely to be imposed on rice growers rather than Australian rice consumers, and therefore, strong grower support for the arrangement could be interpreted as a proxy for the grower benefits it provides. It further concluded therefore that it is critical that the Board provide growers with enhanced levels of information about prices received so that well-informed choice in relation to the retention or otherwise of vesting can be expressed by growers in future.

1.4.6 This review therefore called for the establishment of stronger accountability arrangements and the development by the Board of performance metrics in relation to each Board objective and a Performance Management Plan regarding its sole export agent (SunRice). It was proposed that these initiatives and the associated performance information would form a key consideration in any decision to continue the present arrangements beyond 2013.

The 2012-13 review

1.4.7 The 2012-13 review concluded that the single desk enabled by vesting continued to deliver price premiums in export markets relative to SunRice competitors selling into those markets. Conflicting arguments were presented to the review though, on balance, it was decided to recommend vesting by the RMB be retained until at least early 2017. The justification for this date was to allow the Board to fulfil its financial commitments

to growers to repay the Growers' Equity Fund[a] without disruption. To better understand the merits of vesting it was recommended that extension beyond early 2017 be subject to a review of performance metrics over the intervening period that provided clear evidence of continued aggregate price premiums in excess of Board costs.

The 2016-17 review

1.4.8 The 2016-17 review found evidence that a price premium exists for NSW rice exports and that part of this premium was derived from sources that benefit from co-ordinated export sales and that vesting provided a way to achieve this. However, there was evidence that vesting arrangements were discouraging the growth and development of the rice industry in Northern NSW. There was strong support for the continuation of vesting within the Riverina/Murray community. Submissions indicated that communities in the Riverina/Murray believe vesting provides widespread benefits, however there were concerns that the governance structure of the Board prevented it from representing the industry in an impartial manner.

1.4.9 This review recommended that, in addition to a further review of rice vesting in 4-years, the Board investigate and implement ways to develop the rice industry outside the Riverina/Murray, particularly in Northern NSW, and, that an independent review of the Board be undertaken, to ensure that any risk of conflict of interest was appropriately addressed.

2016 National Productivity Commission analysis

1.4.10 This analysis isolated two key markets for Australian rice for comparison and adjusted for freight and packaging differentials. The analysis found little or no evidence of a sustained and positive price premium for Australian rice exports in world markets. Premiums received for markets such as New Zealand appear to be offset by lower returns in other markets. This analysis is contested vigorously by southern rice representatives.

NSW Productivity Commission Green and White Papers

1.4.11 These papers did not include a review or analysis of the rice vesting arrangements; however, they did note rice vesting as a topic for further investigation. The papers were released around nine months apart and were based on a literature review and some limited consultation. The papers made the following recommendations:

- Green Paper (Aug 2020) - Remove single-desk rice marketing - Allow the single-desk export arrangement for rice grown in New South Wales to expire

[a] The Grower Equity Rollover Fund was implemented to fund a capital works program for the industry. Growers were levied a 'per tonne' amount annually and repaid after 10 years as a rollover payment. More information can be found on the RMB website.

on 30 June 2022, unless it can be shown that it delivers a net economic benefit to the community.

- White Paper (May 2021) - Review rice vesting export arrangements to determine if they provide a net public benefit - Complete the 2021 Review of Rice Vesting Proclamation. Allow the rice vesting export arrangement to expire unless it is shown to deliver a net public benefit.

1.5 Reason for this Review

1.5.1 The Minister's request for a review is consistent with the statutory review requirements of The Act. In addition to this, the provisions of the *Subordinate Legislation Act 1989* require that no proclamation last longer than five years without review and a public benefit case be made for its renewal. This Act requires such reviews to include public consultation and an assessment of the costs and benefits of making the proclamation.

1.5.2 In addition to this, the Commonwealth government, NSW government, and the other states and territories, are signatories to the Intergovernmental Agreement on Competition and Productivity Enhancing Reforms, as signed in December 2016. This Agreement supports the development of reforms to drive Australia's economic performance and improve living standards. The Parties agree to prioritise reforms at their discretion to remove unnecessary regulatory barriers to competition; boost innovation to provide better outcomes for individuals in the delivery of human services; promote efficient investment in and use of infrastructure; and advance other productivity-enhancing reforms across the country[25]. This agreement builds on the outcomes of previous Council of Australian Governments agreements that supported the NCP and subsequent reforms, including the Competition Principles Agreement.

1.5.3 NCP is not intended to initiate competition for competition's sake but rather to foster competition to boost economic performance and benefits to the community as a whole. It is not sufficient for a review of anti-competitive legislation to examine only narrow economic issues, but rather it should also consider the broader benefits and costs and the overall effect on the community.

1.5.4 The 2016 Intergovernmental Agreement re-affirmed that application of competition principles is subject to a public interest test, such that regulation or government policy or practices should not restrict competition unless:

- the benefits of the regulation outweigh the costs to the whole community; and
- the objective can only be achieved by restricting competition to that extent.

1.5.5 This Review process is distinct and a separate process from the verification process undertaken by the RMB on an annual basis. As outlined in Section 6.2, the aim of the verification process is to monitor the performance of the of the SEEL holder by verifying the methodology and calculation of an EPP and FSA.

1.6 Conduct of the Review

1.6.1 The Act is the principal piece of legislation that regulates the purchase and sale of rice grown in NSW and prohibits the export of NSW rice without the approval of the RMB. For this Review, responsibility for administration of The Act lies with the Minister for Agriculture and Western NSW.

1.6.2 This NSW Government Review was managed and authored by the NSW Department of Primary Industries (DPI), with key input into the economic analysis contributed by the NSW Productivity Commission (NSW PC) in consultation with The Centre for International Economics (CIE).

1.6.3 Prior to the launch of the Review, the NSW PC contacted DPI to advise of their interest in rice vesting and their intention to appoint an independent consultant (selected via competitive tender) to conduct economic analysis into the claimed EPPs achieved by rice vesting. Post review launch, the scope of the analysis was expanded by the NSW PC to include the economic analysis of the net benefits of rice vesting. To ensure a consistent NSW government approach to quantitative analysis and minimise duplication of public resources, it was decided that CIE would conduct independent economic analysis with contribution and input from DPI. The economic analysis prepared by CIE was submitted to DPI as a key input into the Review, with a separate submission provided by the NSW PC.

1.6.4 The Review was officially launched by the DPI on 10 March 2021 at the Rice Research Australia Field Day near Jerilderie NSW, and was attended by more than 150 rice growers and industry stakeholders[17]. The announcement was accompanied by extensive media coverage within both the Riverina/Murray and Northern Rivers regional areas and by several key state rural outlets.

Scope and Terms of Reference

1.6.5 This Review was conducted in line with the requirements set out under the *Subordinate Legislation Act 1989,* as well as the agreement set out in the Intergovernmental Agreement on Competition and Productivity Enhancing Reforms. As such, a strong focus of the review was on assessing whether the benefits of vesting outweigh the costs to the whole community, and that any benefits can only be achieved through restricting competition.

1.6.6 The Review sought to address the following ToR:

a) Do the benefits of rice vesting outweigh the costs to the community as a whole?

b) Are any net benefits (or the majority of these benefits) derived as a result of rice vesting alone?

c) In the absence of rice vesting, would a viable rice export market continue to provide benefits for NSW rice growers?

1.6.7 Within the scope of this Review are potential changes to The Act where such changes are necessary to implement recommendations.

Economic analysis

1.6.8 An important input to this review was economic analysis. The NSW PC selected an independent consultant via competitive tender, with CIE selected to conduct the analysis. The scope of work for the economic analysis was similar to the DPI ToR to ensure that the analysis would be able to inform the NSW PC submission to the rice vesting review.

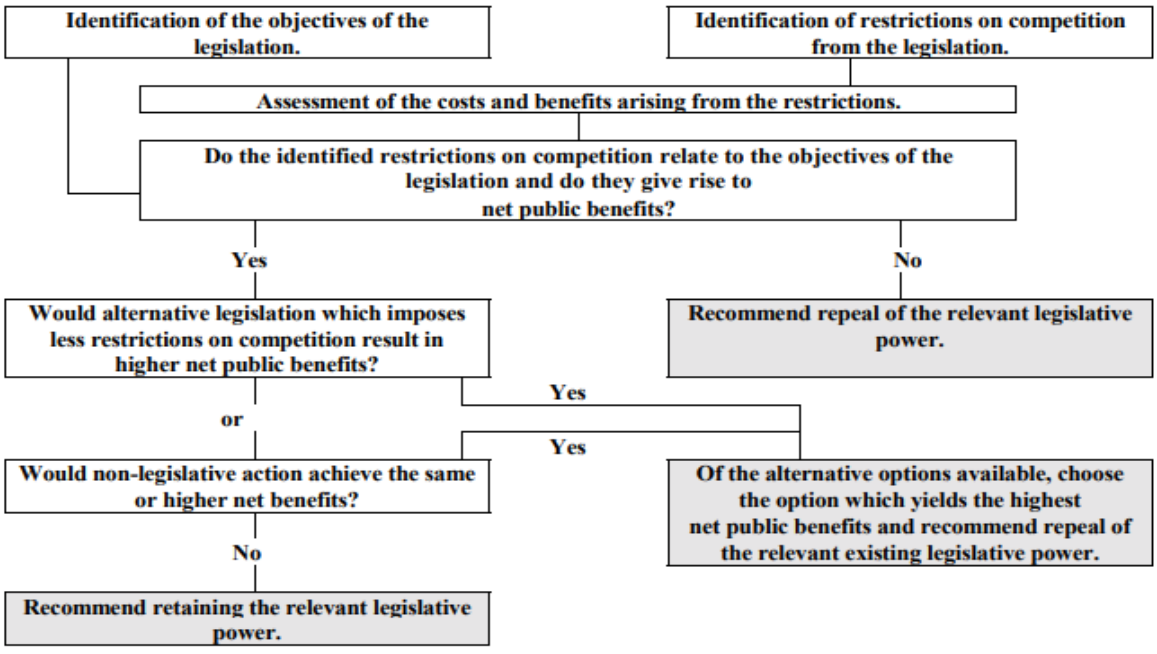
1.6.9 Prior to the appointment of the economic consultant, DPI established a governance framework with the NSW PC so that DPI could provide input and feedback to the economic analysis. The key elements of the framework included feedback on the Scope of Work for the economic analysis, feedback on the consultant tenders, regular meetings with NSW PC and the successful consultant to provide input, DPI coordination of key stakeholder consultation sessions (where COVID travel restrictions permitted) and feedback on the analytical data, methodology, and analysis.

1.6.10 As part of the submission process, DPI was also provided with public submissions, some of which contained detailed economic analysis, although some of these submissions were provided on the proviso of confidentiality. All submissions were also taken into careful consideration alongside the NSW PC and CIE submissions and formed a part of the recommendation and decision-making process. Where necessary, DPI also conducted additional economic analysis to address information gaps, key economic components of the review, and elaborate on other inputs to the review process.

Review decision framework

1.6.11 The process for evaluating the vesting arrangements and making recommendations is demonstrated in Figure 1.1. This was the decision framework used in the Review of the NSW Grain Marketing Act 1991 report and the decision logic remains relevant to today.

Figure 1.1: Review decision framework[58]



1.7 Industry and macroeconomic changes since the last review

Drought and water availability

1.7.1 Australian rice production is highly variable and is significantly impacted by the availability of water (detailed further in Appendix A). The three years from January 2017 to December 2019 were the driest on record for any 36-month period starting in January, when averaged over the Murray-Darling Basin[21]. Water storage levels in the Southern Murray Darling Basin dropped to levels not seen since the Millennium Drought and general security water allocations were extremely limited. The most extreme rainfall deficiencies over a multi-year period occurred in the northern half of NSW[21], which also impacted production in the Northern Rivers rice-growing region.

1.7.2 Consequently, NSW rice production was substantially impacted. The low availability and rising price of irrigation water resulted in production in the southern rice region plummeting, down 92 per cent in the 2020 Crop Year (CY2020) compared to the 10-year moving average. The NSW rice industry recorded the third and second smallest harvests on record in CY2019 and CY2020 respectively. Whilst some farmers were able to maintain rice production, albeit at a reduced capacity, many abandoned rice in favour of less water-intensive crops or ceased production altogether and traded limited water allocations to other water users.

1.7.3 The significantly reduced production and low carry-over tonnages put pressure on domestic prices, regional employment, exports, and seed supplies. SunRice reconfigured its milling operations by converting the Coleambally mill into a ruminant feed mill to service its CopRice operations and consolidated its other milling, packaging and warehouse operations which resulted in the temporary closure of the Deniliquin mill and the scaling back of operations at Leeton.

1.7.4 Favourable seasonal conditions largely returned in time for CY2021, resulting in increased water allocations and lower water prices in the Riverina/Murray, and increased rainfall events in the Northern Rivers. Rice production recovered to an estimated 423 thousand tonnes[b], 69 per cent of the 10-year average[c].

Increased competition and price for water

1.7.5 Irrigated agriculture in the Murray-Darling Basin consumes about 60 per cent of Australia's available water[55]. There have been significant changes in the demand for water in the Murray-Darling Basin in recent years, including increases in the volume of

[b] Based on Riverina/Murray rice production[88], and an estimate of Northern Rivers rice production via consultation.
[c] Based on the 10 year average of paddy rice production from 2010-11 to 2019-20[2]

water used to irrigate cotton in southern NSW and nuts in the NSW Riverina and Murray valleys, Victorian Sunrasyia, and South Australia's Riverland.

1.7.6 ABARES recently estimated changes in water demand in the Southern Murray-Darling Basin between 2002–03 and 2016–17. This analysis indicated that the significant increase in demand for water for cotton and nuts has been offset by a decrease in demand for most other activities, particularly grazing pastures (dairy) and rice[48].

1.7.7 The primary driver of allocation water prices in the southern Murray-Darling Basin is the supply of water allocations[48]. Allocations against entitlements change according to rainfall, inflows into storages, and how much water is already stored.

1.7.8 Southern NSW General Security (GS) water allocations are the main license class used in rice production. The NSW Murray regulated system usually has higher levels of carryover compared to the regulated Murrumbidgee system on average, however the Available Water Determinations (AWD) are usually higher in the Murrumbidgee.

Free-trade agreements

1.7.9 Over the past five years since the last Review, Australia has entered into an additional five Free Trade Agreements (FTA), aimed at reducing or eliminating barriers to international trade and investment[29].

- **The Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) is an FTA between Australia, Brunei Darussalam, Canada, Chile, Japan, Malaysia, Mexico, Peru, New Zealand, Singapore and Vietnam – entered into force on 30 December 2018.**

  What did this mean for Australian rice?

  For the first time since 1995, new quota access for Australia into Japan with a new 6,000 tonne quota from entry into force of the CPTPP. Growing to 8,400 tonnes after 12 years, for Australian rice and rice flour exports. Japan also reduced tariffs on a number of rice preparation products. In addition, there will be improvements to Japan's tendering process for rice. Japan will now offer tenders 6 times a year, including an additional tender in May in line with Australia's growing season.

- **The Australia-Hong Kong FTA (A-HKFTA) - entered into force on 17 January 2020.**

  No new outcomes for Australian rice.

- **The Peru-Australia FTA (PAFTA) - entered into force on 11 February 2020.**

  What did this mean for Australian rice?

  On entry into force of the agreement, Australia will have duty free access of 9,000 tonnes of rice products into Peru, growing to 14,000 tonnes in five years.

- **The Indonesia-Australia Comprehensive Economic Partnership Agreement (IA-CEPA) - entered into force on 5 July 2020.**

  No new outcomes for Australian rice.

- **The Australia-United Kingdom FTA – Signed on the 17 Dec 2021.**

  What does this mean for Australian rice?

  Tariffs on short and medium grain milled rice will be eliminated when the agreement enters into force, while long grain milled rice will receive a thousand tonne duty free quota.

COVID-19-induced trade issues

1.7.10 The outbreak of COVID-19 and the ongoing restrictions that followed, remain a major influence on the Australian and global economy. Uncertainties around the impact of the virus triggered panic-buying and stockpiling of basic food items like rice during early 2020.

1.7.11 Due to the low levels of domestic production in CY2019 and CY2020, the increased Australian retail demand was unable to be filled by domestic supplies. With new domestic supplies of rice not available until after the 2021 autumn-harvested crop is processed, imports have been required to fill some of the short-term gap, leading to an increased reliance on imported rice.

1.7.12 COVID disruptions influenced world trade, including agricultural trade. The USDA estimated that the COVID-19 pandemic reduced global agricultural trade at the aggregate sector level by 5-10 per cent[18] and by significantly more in the non-agricultural sector. The slowdown in trade disrupted shipping patterns, with shipping containers accumulating in North America when they were needed in Asia, and a shortage of new containers being built which contributed to the surge in costs.

1.7.13 Shipping costs began to increase in late 2020 and soared in 2021 with the rebound in world economic activity as countries opened-up after lockdowns. Container rates were significantly higher for outbound routes from China compared to inbound routes. Quotes for shipping containers from China to North Europe increased from $1,700 per 40-foot container in September 2020 to $11,000 in June 2021. By comparison, return voyage containers were $1,600 from North Europe to China.

SunRice listing on the ASX

1.7.14 As detailed in Section 1.3, SunRice was delisted on the NSX and B class shares relisted on the ASX in 2019, with the aim to attract further capital to support its five-year strategic growth strategy.

2. Assessing the benefits and costs of rice vesting policy

2.1 Net benefit

2.1.1 The guiding principle set out in the Competition Policy Agreements is that legislation should not restrict competition unless it can be demonstrated that the benefits of the restriction outweigh the costs to the community as a whole, and the objectives of the legislation can only be achieved by restricting competition.

2.1.2 It should also be noted that this is not dissimilar to standard public service policy making principles, in that a net benefit is a typical public policy test to ensure that these policies do not have an economic cost on society, and that legislation and the allocation of taxpayer funding is made in the best interests of the community it serves.

2.2 Restrictions to competition

2.2.1 Vesting transfers legal ownership of rice to the RMB, which administers an ABL system, and a separate but related SEEL, determining who can trade in rice in both the domestic and export markets. The domestic market operates with multiple ABL holders, mostly small in scale, and while the objective of the domestic regulation is not to limit competition, several stakeholders view it as inhibitive to growth in the domestic market. This issue is addressed in Section 8.5.

2.2.2 The legislation has a core objective of delivering benefits to rice growers through higher returns to growers in export markets than otherwise would be the case without vesting. In principle, the aim is to allow one firm to achieve scale to compete in international markets to demand higher prices and achieve cost efficiencies. The legislative mechanism is to restrict competition in the NSW rice industry by preventing the entry of competitor firms in the export market via the SEEL.

2.2.3 The export market constitutes a significant proportion of the quantity of rice produced and traded in NSW each year. Whilst there are currently 13 ABL holders, SunRice is also the dominant trader in the domestic market. This means that SunRice effectively has a monopoly in the purchase of paddy rice.

2.3 Quantitative and qualitative assessment of the benefits and costs

2.3.1 Like any other restriction on competition, vesting has benefits and costs to the rice industry and the wider NSW community. These benefits and costs need to be identified and assessed in determining whether The Act produces a net public benefit.

Stakeholder views

2.3.2 The claimed benefits and costs cited by stakeholders in submissions and during consultation have been summarised in Chapter 3.

2.3.3 Many stakeholders found it difficult to separate the benefits of vesting from the benefits conveyed by SunRice's existing scale, successful corporate management, and business structure. A key view implied was that many of the benefits that growers currently enjoy would be diminished or removed without vesting.

2.3.4 DPI has examined in greatest detail those benefits and costs that stakeholders claimed would be 'at risk' or 'lost' if vesting and the SEEL were removed. This forms the basis of the qualitative analysis of the review. Other matters that were raised have also been briefly discussed in Chapter 9 of this report.

Economic analysis

2.3.5 The approach to economic analysis can be summarised in the following way:

- Identification of the analytical questions that need to be answered. This is primarily related to the policy question being asked in this Review.
- Stakeholder consultation to build up a robust picture of the industry, the views of stakeholders, and the operation of vesting in the domestic and international rice markets.
- Review of what had been done in the past on this topic including past DPI reviews, National Productivity Commission methodology, industry methods where possible, and the methodology used to analyse other single-desk industries in the past.
- Data collection and analysis, vetting methodologies based on available data, and building a fit for purpose methodology for this review.
- Econometric analysis to test the theory that a single desk provides market power to price discriminate and achieve higher export prices than would otherwise be available.
- Assess whether vesting is delivering FSA that can be passed back to growers and assess the impacts to this if vesting were removed.
- Development of a defendable baseline and counterfactual scenarios of the rice industry in the absence of rice vesting to conduct a Cost Benefit Analysis (CBA).

2.3.6 This methodology is discussed in more detail later in Chapter 7.

2.4 Development of the counterfactual

2.4.1 In addition to assessing net benefit, a key consideration for this Review is whether vesting is required to achieve the identified benefits. In assessing the claimed benefits and costs, it was important to separate those which are dependent on vesting (those that are unique to the vesting arrangements and would be lost under a system with more than one seller) and those that are not unique to vesting and would still exist in

the face of increased competition. This process enables the development of a counterfactual scenario for assessing what commercial environment may exist without the legislation.

2.4.2 The development of this freely competitive scenario is important but is not an easy task as it requires consideration of a situation that does not exist. For this Review, stakeholders were asked to consider the counterfactual when addressing the ToR. Stakeholders were invited to consider and provide commentary on whether a competitive export rice industry would continue to exist and prosper for the NSW rice industry in the absence of vesting.

2.4.3 The DPI utilised the theoretical evidence provided in submissions and through consultation, as well as general observation of systems and relationships within the industry and other grains industries, to help construct the counterfactual. Each of the benefits and costs discussed across the following Chapters includes consideration of the counterfactual by considering the likely scenario in the absence of vesting, the opportunities and challenges that may avail, and the impact on stakeholders.

2.4.4 The quantitative analysis also required consideration of the counterfactual in order to develop scenarios that could be modelled. This is further discussed in Chapter 7.

3. Stakeholder views on vesting

3.1 Stakeholder engagement

3.1.1 Excerpts from submissions and views expressed during consultation have been reflected throughout the report to reinforce the themes and issues discussed in each Chapter. These excerpts have been *italicized in green* and reflected as direct quotes.

Submissions

3.1.2 In seeking stakeholder views on rice vesting, an information paper was released online via the NSW Have Your Say and DPI websites, detailing the ToR and calling for public submissions. An open call for submissions was made to any stakeholders who were interested in contributing to the Review via national and regional media. The DPI also mailed letters and emails of invitation to local councils, companies and community groups who might wish to make a submission, and to all submitters to the previous vesting review in 2016.

3.1.3 The initial closing date for public submissions was 21 July 2021, however an extension to the term for submissions was announced in early July due to the delayed Northern Rivers 2021 rice harvest, in-addition to the COVID-19 travel restrictions that impacted the timeframe for industry consultation. Notification of this extension was communicated to stakeholders via the NSW DPI and Have Your Say website, via email, and by key regional and state media outlets. Public submissions subsequently closed on 15 August 2021.

3.1.4 A total of 181 submissions were received. Of the total submissions received:

- 144 (80 per cent) were from stakeholders either located in the Riverina/Murray region or linked to the Southern NSW rice industry.
- 31 (17 per cent) were from stakeholders either located in the Northern Rivers region or linked to the Northern NSW rice industry.
- 5 (3 per cent) were from stakeholders where their location/affiliation was unknown or not relevant.
- 143 (79 per cent) were rice growers.
- 26 (14 per cent) were from organizations and groups which directly service the NSW rice industry.
- 5 (3 per cent) were from local community groups, councils, and regional business chambers.
- 3 identified as rice consumers.
- 3 were from other State and Federal Government branches.

Targeted consultation

3.1.5 Targeted consultation with stakeholders commenced in June 2021 and was continuous through until mid-October. This consultation consisted of private meetings and public industry forums.

3.1.6 The objective of the consultation was to collect evidence and factual data, develop and validate assumptions, receive and observe the impacts and attitudes of rice growers, industry organisations, and the wider community to the legislation, and to seek input and involvement from those stakeholders who could make a meaningful contribution to the ToR with technical knowledge or subject matter expertise.

3.1.7 DPI led the consultation, which, to avoid duplication, was conducted in conjunction with the NSW PC and their independent consultant CIE. NSW DPI, NSW PC and CIE representatives attended 11 rice-grower and public meetings and hosted ten in-depth meetings with industry organisational bodies, key stakeholder groups, and other government agencies (full consultation schedule detailed in Appendix D).

3.1.8 The consultation timeline and the manner in which consultation took place was unfortunately impacted by restrictions on movements and lockdowns arising from the COVID-19 pandemic and the second wave of infections throughout Eastern Australia in 2021. This disrupted some planned stakeholder meetings and eliminated the opportunity for some face-to-face engagement. Every effort was made by the DPI to facilitate timely face-to-face consultation however, in a limited number of cases where travel restrictions prevented face-to-face meetings, Video Conference was used, or CIE provided feedback to DPI.

3.2 Stakeholder views on vesting

3.2.1 Submissions and consultation indicated that stakeholder support for vesting is strong, but not universal.

Table T3.1: Summary of submissions

Submissions Summary	2016	2021
Number of rice growers	412	475
Number of submissions	249	181
In favour of vesting	93% (231)	77% (139)
Against vesting	7% (17)	22% (39)
Neutral	<1% (1)	1% (2)
Northern Rivers share of against	76% (13)	79% (31)

3.2.2 It is important to note that whilst the DPI welcomed all submissions provided to the Review, it was the quality of the arguments and their relevance to the ToR rather than the quantity received, which most influenced the analysis. The submission process offered the Review a valuable insight into the views of the rice industry and the regional economies in which they operate however, relying heavily on the number of submissions received, as opposed to the evidence presented, can create some issues in the assessment of a complex policy setting. For example, in many cases identical templated submissions were received from multiple members of the same farming business, regional firm, or industry body. Conversely, there were other, single submissions received, which represented the views of multiple individuals or an industry group.

3.2.3 Of the 181 submissions, 110 (60 per cent) were submissions provided utilising a pre-written template to which the submitter signed their name and contact details. While these submissions are helpful to gauge the level of support or otherwise of vesting, these submissions provided little additional information to help assess the vesting arrangements. It should also be noted that there were organised campaigns for stakeholders to provide templated submissions both in favor for and in opposition to the vesting arrangements by respective parties in the two main geographic rice growing regions, which are reflected in the analysis presented.

3.2.4 While DPI did note a majority of stakeholder support for rice vesting in the dominant Southern NSW growing region, the DPI also noted some inconsistencies between the stakeholder feedback and level of grower support for vesting provided in submissions. The DPI received verbal feedback from some growers during formal consultation which is not reflected in the written submissions received. In general, this feedback was not in favour of vesting. These growers actively participated in formal consultation with the DPI but noted their hesitancy to provide submissions based on concerns regarding confidentiality. While it was not possible to consult with all growers and determine the exact level of support or otherwise, the level of opposition to vesting in the Southern NSW growing region is not insignificant.

3.3 Key themes identified from submissions and consultation

Supporters of vesting

3.3.1 Submissions and statements made in consultation with rice growers and others associated with the Southern NSW rice industry indicated that the majority of stakeholders in the region support vesting. This support is based on the perception that vesting provides the best net return to growers and is the most efficient way for the industry to secure, develop and maintain the best markets for NSW rice. Most growers who provided submissions, and who actively participated in consultation, were satisfied with the current regulatory arrangements and expressed a high level of support for SunRice as the holder of the SEEL.

3.3.2 Proponents of vesting argue that the current legislation should be retained as it:

- Facilitates EPPs for NSW-grown rice in the international market, which are passed back to growers (see Chapter 6 and 7 for further information).
- Enables cost efficiencies (economies of scale and scope) in both the supply and marketing chains (see Chapters 4 and 5).
- Provides certainty, reduces risk and provides the option of buyer-of-last-resort (see Section 8.2).
- Supports regional benefits in the form of employment, investment, regional wealth, and community support (see Section 8.3).
- Supports the 'Pure Seed' scheme which maintains strong quality, biosecurity and food safety standards (see Sections 8.6 and 8.8).
- Enables SunRice to oversee the 'paddock to plate' supply chain, ensuring production and processing is optimised to meet market requirements (see Chapter 4).
- Removal of vesting would create credit risk with smaller rice traders operating in the market (see Appendix B).
- Allows farmers to access crop finance and insurance arrangements at competitive market rates (see Appendix B).

3.3.3 Although some proponents of vesting have acknowledged that the legislative arrangements impose modest administrative, compliance, enforcement and efficiency costs, they argue strongly that their benefits far exceed their costs. A general view was that the cost to taxpayers was relatively minor compared to the claimed benefits, such as rice premiums and FSA.

3.3.4 However, during consultation, it was clear that even with the general theme of support for vesting in the Riverina/Murray region, that some growers that supported vesting also had concerns about the operation of aspects of the marketing and production arrangements, such as:

- Allocation of contracts, including the type and number of contracts offered (eg. fixed price contracts), the varieties made available in each season, and often the price information which is often made late in the season and impacts farm decision making (see Chapter 4 and 8).
- Delivery site varietal restrictions which limit farm management options (Chapter 8).
- On farm production decisions, including the seeding rate, can be impacted by marketing contracts (Chapter 8).
- Indicative pool prices, including varietal premiums and discounts, are announced late in the year and growers would like earlier indicators to enable farm decision making including what crops they will grow (see Chapter 4).
- There is limited visibility over how the price is derived, such as the transparency of the actual costs applied to the pool and the lack of a price discovery mechanism available in many other industries (see Chapter 4).

- Concerns over the inclusion of 'wash out' clauses in contracts, where the grower may be obliged to pay a wash out for delivering below district average yield thresholds on area contracts.

Opponents of vesting

3.3.5 A smaller number of stakeholders are not supportive of vesting. The majority of these stakeholders are associated with the Northern NSW rice industry, where there was unanimous opposition to rice vesting and more than double the submissions from this region being received compared to the 2016 review. However, there is also an increased number of growers located in the Riverina/Murray region who also oppose the current regulatory arrangements.

3.3.6 Opponents of vesting argue that the current legislation should be removed because it is:

- Restricting the growth of the Northern Rivers rice industry (See Section 8.10).
- Unnecessary to maintain a dominant position in the Australian rice market.
- Preventing growers from accessing alternative marketing options and more competitive pricing for rice (see Chapter 6 and Section 8.1).
- Providing little incentive for the SEEL holder to reduce supply chain costs in the lack of competition, directly impacting growers (see Chapter 4).
- Limiting market diversification and risk management strategies (see Section 8.4).
- Limiting the ability of rice to compete with other commodities for land or water resources, driving some growers to limit the amount of rice produced or exit the industry (see chapter 4.3).
- Enabling the SEEL holder to influence many aspects of rice farming businesses, which are not always in the interest of the individual growers (see Sections 7.2 and 8.5).
- Restricting growth of the domestic market through other mechanisms such as the control of seed and restrictions of on-farm storage of seed (see Sections 8.5 and 9.2).
- Creating the perception that the rice marketing activities of ABL holders are visible to the SEEL holder through the ABL applications process which includes disclosure of financial information, and the annual ABL audit process conducted by the RMB who maintain two dual RMB/SunRice director positions (see Section 1.2, 8.5 and 9.1).

3.4 Considering fit-for-purpose policy

3.4.1 As outlined in Chapter 1, the vesting of many primary products in Australia was historically established with the aim in export markets to:

- Enable agricultural industries to take advantage of market opportunities which were unable to be exploited by private exporters acting independently; and

- Provide primary producers with the power to counter world market conditions which depress or distort commodity prices.

The rationale was based on the principle that there was an existing market failure, however in recent years other claimed benefits have also been used to justify the continuation of vesting. For NSW rice specifically, organised marketing has existed since the establishment of the RMB in 1928.

3.4.2 It is also recognised that the production of rice both domestically and globally, as well as the marketing arrangements in which the NSW rice industry operates, is different to that when The Act was established. Some of the macro policy changes that have occurred include:

- Foundation of the World Trade Organisation (WTO) in 1995, with Australia being a founding member of the organisation.
- NCP was endorsed by the Council of Australian Governments (COAG) in 1994.
- A number of FTA's have been ratified (see Chapter 1).
- Reform of domestic rice market arrangements in 2006 (see Chapter 8.5).
- Significant reform of all agricultural commodity statutory marketing arrangements, including dismantling of almost all forms of economic regulation such as vesting.
- The Intergovernmental Agreement on Competition and Productivity-Enhancing Reforms was agreed and signed by NSW in 2016.
- Development of core infrastructure for the NSW rice industry with the finalisation of the Grower Equity Rollover Scheme in 2017.
- Water market reforms that have been ongoing post key initiatives of the development of the *Water Act 2007* and the release of the Murray Darling Basin Plan in 2012.

3.4.3 One theme that emerged in some submissions, but more broadly during consultation, was the view that if vesting is working, then it should be left alone. Some stakeholders noted that they preferred to continue vesting rather than risk a deregulated rice market. In addition, there were some growers who were keen for DPI to understand and appreciate the history of vesting and its influence in assisting the industry to develop to the point that it has.

3.4.4 Domestic and global agricultural and agribusiness markets are constantly changing and evolving. As such, it is necessary that governments regularly review and re-evaluate the regulatory operating environment in which agricultural industries operate to ensure that they are appropriate in the current, sophisticated marketing environment. It is important to acknowledge that the environment in which the rice industry operates is dynamic and constantly evolving, and what was once the best approach to managing an industry may no longer be the most fit for purpose policy setting.

3.4.5 Whilst it is not the intent of this Review to analyse the development of the rice marketing environment over time, nor assess the benefits bestowed by vesting in prior marketing environments, it is evident that the conditions facing our agricultural industries today are entirely different to those that have existed in the past. Australian

agricultural industries are deeply integrated into global markets and individual producers are keenly attuned to the needs of those markets. There are many trading and advisory firms, including government and industry-owned organisations, assisting primary producers to access premiums export markets and providing high levels of transparency of pricing and consumer requirements.

3.5 Analysis of the issues

3.5.1 The following Chapters include the issues that were identified by the DPI as being of greatest importance when considering any changes to rice marketing in NSW. Other secondary issues were noted and have been included in Appendix B.

4. Non-freight scale-related issues

Key points

a) **Non-freight scale efficiencies were the most noted benefits of vesting highlighted by stakeholders.**

b) **Proponents of vesting cite three main outcomes of this benefit:**

- the ability to aggregate supply to manage variable production, which provides security and certainty to purchasers;
- economies of scale in handling, storage, processing, and marketing; and
- assisting to secure their international sourcing arrangements to maintain markets for Australian rice in low production years.

c) **Grower returns are shared in a uniform way in accordance with The Act.**

- Cost pooling may be an advantage to some growers but will disadvantage others.
- The Paddy Pricing Policy documents the policies and procedures applied by SunRice in relation to setting the paddy price but also the costs applied to the pool.
- There is a lack of transparency related to the costs allocated to the pool which is limiting price discovery for growers.

d) **Efficient asset utilisation is important for the industry to manage overhead costs and to maintain a return on investment on specialised industry infrastructure.**

- Highly variable production is impacting efficiencies, with average asset utilisation rates below maximum capacity.
- Under-recovery of costs has resulted in significant losses to the Australian Rice Pool.
- SunRice can, and does, pay more to incentivise rice production to maintain base levels of asset utilisation, and as best as possible meet end market demand in low production years.

e) **Rice production is facing increased competition from other annual crops and permanent plantings for available water.**

- Vesting does not isolate the industry from competition from other commodities.
- Paddy prices for rice must be competitive to retain growers.
- As is the case with any other industry, SunRice must balance the operational efficiency of their assets against a paddy price which needs to offer a competitive return relative to alternative crops.

f) Vesting and the SEEL may be preventing growers from accessing alternative and cheaper marketing options for their rice.

- In the absence of competition, it is difficult to assess whether SunRice is operating in the most cost and resource efficient way possible.

g) While it is evident that vesting has allowed the industry to develop scale to compete in international markets, as well as diversifying their sourcing arrangements, the contemporary rice industry has developed to a level of maturity and sophistication that will enable it to maintain scale efficiencies in the absence of vesting arrangements.

4.0.1 The NSW rice industry is distinct when compared to other NSW grains industries. Total NSW rice production is substantially smaller, largely due to its dependence on irrigation and its geographical limitations within the Riverina/Murray and Northern Rivers regions. In contrast, other grains industries provide a much larger and geographically diverse supply base and are characterised by a mix of both dryland and irrigated enterprises.

4.0.2 The need to find strategies to deal with the inherent variability of rice production is becoming progressively more important over-time, particularly in response to water reform policy under the Murray-Darling Basin Plan and an increasingly variable climate. Australia has one of the most variable climates in the world, which means that the rice industry must find ways of operating in and managing this paradigm of variability. It is likely that this instability will continue in the future.

4.0.3 Because of the smaller tonnages involved and the reduced reliability of supply, proponents of vesting argue that the collective marketing arrangement helps the industry achieve the scale required for Australian rice to successfully compete in international markets and maintain efficient use of assets.

"Given 80% of NSW rice is exported, vesting has provided SunRice with the opportunity to grow to, and operate at, a scale that might not have been attained if vesting had not existed".

4.0.4 NB: the issue of economy of scale in freight (i.e. FSA) is addressed in Chapter 5.

4.1 Certainty and continuity of supply

4.1.1 Proponents of vesting argue that SunRice's dependability as a supplier is a major benefit to the industry as it helps to reduce market risk by providing certainty and continuity of product in an industry where supply is highly variable.

"NSW's rice exports are distinguished not by price but by quality and SunRice's dependability as a supplier".

"The certainty provided by the current vesting and SEEL arrangements helps SunRice to manage the storage of NSW-grown rice over time, and access alternative sources of supply when crop production is extremely low".

Managing risk

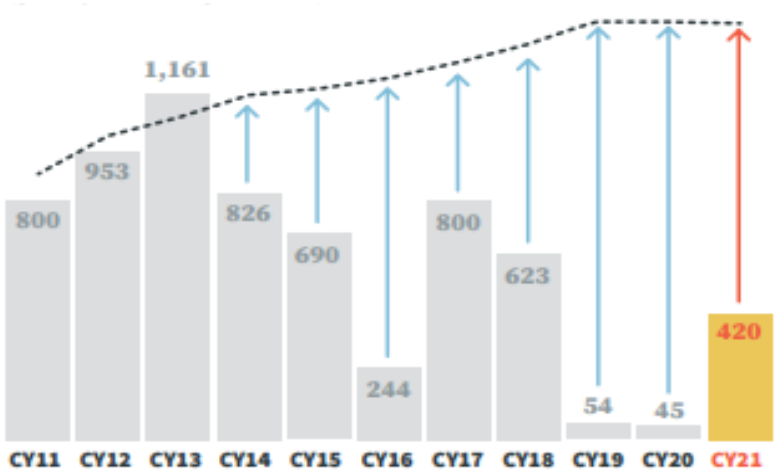
4.1.2 The development of industry scale, which many submissions attribute to vesting, helps the rice industry manage risk both at an individual farm level by minimising marketing risk through the buyer-of-last-resort (examined further in Section 8.2), and at an industry level, by aggregating output which can help smooth out seasonal supply volatility. In addition, the structure also provides SunRice and the RMB visibility over the supply chain, which can help SunRice manage many of its own commercial risks. Feedback received cited that SunRice's control over their own supply chain assists them to manipulate paddy production, and therefore milled rice and product supply, to best match end market demand and offset some of the risks associated with highly variable domestic production.

"The SEEL and vesting allows SunRice and NSW rice growers to coordinate and manage inventory by strategically supplying to higher value markets and holding back supply to use for carry-over in future seasons".

"Without vesting, the ability of the current holder of the SEEL to manage highly-variable Australian rice production would be substantially less".

4.1.3 There is an unmet demand for Australian rice, which is regularly cited in SunRice annual reports. Recent low water allocation years and the increasing variability of supply has meant that SunRice has increasingly needed to leverage international sourcing arrangements to meet supply shortfalls for its products which cannot be satisfied from the Riverina/Murray alone (see Figure 4.1). This corporate scale has enabled SunRice to expand its presence and sourcing arrangements at an international level. In low Riverina/Murray crop years, SunRice can meet demand by backfilling demand from its international sources, while preserving Riverina/Murray rice to protect existing premium markets.

Figure 4.1: Riverina/Murray paddy supply and global demand for SunRice products (paddy tonne equivalent)[89]



4.1.4 Industry consultation highlighted that certainty and continuity of supply is important to some customers, some of whom may respond to reduced Australian supply from SunRice by switching a portion of their requirement to other suppliers, or alternatively, internationally sourced SunRice product, sometimes at a discount. This is a general characteristic of markets, especially premium markets, and whilst sound business principles will typically dictate consistency and reliability of supply to help meet customer requirements, it is not dependent on vesting.

4.2 Cost and revenue pooling

4.2.1 The primary objective of pooling is to share grower returns in a uniform way, such that the market value of a product is averaged over the course of a pooling period. Underpinning this principle is Section 64 (2) of The Act, which requires that payments for a commodity of the same quality or grade should be made as nearly as possible at a uniform rate. The RMB is allowed to make exceptions to this under Section 64 (3), which is presumably the basis for fixed price contracts being offered. The firm purchasing a differentiated product also distributes costs evenly between pool participants despite growers imparting different supply chain production costs. It is essentially a system where costs and returns are shared. Pools can also act as an insurance against price fluctuations, by factoring in a broader range of market conditions.

4.2.2 Due to the prolonged marketing period of rice which can span more than 12 months for a particular crop, the pool returns to growers and therefore the closing price is not known until well into the following fiscal year and can depend on the size of the crop. As at the beginning of November 2021, SunRice had not yet provided a pool range despite the crop already being planted for CY2022. SunRice cited the volatility of shipping rates and other factors that influence the pool performance for this[89]. SunRice did however open a discrete but undisclosed level of fixed price contracts, which were heavily subscribed during August 2021.

The Paddy Pricing Policy

4.2.3 The Paddy Pricing Policy (PPP)[82] documents the policies and procedures applied by SunRice in relation to the setting of the paddy price as well as detailing the costs applied to the pool. In accordance with Clause 2.4c of the policy, the SunRice Board has discretion and the ability to override the paddy price calculation if it is determined to be in the best interests of the business. Under the PPP, revenue is derived from sales of paddy and milled rice products produced from paddy to both domestic and export customers. Revenues are assigned to the pool based on the actual sales, including sales to SunRice's other divisions[68]. Expenses include, but are not limited to, paddy handling expenses, paddy varietal premiums and discounts, distribution expenses, paddy carryover, sales and marketing expenses, admin expenses, the cost of administering the SEEL, and asset financing charges. A full list of expenses is detailed under Schedule 1 of the PPP[82].

4.2.4 Given SunRice's structure, it has oversight and responsibility for most of the supply-chain costs which, in a competitive market, would normally be incurred by multiple

firms. The costs for a variety of services provided by SunRice are pooled amongst growers, with the general principle being that all growers are charged the same amount per tonne for the same type of rice, regardless of the actual cost of handling their grain. However, there are quality based premiums and discounts that are applied externally to the policy, which may partially offset this cost sharing structure. Due to pooling, the relative profitability of both growing rice in distinct locations, the facilities used to store, and mill paddy rice and the marketing options chosen are all ultimately influenced by SunRice.

Costs allocated to the pool

4.2.5 Despite the PPP and some limited detail about SunRice pool business unit financials, it is evident from consultation and submissions that grower visibility over the storage and milling costs on a per tonnage basis is not clear. The SunRice pool system means that growers plant their crops not knowing what the final price for their rice will be, and although indicative prices are provided (and usually met), they are not guaranteed. In recent years, this model has come under some pressure because of changing water policies and the introduction of other crops into the two rice-producing valleys. Many of these other crops have established futures markets, or alternatively fixed price, swap or forward contract arrangements, which give growers the option to secure a price at sowing time, or spot markets at delivery. During consultation, some growers were critical of this structure, and mentioned improved visibility over potential rice prices or fixed price contracts would help them plan their farm budgets and crop decisions in advance of making planting decisions.

4.2.6 During consultation, one grower noted that the pool had made a significant loss and that he *"had no idea how much his rice was actually worth"*. In addition, most growers could not provide feedback when asked whether the pool costs are allocated fairly and there were numerous comments around the lack of transparency of costs allocated to the pool. Many growers are unaware of the costs associated with preparing and placing their rice in the marketplace and therefore may be unable to accurately assess the benefits from delivering their paddy in a way which incurs a more appropriate set of costs. While the lack of visibility of supply chain costs is not unique to the rice industry, the limited competition for growers to test market prices appears to be increasing scrutiny over these costs. In short, price discovery for rice growers is limited.

"SunRice needs to be consistently reminded by the NSW Government that because it has the NSW single desk licence, it needs to regularly and transparently articulate how those premium benefits from vesting are being returned to growers".

Impact of cost pooling on rice growers

4.2.7 Farmers receive a uniform service at an average price that may or may not match their enterprise requirements. Cost pooling can result in some growers earning a higher return than they would if their costs were not subsidised, in this case, by other growers however, is impossible to quantify this without knowing the actual costs applied to the pool or grower.

4.2.8 No submissions referenced the concept of cost pooling directly however the concept of 'equity for all growers' was noted specifically by some grower submissions and by

other industry organisations. In addition, it was observed by the DPI and reinforced by numerous comments made by southern rice growers during the consultation process, of the 'collective good' that vesting facilitates, which may indicate that many growers are largely supportive of the idea of cross-subsidisation in the industry or have otherwise not given it much thought. In the absence of their own ABL, growers only have a single choice of buyer and therefore they lack clear market signals, the ability to negotiate favourable terms based on scale and/or quality differentials, and the ability to test the market through competitor pricing and reporting.

4.2.9 In addition to the pool or in years where rice volumes are anticipated to be insufficient to effectively operate a pool, SunRice has sought to encourage planting by offering fixed-price contracts to growers. This provides growers with certainty of price and increased confidence to manage the costs of growing rice, including higher water costs. In response to the poor production outlook for CY2020 and to maintain baseline milling operations, SunRice offered growers base fixed-price contracts of $750 per paddy tonne[86], well above the average of $379 over the decade prior and up 50 per cent on the previous incentivised price of $500 per paddy tonne in CY2019.

4.2.10 It is likely that smaller to medium sized rice enterprises benefit from the cost pooling arrangements at the expense of larger rice growers. Larger growers are more likely to be able to generate individual economies of scale than smaller enterprises and thus could source and secure transport, milling and storage facilities at more competitive rates. Conversely, the pooling of long lines of consistent quality rice enables small growers to participate in a large-scale supply chain and share in the benefits of critical mass.

4.2.11 The reality of vesting is that most growers have no choice but to sell through a pool structure due to the requirements conferred under The Act (except for fixed price contracts or rice sold to other ABL holders), whereas growers of other grains have the choice of different buyers and marketing options including, in some cases, through a pool structure.

4.3 Economies of scale

4.3.1 SunRice's vertically integrated industry structure is highlighted by submissions in favour of vesting as one of the key benefits arising from the arrangement. Submissions refer to the 'paddock-to-plate' structure of SunRice and are strongly of the view that vesting and the SEEL enable various economies of scale.

"Our industry, through SunRice, is able to provide growers with the certainty of total supply chain from "paddock to plate".

"The NSW rice industry is relatively small however the efficiencies of scale are important to every aspect of the paddock to plate model that our industry is centred around".

Asset utilisation

4.3.2 Another argument highlighted in submissions is that, given the relative size of the industry, it is only with vesting and the SEEL that SunRice, or any competitor, could maintain the scale required to service the current storage and milling and processing

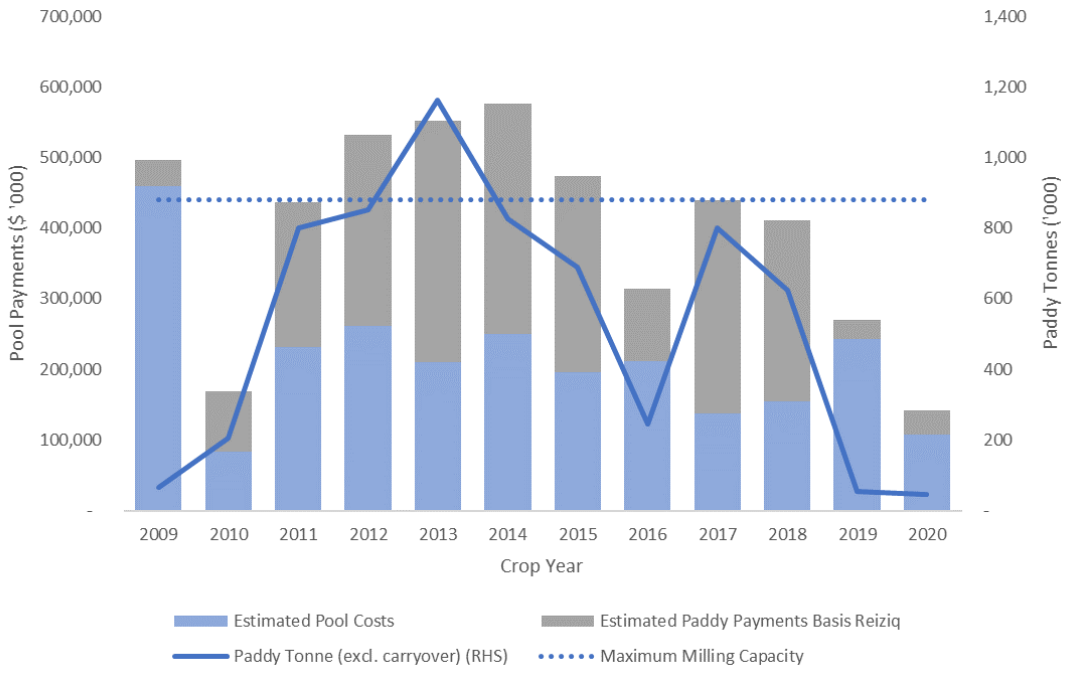
facilities in the Riverina/Murray. In comparison with other grains, rice requires significant investment in specialised drying, storage and processing infrastructure. Because of the level of investment required, efficient asset utilisation is important for managing overhead costs and maintaining a return on this infrastructure investment, which also directly influences the paddy price paid to growers.

"A component of the paddy price that SunRice is able to pay NSW growers is derived from the efficiency of the rice mills that SunRice owns and operates".

"A collective approach to the ownership and utilisation of rice infrastructure means that the associated costs that ultimately impact on the prices growers are paid are contained".

4.3.3 Given the variability of domestic rice production, SunRice's storage and logistics network needs to be flexible to have spare capacity to cope with large production years and generate enough return to cover years of low asset utilisation. Evidence provided to the Review indicates that a NSW crop of approximately 760,000 paddy tonnes is sufficient to support two globally competitively scaled mills operating at reasonably high utilisation rates. Therefore, based on a maximum milling capacity of 880,000 paddy tonnes, SunRice's utilisation rates have varied either side of 100 per cent in CY2012 to CY2014 and 6 per cent and 5 per cent in CY2019 and CY2020 respectively (not accounting for carryover). It is evident that utilisation rates are mostly below maximum capacity (not accounting for carryover), averaging 69 per cent over the last decade (Figure 4.2). As a result, the total pool revenue less profits (and losses), on a per paddy tonne basis, experiences extreme fluctuations from year to year. However, total costs are less volatile. In years of supply shortages, the unit costs applied to the pool increase dramatically reflecting the increasing proportion of overheads versus variable costs borne by the pool. It should be noted that this does not consider carryover stocks which would partially smooth out costs from year to year.

Figure 4.2: SunRice milling asset utilisation and costs[89; 73]



4.3.4 As noted in Section 1.7, in response to poor production in CY2019 SunRice made the decision to reduce their cost base and close the Deniliquin mill and further scale back operations at Leeton in CY2020. SunRice noted that due to the low volume of rice available to be milled, costs were significantly under-recovered in their Australian Rice Pool Business due to the under-utilisation of assets and the necessary high rice prices offered to growers. As a result, losses to the Australian Rice Pool in 2020-21 were just over $22 million[89]. A comparable situation was also reported in 2010-11 and 2016-17, with the Australian Rice Pool making a $22.7 million and $32.5million loss before tax respectively, off the back of lower Riverina/Murray production[69]. These losses are borne by the profit-making segments of the SunRice business model, which despite these cost transfers, has managed to post profits since at least the financial year ending April 2000[89].

4.3.5 Given the pool losses over the last five years, the cost structure of the rice supply chain, and volatility in supply in the Riverina/Murray, this indicates a level of inefficiency in low production years due to high level of overhead costs in the supply chain, although it does allow SunRice to maximise efficiency in high production years. The reality is that SunRice can, and does, pay more to incentivise rice production to maintain base levels of asset utilisation, and as best as possible meet end market demand in low production years. This situation is not unique to the rice industry and not unique to the vesting arrangements. It is a feature of the Australian agricultural landscape that, due to climate variability, processors need to manage volatility in supply.

4.3.6 SunRice's business, based on a dual class share structure, is focused on improving value for both A and B Class shareholders in the form of returns for growers from the Australian Rice Pool and dividends for shareholders from the other profit generating parts of the business.

4.3.7 Some submitters view this structure as beneficial, with the company afforded the ability to absorb under-recovery of overheads in the form of losses in the Australian Rice Pool whilst at the same time, maintaining assets for future use.

"The Australian Rice Pool Business shares its overheads with other profit businesses within the SunRice Group, which demonstrates the benefit of a multi-faceted business of scale holding the SEEL".

"By possessing the SEEL as it can under vesting, SunRice is better able to provide the scale to offer enhanced paddy prices in years of very highwater opportunity cost, at a cost of millions to tens of millions of dollars, that stabilises Australian paddy supply to some degree".

Although this may be beneficial, this structure is not dependent on vesting.

Resource efficiency

4.3.8 One of the most critical inputs to all rice enterprises is water. The expense and variability of water supply is the largest limiting factor to production and growth of the industry. Growers have a commercial choice in how water is utilised in their farming business, or alternatively traded, and must receive a competitive return for their rice per Megalitre (ML) or they will likely abandon rice in favour of more profitable enterprises.

4.3.9 A number of submissions reference the impact of water reform and declining catchment yields on the rice industry, the inference being that the scale and price premiums afforded by vesting better equip the industry to deal with competition for water resources. There were several submissions which linked operational efficiencies and water implying that, without the vesting arrangements, rice may become less competitive with alternate uses.

"Every aspect of SunRice's operations have to be of the highest operational efficiency to deliver grower returns at a level that farmers make rice a crop of choice".

"SunRice must try to ensure that the rice return per ML is greater than the market value of that water".

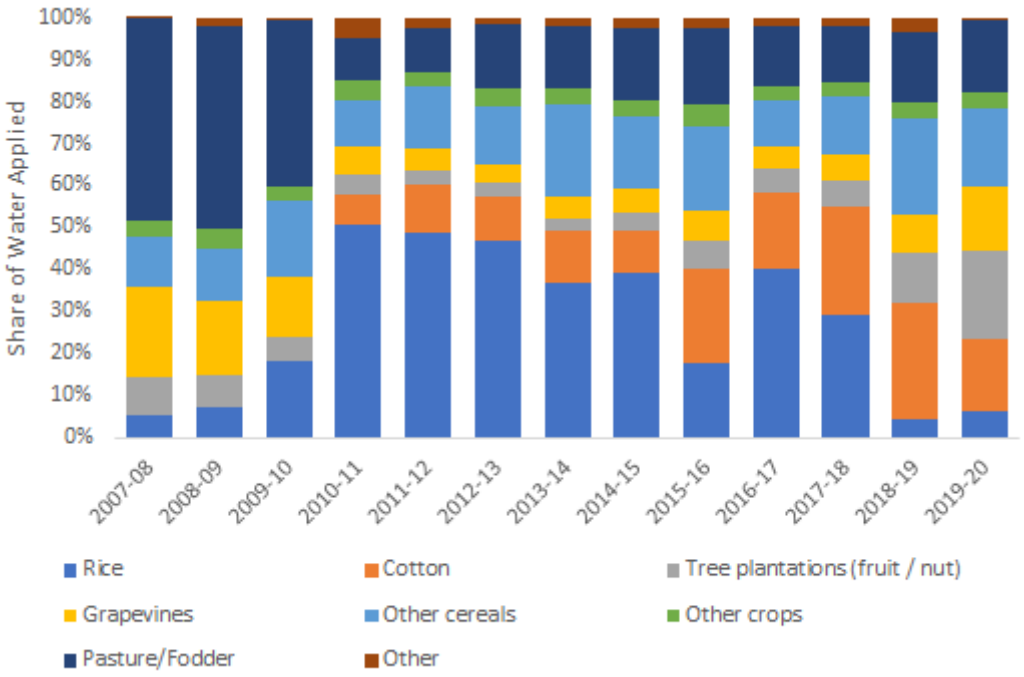
4.3.10 However, some submissions from growers emphasised that they feel that farmgate prices are not enough to cover the rising cost of water.

"We feel the industry needs to become more competitive so as we can continue to grow rice. With the price of water being what it is, it doesn't lean towards growing rice every year, which we would ideally like to do".

"Water pricing has become a significant factor in the viability of rice growing. With much smaller paddy production, vesting is having a negative effect on the price of rice to the grower".

4.3.11 The combined effects of water reform and declining catchment yields are issues affecting many southern NSW irrigators. Rice production has faced increased competition for available water, with cotton and tree crops demonstrating the strongest growth at the expense of rice production (Figure 4.3).

Figure 4.3: Share of water use in the Riverina/Murray by commodity[6]



4.3.12 During consultation, the DPI also heard from growers who suggested that they continued to grow rice for several reasons, beyond the financial returns on offer, including:

- an historical connection to the rice industry,
- to support the industry which has provided employment and community benefits over many decades,
- the suitability of rice in their farming system, including crop rotations, and
- inhibitive capital costs to transition to another industry, among others.

4.3.13 Alternatively, it was also suggested during consultation that the younger generation coming back onto the farm are looking for higher financial returns per Megalitre for their farming business as a primary decision driver, with cotton often mentioned as a key alternate summer cropping option.

4.3.14 Vesting does not isolate the rice industry from competition from other commodities, and, due to the lack of competition and competitive pricing, may be actually preventing the industry from being able to successfully compete with other commodities. The industry must offer farmers returns which are competitive with the returns available from alternative uses of their land and water. In this environment SunRice must balance the operational efficiency of their assets against a paddy price which needs to offer a competitive return relative to alternative crops. In this respect, notwithstanding vesting and the use of a pool as the major marketing mechanism offered to farmers, the rice industry is no different to any other agricultural commodity.

5. Freight scale

Key points

a) **Freight Scale Advantage (FSA) is one of the key benefits cited in submissions by advocates of vesting**

b) **Advocates of vesting argue that the SEEL enables SunRice to minimise freight costs by taking advantage of economies of scale in relation to the transport of NSW-grown rice to the rest of the world.**

c) **FSA is one of the annual key assessments undertaken as part of the SEEL verification process by the RMB**

- FSA is the discount in freight costs estimated in savings from international shipping lines for providing significant volume and relatively stable year-round supply.
- Thus, the FSA benefit calculated and communicated in the RMB Growers Report is not based on actual discounts for the Australia-grown freight task, but rather on the total Australian and international freight task of SunRice.
- FSA is attributable to the scale of this global supply however the international component is independent of vesting which suggests that this reported benefit will likely be maintained in the absence of vesting.

d) **Industry FSA estimates are approximations of possible discounts rather than based on actual data.**

e) **FSA is not dependent on vesting and the ability of SunRice to negotiate freight discounts would remain in the absence of vesting.**

- With the benefit of scale and the ability to provide steady shipping volumes, discounted freight rates can be achieved however in the absence of vesting, SunRice's international shipping volumes are unlikely to be impacted and this benefit would be retained.

5.0.1 Submissions from supporters of vesting argue that vesting delivers the industry a benefit by enabling SunRice, through the SEEL, to earn a "freight advantage" by consolidating consignments, negotiating better rates, and because they are the sole exporter of NSW-grown rice.

"The current vesting arrangements ensure that the NSW rice industry maximises the size or scale for each consignment of export rice".

"SunRice has been able to achieve freight scale advantages that would not have occurred if multiple parties had been exporting NSW rice".

5.0.2 Submissions also claim a direct link between the farmgate price received for their rice and the freight savings achieved by SunRice.

"Freight scale advantages flow onto NSW rice growers because freight costs act to lower the prices paid to growers for their rice – the lower the freight cost, the more SunRice can afford to pay growers".

"Reducing the costs to SunRice of shipping rice directly benefits growers by reducing the cost that must be subtracted from revenues before they are compensated through the pool price"

5.1 Freight rate negotiation

5.1.1 SunRice conduct tenders annually, offering freight on its entire volume of rice shipments, not just its Riverina/Murray rice. The Australian freight task was estimated by SunRice during consultation, to make up approximately 30 per cent of the total freight task in a typical year. This means that the FSA benefit, calculated and communicated in the RMB Growers Report is not based on actual discounts for the Australian-grown rice freight task, rather on the total Australian and international freight task to be shipped. Presumably this also includes imports made by SunRice into Australia, which is a significant part of the SunRice freight task.

5.1.2 Vesting has no impact on the international shipping component as this operates in a completely competitive environment. This suggests that any freight scale benefits achieved are likely to be attributable to SunRice's global footprint and greater negotiating power and, by implication, some of the reported benefit is likely to be maintained in the absence of vesting.

5.2 Annual estimated freight scale advantage

5.2.1 FSA is the discount in freight costs estimated in savings from international shipping lines for providing significant volume and relatively stable year-round supply. The FSA is currently calculated by SunRice and independently verified by a consultant selected by the RMB. FSA estimated discounts are provided by each shipping company used by SunRice, by comparing the actual shipping rates provided to SunRice compared to spot market rates across each of the markets serviced by a specific shipping line on behalf of SunRice. The discounts are verified by reviewing letters from the shipping companies to SunRice estimating the level of discount applied to their freight.

5.2.2 SunRice calculates the estimated industry FSA in dollars per tonne for each shipping line and market by calculating the estimated spot market unit rate in the absence of the discount, and then applying the per cent discount to the estimated spot market freight unit rate. This can then be converted to a total value and aggregated across shipping lines and markets, which can be expressed as:

$$\sum_{n,m} \frac{S \text{ x } R}{(1-S)} \text{ x } t$$

where: FSA = Freight Scale Advantage in $/tonne
R = the discounted rate actually paid by SunRice in $/tonne
S = the saving rate in percentage terms[73]
t = tonnes shipped
n = number of markets
m = number of shipping lines

5.2.3 The estimated FSA is then communicated to the industry and rice growers via the RMB in its Annual Report to Rice Growers[74].

5.2.4 The average annual benefit delivered from the FSA, as reported by the independent verifier, has been estimated between 2012-13 to 2020-21 at $8 million[74]. Figure 5.1 details the annual claimed benefit. The RMB estimates that over this same time, the company has achieved total savings of $73 million in freight costs[75].

Figure 5.1: Reported annual FSA[75; 49]

5.2.5 The RMB Grower Reports show that FSA dollar benefits are highly correlated to the volume exported over the period shown. This demonstrated through the relationship of FSA versus Export volume, indicating a high correlation.

5.2.6 The low benefit outcome for CY2020 is related to low export volumes and a low average FSA across all markets of $15 per tonne. The highest advantage estimated was for 2013 CY at $42 per tonne which corresponded to large export volumes to the Pacific Majors and Pacific Islands. It should be noted that the RMB annual verification reports FSA values differ from the SunRice calculations provided to DPI but are within a reasonable range. These differences may be due to re-calculation by the independent consultant and foreign exchange rate conversions among others.

5.3 Verification of FSA benefit

5.3.1 Previous reviews into rice vesting have accepted FSA as a benefit however, there has been limited discussion of the attribution of the benefit.

5.3.2 DPI was provided with de-identified FSA calculations by key market region, as well as de-identified shipping company letters with the estimates of the freight scale discounts as estimated by the shipping line.

5.3.3 DPI recognises, with the benefit of scale as well as the ability to provide an attractive steady shipping volume, that SunRice can achieve discounted freight rates. While there is also evidence of FSA being directly related to export volumes, the actual level of freight scale discount nominated by the individual shipping lines remained relatively static over the three years to 2019-20 (with some minor differences in 2017-18). Therefore, changes in the calculation of the annual FSA are mostly influenced by the volume of exports SunRice sells into each individual market, particularly over this period.

5.3.4 DPI was unable to independently validate the estimates of the discounts applied by the shipping lines, with the primary reason being the lack of an appropriate or publicly available indicator price. Shipping Australia Limited noted to DPI that there is a commercial reluctance to share data. While there are many public container freight rate indexes, these are almost exclusively for 40-foot containers for major shipping routes which do not typically include Australian routes. In addition, advice from SunRice is that they rely on 20-foot, food grade containers, which are a relatively small component of global shipping volumes, and therefore public data is limited.

5.3.5 In reviewing the freight scale discounts, it was evident that the estimates are made using approximations of possible discounts rather than based on actual data. Furthermore, the comparison to spot rates is potentially overstating the benefits, given in the absence of vesting, it implies that all scale is lost and, as a result, that any rice exported must rely on spot rates for freight.

5.3.6 In reviewing the data supplied, it was also evident that large discounts are claimed on routes with limited export volumes. Although the freight task is calculated on the entire SunRice freight task, this is spread among a number of shipping lines to achieve competitive rates, indicating that discounts are possible even with relatively small volumes as low as 5,000 tonnes on some routes. Whether these small volume discounts have been achieved by leveraging high volume international shipping routes was not detailed in the information provided in the review.

5.3.7 It was also noted in consultation that the Australian freight task represents roughly 30 per cent of the total SunRice shipping freight task. Ultimately, in the absence of vesting, international shipping volumes are unlikely to be impacted significantly and therefore these benefits would remain largely intact for NSW growers. This is further discussed in the quantitative analysis of Chapter 7.

6. Export price premiums

Key points

a) **Advocates of vesting argue that the SEEL enables SunRice to extract higher export prices than would otherwise be the case under a more competitive environment.**

b) **There are numerous factors that influence the export price received by SunRice in each of their key markets.**

- Vesting is just one of these potential factors (this is further tested in Chapter 7).
- Other factors include branding, quality, strategic supply, and pre-and post-sale services for buyers.

c) **Substantial EPPs are claimed each year via the annual RMB verification process and used to justify vesting by the industry. This process has flaws.**

- The choice of price benchmarks is an important factor in testing for and quantifying possible premiums.
- The benchmarks used in the verification process often do not compare like-with-like.
- Retail prices are used as benchmarks in some markets which may not reflect the actual export price received.

d) **DPI market-by-market analysis indicates that NSW rice has higher unweighted rice prices compared to Californian rice in most of our key markets however:**

- These premiums can be explained by multiple factors (as noted above).
- The Australian prices include freight whereas the Californian prices do not.
- When adjusted for volume, the volume-weighted export price for NSW rice was only higher than the price for Californian rice in the Middle East and New Zealand markets. This held true when adjusting Californian export prices for packaging and freight.
- Demand elasticities are higher for Australia than California, indicating that California export prices are less susceptible to changes in supply compared to Australian exports, placing more emphasis on the weighted price results.

e) **There also appears to be a number of explanatory variables that could not be quantified which may be driving these higher prices.**

f) **While this analysis improves on the analysis conducted in 2016, it does not address the key question of attribution of any price premiums, and whether these premiums would remain without vesting. This is addressed in Chapter 7.**

6.0.1 Proponents of vesting and the SEEL noted in submissions that the current legislative arrangements enable SunRice to capture price premiums in export markets when compared to its overseas competitors. Such submissions were overwhelmingly of the view that the single-export desk is an important benefit, largely because they view vesting as facilitating higher export prices than would otherwise be the case.

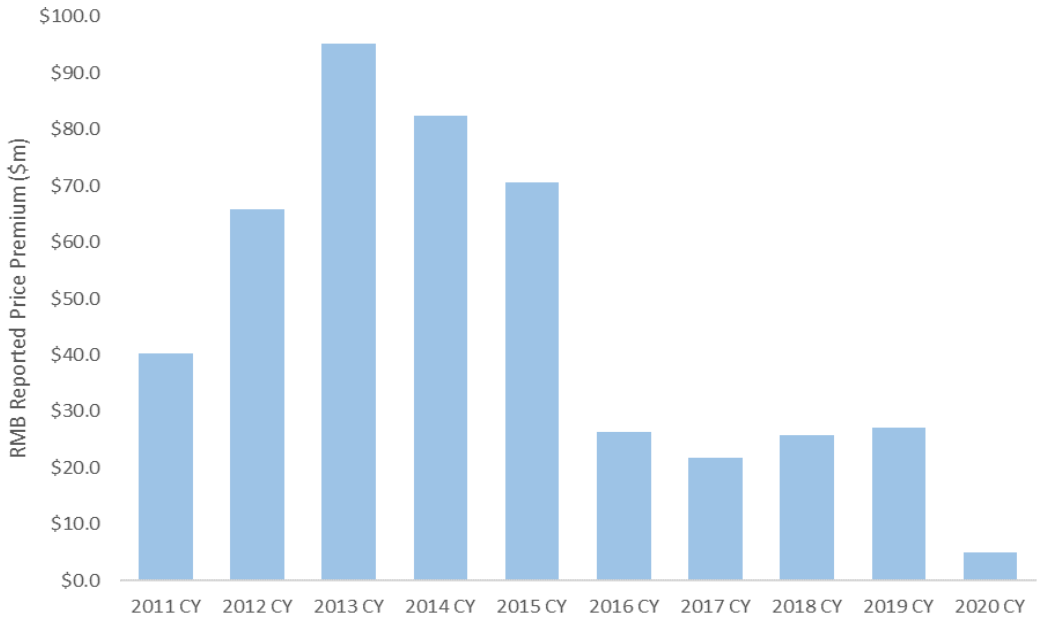
6.0.2 In principle, earning higher prices for export rice is a benefit to Australia and by implication rice growers through the paddy pool payments. While submissions from proponents of vesting claimed that the vesting arrangements achieved price premiums or enabled SunRice to maximise grower returns, only two submissions actually quantified the claimed benefit at an industry level.

"The vesting arrangements and SEEL have assisted SunRice to deliver export price premiums to NSW rice growers totalling more than $455 million over the past nine years, including $101 million in the four years since the last review".

6.0.3 Most stakeholders, including most growers, did not comment specifically on actual price premiums received, but instead focused on the broader package of benefits that a price premium provides to them and the industry.

"These benefits result in premium prices for rice growers and greater economic benefit for regional towns".

Figure 6.1: Reported annual EPPs[75]



6.1 Factors which affect the price received

6.1.1 Claims by the industry that there is a net benefit in maintaining single desk should demonstrate how that premium is created from vesting and the SEEL. It is not sufficient just to demonstrate that a premium exists, because the premium may be due to several factors. Whether this premium is attributable directly to vesting, or other factors needs to be determined.

6.1.2 A firm's ability to extract price premiums depends upon the marketing strategy adopted and the levers that they have available to influence price. There are various factors which affect the price received for a product including market power, market intelligence, quality attributes such as branding, variety and other characteristics (such as environmentally sustainable, organic, clean-and-green), strategic and consistent supply, marketing and other pre-and post-sale services for buyers.

6.1.3 Except for market power, these factors are not dependent on restricting competition or vesting.

6.1.4 The usual rationale for restricting competition through a single desk arrangement has traditionally been to facilitate the exercise of price discrimination or market power to achieve a higher price. Price discrimination premiums result from the ability of a firm to charge customers a different fee for the same rice product, by manipulating supply or demand, or both.

Market power

6.1.4 Market power can be broadly defined as the ability of a firm (or group of firms) to raise and maintain price above the level that would prevail under competition[65]. The greater a firm's ability to manipulate supply, demand, or both to maximise price above marginal cost without losing sales, the greater the firms market power. One way to achieve this is using single desk selling arrangements. The traditional rationale for single desks in Australia has been to allow a commodity to exercise some form of market power in export markets by controlling supply.

6.1.5 The ability of a single desk to exercise market power will be influenced by the level of competition from close substitutes in each market. Whilst SunRice is the sole exporter of rice from Australia there are close substitutes competing with Australian product in each market.

6.1.6 Because SunRice is the only seller of Australian rice, it is able to offer Australian product in international markets without the risk that other Australian exporters will undermine that value. The implied assumption here is that Australian rice is significantly differentiated from international competitor products.

6.1.7 Australian rice does have significant substitutes of short-medium grain rice in international markets, albeit with potentially varying levels of quality attributes, brands and reputation. SunRice has demonstrated the existence of close substitutes by expanding its own international sourcing arrangements, and now sources from 12 different countries aiming to smooth out supply and maintain premium markets for Australian rice[89].

6.1.8 An exporter is much more likely to be able to leverage market power in a market in which they have a substantial share of the market segment, or a compelling competitive advantage. While SunRice is a major exporter of consumer ready, branded product, it remains a relatively small exporter in the context of overall global short and medium grain rice trade when also accounting for bulk rice exports. This would suggest that Australia's capacity to exercise market power based on market share to earn a premium is limited. Over the 4 years to 2019, Australian exports averaged 194 thousand tonnes per annum, compared to the 880 thousand tonnes of short and medium grain rice

exported per annum from the US over this same period[49; 98]. In addition, China has risen from similar export volumes to Australia in 2016 to become a major global exporter of short and medium grain rice.

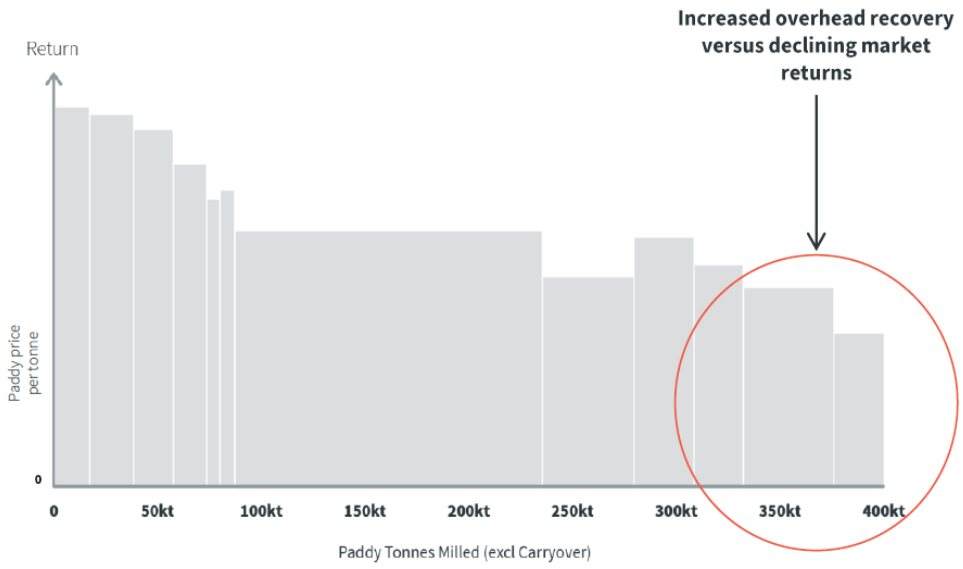
6.1.9 Testing for market power is discussed further in Chapter 7.

Marketing strategy

6.1.10 Stakeholders claim the advantage that the SEEL bestows on SunRice as a single-desk seller means that they can and do allocate the maximum tonnage of Australian rice that they possibly can to the highest paying market before targeting the next best paying market with the maximum tonnage that can be sold in that market and so on until all available rice is sold. This marketing strategy is one that would logically be taken on by any market participant, provided they have a sufficient level of market intelligence. This strategy does not exclude SunRice from competition, and as such they are still required to compete on the basis of price, quality differentials, marketing, promotion, and customer service. By taking this approach they can potentially maximise price premiums across the entire rice pool and thus maximise the average pool price and potential benefit to growers however, this approach is not dependent on vesting.

6.1.11 This marketing strategy has been a regular feature of SunRice communications in recent years. This is represented in the Figure 6.2 below, in which SunRice claim there is an optimal supply balance to maintain both market presence and also maximise paddy returns to growers. The pool price deteriorates as the domestic supply increases and a larger proportion of the crop is marketed into lower value markets.

Figure 6.2: The relative size of premium markets for Australian rice[91]



Importance of Variety

6.1.12 As outlined in Appendix A, an important feature of world rice trade is that it is not homogenous. International consumers have preferences for different varieties and qualities of rice. The international market is largely divided into the *Japonica* and *Indica* rice markets, with both showing different consumer preferences.

6.1.13 The international reference price of rice is normally Thailand's export price of 5 per cent broken milled long grain white rice, which acts as an indicator for the price of long-grain *Indica* rice and the export price of California's f.o.b. at mill medium grain milled rice acts as an indicator for the price of Japonica rice at the international level[62]. In the global market, the prices for both *Japonica* and *Indica* varieties generally move together over the long-term. However, they are treated as largely separate markets in the global rice sector due to significant differences in their market structures.

6.1.14 Adjustment for differences in the price between long and medium grain rice is not feasible as there is considerable market fragmentation between rice varieties and consumers do not substitute one product for the other easily. While some long grain varieties, such as the Thai fragrant Hom Mali rice, grade A or Pakistani basmati super kernel white, typically trade at a premium to medium grain, others trade at a heavy discount. In addition to this, the premiums and discounts to medium grain are not constant.

6.1.15 Upon this basis, comparisons between long grain indicator prices and Australian rice export prices overstate any potential benefits accruing to the Australian rice industry. This is further discussed in Chapter 7.

Quality, branding and product positioning

6.1.16 While some quality attributes are certain, objective, and observable, such as grain size, shape and colour, others are subjective and dependent upon the perceptions of consumers (like promotion, labelling and branding). Evidence provided to the Review indicates that Australian rice is the preferred grain in many of our current key export markets. Stakeholder consultation indicated that this is due to the development of preferred varieties but also due to brand recognition and provenance.

6.1.17 Unlike Australia's other commodity exports such as wheat, Australian rice is not exported in bulk. SunRice mills and packs Australian rice, promoting its own brands wherever possible, with 95 per cent of all the rice exported by SunRice exported as a branded product[81].

6.1.18 This may give SunRice the ability to earn higher export income by establishing a reputation for the quality of its product, reflecting competent marketing, albeit not dependent on a single desk. As its product is differentiated from other rice sold in the world market it can, like any other premium branded product, charge extra to cover additional costs of these activities. Despite the presence of substitutes, Australian rice can be differentiated from supplies from other sources through its branding. In recent years, the Australian food industry has promoted itself as 'clean and green.' The Australian Council of Learned Academies notes that the use of this 'clean and green' language trades simultaneously on multiple meanings and often provides a rationale for a price premium associated with Australian made products[9].

"Vesting has positioned SunRice in a way that has allowed it to be the face of Australian (and therefore NSW) rice in international markets".

"Considering SunRice is a relatively small international player, its international success is credited to the strength of Australian rice as a premium product".

6.1.19 The link between branding and price premiums was noted by submissions and throughout consultation, with many arguing that the opportunity to take rice from a commodity to a branded, differentiated product, assists in obtaining a premium for NSW-grown rice however, this ability is not dependent on vesting. This notion is reflected regularly throughout SunRice investor and industry information. The NSW rice industry is currently largely based on branded, packaged food exports[81], in part to capture higher premiums in markets through brand strength, but also as a value-added product.

"A key reason why SunRice is able to sell at a premium and into higher paying markets is the long-established association of SunRice's brands with the reputation and high quality of NSW-grown rice".

"The branding of NSW rice has added considerable value to the exports. These brands have developed and established strong recognition in key markets and hence achieve a price premium over competitor's products".

6.1.20 Given that SunRice currently has the exclusive right to market 'brand Australia' in the international rice market, it is reasonable to assume that this same quality perception would also be afforded to other exporters of branded Australian rice, in the absence of vesting.

6.1.21 One of the key arguments in support of vesting is that by allowing other exporters to enter the market, the price premium associated with Australian branding would be eroded for all parties, as they would be competing for market share based on similar product branding attributes (i.e. offering a close product substitute). It is noted that feedback from opponents of rice vesting is that they do not expect to compete with SunRice based on quality, scale, product or price attributes, rather they propose to differentiate themselves substantially from the current offering. However, it is likely that the Australian branding would be a key feature of any potential export offering.

"[Withheld for confidentiality purposes] rice can position itself differently from other NSW rice growers, thus allowing for an independent price position".

"Vesting and the SEEL may have afforded SunRice the benefit of exclusivity to develop brand recognition, however they are not required to maintain these features into the future".

6.2 Verifying the export price premium

6.2.1 Verification reports, commissioned annually by the RMB, provide evidence of EPPs relied on by SunRice, the RMB and the RGA. These claim substantial benefits each year, ranging from $5 million in the CY2020 to $95 million in the CY2013.

6.2.2 This annual independent review of the price premiums and FSA was put in place in 2011-12. The EPP is calculated as the difference between the price achieved by SunRice and the benchmark for competitors' price in SunRice's major export markets. The verification process involves an independent consultant appointed by the RMB to review and interrogate and lend support or otherwise to the price premiums and FSA as calculated by SunRice. The verification is a three-step process which involves:

- assessment of the soundness of the methodology adopted by SunRice,

- verification of the assumed values of the inputs that go into the calculations, and
- checking the accuracy of associated calculations[73].

6.2.3 The verification reports were supplied by the RMB to DPI as part of the review. DPI notes that these verification reports did not include all of the information used in the verification process (due to confidentiality).

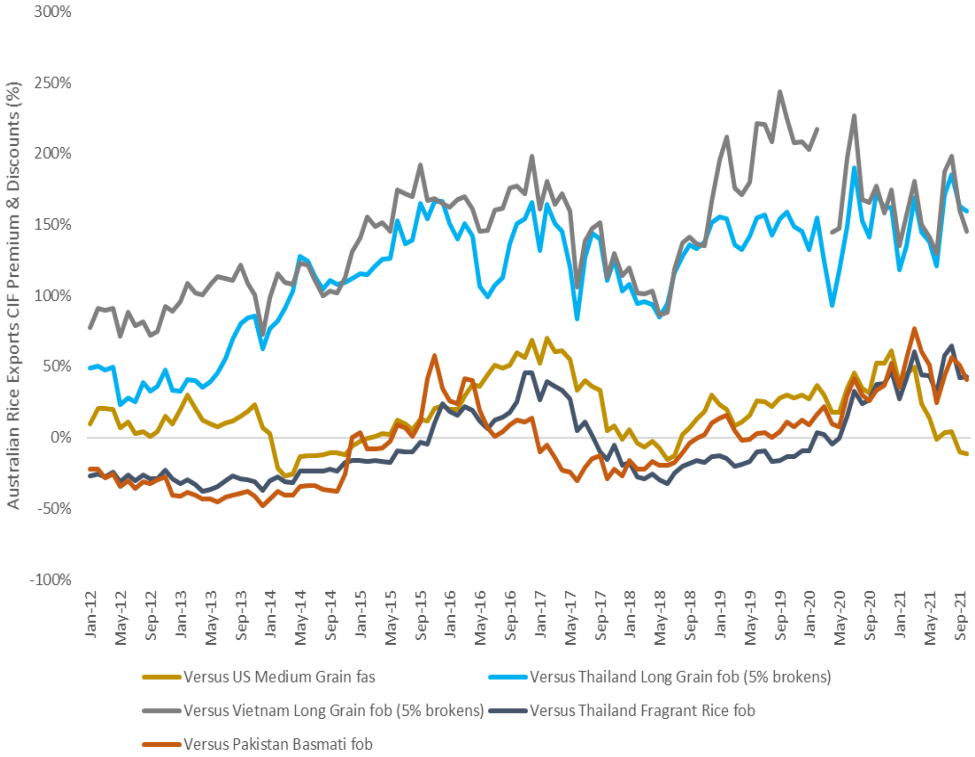
Benchmark prices used in the verification process

6.2.4 The benchmark prices utilised in the verification reports are adjusted for shipping, packaging and freight to port where relevant however, there is no information about the magnitude of these adjustments in the past two reports, nor whether they are updated each year.

6.2.5 The DPI has identified some problems with the manner in which benchmark prices are used in this process:

- **There is limited consideration to the attribution of price differences:** While the object of the RMB is to ensure the highest possible prices are obtained in export markets, it also warrants careful consideration about how a claimed price difference is being derived.
- **Benchmark prices are not chosen by the RMB:** Despite the RMB engaging an independent consultant to verify these calculations, the RMB's consultant relies on advice from SunRice for the benchmark prices in markets. The choice of benchmark price is important. For example, import data from Israel showed that average import prices for Australian rice exceeded USA, but were lower than India in 2018 and 2019[23].
- **Benchmark prices often don't compare like-with-like:** Different benchmarks are used for different market groupings. The verification reports indicate that SunRice chooses benchmarks that are considered competitors in each market. However, NSW medium grain rice is in some cases compared against lower priced, and in most cases non-substitutable product (eg. long grain rice) in the markets that have the highest premiums. In lieu of rice vesting, NSW growers will not switch to grow and market an inferior product which is sold at a lower price. The industry will grow and sell varieties of rice where we have a competitive advantage, likely to be mainly short and medium grain rice suited to a temperate climate and that attracts higher prices in international markets, rather than large volumes of long grain rice (see Figure 6.3).
- **In other markets retail prices are used as benchmarks, with the assumption that premiums on a percentage basis flow back to growers**: While difficult to verify, this assumption has not been examined in the verification reports. Retailers and wholesalers are able to and do charge variable mark-ups for different products and brands, therefore making it impossible to determine how much of any price difference flows through the supply chain back to growers.

Figure 6.3: Australian rice CIF price premium & discounts to other rice indicators[45; 49]



6.2.6 Upon review of the RMB verification reports, some of the above issues were also identified by the independent consultants commissioned by the RMB.

6.2.7 It is also clear that there are a range of factors that can affect the outcome of the price premium analysis, some of which cannot be addressed due to data constraints. While price premium analysis can be useful to understand a firm's competitiveness and market position, the methodology adopted can incur inherent flaws. The methodology used in this Review attempts to mitigate some of these flaws, however this has been supplemented by additional analysis to address the key questions being asked as a part of this review, as detailed in Chapter 7.

6.2.8 During consultation, it was noted that due to the Australian supply shortages, some consumers in certain markets could notice the quality differences with substituted internationally sourced SunRice product. This indicates the presence of some level of intrinsic quality differential built into price premiums.

6.3 Testing the methodology used in the RMB verification process

6.3.1 DPI has conducted its own analysis to test the price premium analysis presented by SunRice. Continuing from the 2016 Rice Vesting Review, the export prices of Australian rice and Californian rice were compared. California is a major producer of medium grain rice, and does so under a competitive export market, with no vesting arrangements. Californian Calrose rice is acknowledged to be a close substitute for Australian Reiziq rice, the most commonly grown Australian variety.

6.3.2 While international rice trade is available from the UN Comtrade database, including trade in Australian rice, DPI was also provided detailed export data from the Australian Border Force (ABF). This allowed DPI to improve on the limitations in the 2016 Review, in which the export markets were not controlled for. Australia and the United States export rice into different markets, and a high proportion of Californian rice goes to lower value markets with lower average prices. It is important to control for this.

6.3.3 This analysis does not consider the benefits that accrue to SunRice under any counterfactual scenario, where multiple companies may be allowed to export.

6.3.4 For this comparison, monthly district-level export data from the U.S. Census Bureau was used, "1006309020 Rice, Semi/wholly Milled, Medium Grain, Nesoi (kg)", and converted to Australian dollars using the Reserve Bank of Australia (RBA) exchange rate data.

Methodology used

6.3.5 DPI used two-sided t-tests were used to compare average export prices of NSW and California rice. This compares the distribution of export prices from Australia and California to each market over a time period, from January 2016 to July 2021. This methodology was first used in the 2016 Rice Vesting Review. While an uncommon method in economic analysis, it is a straightforward way to independently examine the price premiums in submissions by SunRice and the RMB.

6.3.6 Issues remain with this type of analysis, as monthly average prices used below create a bias toward higher prices, which occurs when the export quantities are low. It fails to consider changes in marketing strategies by exporters over time and can have issues with data availability for certain markets. This analysis cannot attribute price differences to vesting, branding, package size or other factors and it is limited in its ability to examine likely price changes in a counterfactual scenario, such as the removal of rice vesting.

6.3.7 Another significant issue with this analysis is that SunRice often exports to these markets from both Australia and California, but DPI did not have data on SunRice's trade from its International Rice business. For example, in FY2021 SunRice revenue was A$109.7 million in the Middle East region from its International Rice business, compared to A$14.9 million in the same region from its Rice Pool business. Therefore, a comparison of Australian and Californian export prices will in part reflect differences in marketing between two business segments of the same company.

6.3.8 While the Australian data is reported as Free-on-board (FOB), which should exclude shipping costs to the market, it matches closely to the in-market gross sales value reported by SunRice in the verification reports. This seems to be consistent with advice from SunRice, indicating that unit prices from the ABF are more likely to be reported as Cost, Insurance and Freight (CIF). The Californian price reported is FOB at port and excludes shipping costs. DPI could not obtain historical shipping costs from Oakland, California to each market, nor from the Port of Melbourne to each market. This means that due to differences in where the unit price is captured for each exporter, the analysis overstates price differences between Australia and California.

Table T6.1: Definitions and data sources

	NSW price	California price
Frequency	Monthly	Monthly
Time period	January 2016 – June 2021	January 2016 – June 2021
Currency	Australian Dollars	US Dollar converted to AUD using RBA exchange rates
Calculation of export prices	Sum of export values / Sum of quantities for each month Check for outliers	Sum of export values / Sum of quantities for each month Check for outliers
Calculation of weighted average export prices	Sum of export values / sum quantity over entire period	Sum of export values / sum quantity over entire period
Calculation of freight & packaging adjusted, weighted average export prices	Sum of export values / sum quantity over entire period	Sum of export values / sum quantity over entire period. Addition of unit packaging and freight estimates to achieve CIF comparison.*
Markets	Pacific Majors Pacific Islands Middle East WTO markets New Zealand EU-27	Pacific Majors Pacific Islands Middle East WTO markets New Zealand EU-27
Export basis	WTO Markets: FOB (Port). All other regions: Cost plus Freight (However reported as FOB in dataset)	FOB (Port)
Source	ABF (2021)	US Census Bureau (2021)

* RMB verification reports

6.3.9 Volume weighted prices were also calculated for each market between January 2016 and June 2021. This was calculated by dividing the total export value to each market by export volumes over the period.

6.3.10 Weighted average prices account for seasonal variation in export volumes and prices and provide a better picture of market demand for Australian and Californian rice over this period.

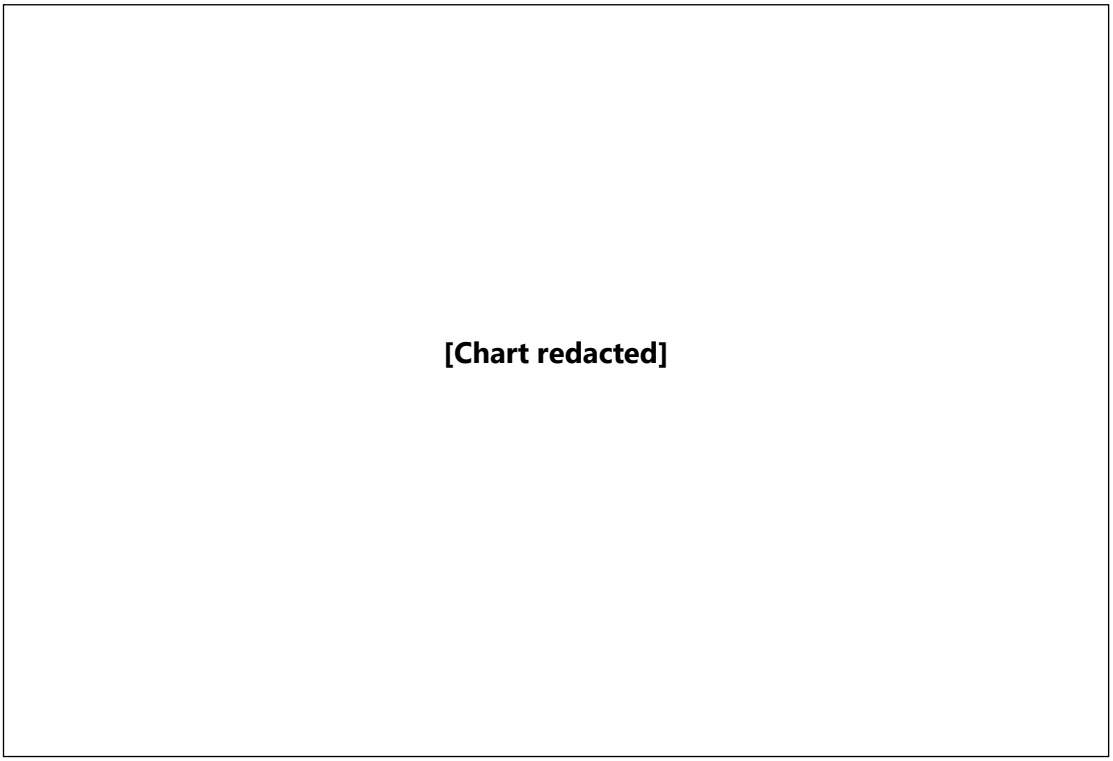
6.3.11 Demand elasticities have been calculated for each market. Demand elasticity is the responsiveness of export quantities to changes in export price. This helps to explain differences between average prices and volume weighted prices, as markets with a higher demand elasticity have a larger difference between simple average export prices and volume-weighted average prices.

6.3.12 A demand elasticity less than –1 indicates that demand for rice falls by more than 1 per cent in response to a 1 per cent increase in prices.

6.4 Market by market analysis

6.4.1 The composition of Australian rice exports has changed over time, with the key changes being a decreased reliance on the Pacific Major markets, and a greater focus on high value markets as shown in Figure 6.3, and further discussed by market grouping below.

Figure 6.4: Australian rice exports by market grouping[5]



Pacific Majors

6.4.2 This market incorporates PNG and the Solomon Islands. SunRice has traditionally been a major exporter to these markets through the SunRice subsidiary Trukai Industries, which imports and packages rice in Lae for the PNG market, and the SolRice subsidiary (trading under the Solrais and Island Sun brands) which imports, distributes and markets rice in the Solomon Islands. During consultation it was noted that imports to

PNG require vitamin enrichment, which has in the past been a barrier to entry to this market.

6.4.3 The Pacific Major markets have traditionally been the largest export market with up to **[redacted]** per cent export market share by volume in the 2012 calendar year[5]. As a result, these markets have been a source of high export premiums for Australia, as detailed in the RMB verification reports; however, SunRice has increasingly served this market using rice from Vietnam or China, to counter low-cost Chinese imports from competitors. Since 2016 SunRice has exported **[redacted]** tonnes of Australian rice to the Pacific Major markets.

6.4.4 Australian rice has a freight advantage in these markets as compared to traditional medium grain competitors such as California, however this has changed recently with emerging lower priced competition. Californian rice has been exported to the Pacific Majors but in much smaller quantities and no rice has been exported to this market since October 2017. It should also be noted that PNG is actively incentivising self-sufficiency in rice supply under the 'PNG Rice Policy 2015-2030[26].

Table T6.2: Pacific majors price comparison

For the period January 2016 to June 2021	Australia	California
Average price (AUD $/tonne)	**[redacted]**	$1,139.89
Observations	55	22
Quantity (tonnes)	**[redacted]**	12,573.17
Volume-weighted price (AUD $/tonne)	**[redacted]**	$1,257.23
Weighted average price, including freight and packaging estimates (AUD $/tonne)	**[redacted]**	$1,381.56
Demand elasticity[d]	-4.9	1.2
Test statistic (Two-sample z-test)	1.12	

6.4.5 The statistical test fails to confirm a price premium for Australian rice over California due to a high variance in average prices for California. Despite the lower average price

[d] Demand elasticity is the change in demand in response to changes in price, calculated using export volumes and export unit values.

of California, the variance in export prices was much higher than for Australia. Weighted average prices for Australia were lower than for California between January 2016 and June 2021. However, California had not served this market since 2017, and the average prices below only cover this period. Australian export prices fell since 2017, reflective of adverse macroeconomic conditions in PNG, efforts to develop a domestic rice industry, and growing competition from China.

6.4.6 The demand elasticity for California is positive, implying consumer demand increases as price increases. This number should be treated with caution, as it may indicate changes in quality or marketing strategies over the period, price changes in substitute goods, or Giffen behaviour by consumers.

6.4.7 Due to the short period that California exported rice to this market, additional statistical tests were done. Comparing NSW exports to California for the period January 2016 to October 2017, the statistical test failed to confirm a price premium for NSW rice after adjusting Californian exports for packaging and shipping

Middle East

6.4.8 The key markets included within this grouping are Saudi Arabia, Israel, Jordan and Lebanon. While these markets are grouped together, there are also some important differences between each market including household incomes, competition, consumer preference and domestic political situations.

6.4.9 The Middle East has become the major market for Australian rice, due to a popular brand (Sunwhite) and quality differentials suited to cuisine in this region. Collectively this grouping represents SunRice's largest export market from 2016 onwards[5].

6.4.10 Israel is SunRice's largest and most consistent rice market within the Middle East, with a mix of large pack sizes and small pack sizes sold under the popular SunWhite brand[5].

6.4.11 Saudi Arabia is acknowledged as a premium market within the region, with competition from Californian rice. It should be noted that California exports bulk rice to Saudi Arabia for packaging in market[24]. This will result in a lower export unit price than Australian rice, which exports packaged product.

6.4.12 SunRice has stated it has the number one medium-grain rice brand in the region, and its market share was reported to be 47 per cent in FY2019[84].

6.4.13 California has exported large quantities to the Middle East, with a total export volume of 874,220 tonnes between January 2016 and June 2021, more than double the exports of Australian rice.

Table T6.3: Middle East price comparison

For the period January 2016 to June 2021	Australia	California
Average price (AUD $/tonne)	**[redacted]**	$1,148.30
Observations	66	66
Quantity (tonnes)	**[redacted]**	874,220.18
Volume-weighted price (AUD $/tonne)	**[redacted]**	$1,126.55
Weighted average price, including freight and packaging estimates (AUD $/tonne)	**[redacted]**	$1,299.23
Demand elasticity	-2.6	-0.8
Test statistic (Two-sample z-test)	8.43	

6.4.14 The statistical comparison of Australian and Californian prices in this market indicated that Australian rice prices were higher than California. Volume-weighted average prices also show higher prices for Australian rice over this period, though Australia appears to have a higher demand elasticity. Californian rice primarily went to Jordan, which had a significantly lower price than Saudi Arabia and Israel.

6.4.15 The difference in market composition contributes to the observed premium as Saudi Arabia is acknowledged as the highest value export market in the region. The level of value-add reflected in the export prices used is another contributing factor of the premium in this market.

6.4.16 Evidence presented to the Review indicates that consumers in this market have distinctive preferences, with Australian rice preferred over Californian rice. This has been supplemented with written evidence suggesting Australian rice attracted a premium. This suggests that the remaining price premium in this market (which is less than **[redacted]** per cent), is most likely attributed to consumer preference for Australian Reiziq rice. See Chapter 7 for further discussion on the attribution of vesting in this market.

WTO markets

6.4.17 For the purpose of Australian rice trade, these markets are generally identified as Japan, Taiwan, and South Korea. Rice is a culturally important staple food in these countries, and each country has large domestic production. Under obligations set by the WTO, these markets are subject to a minimum level of imports, or quota, of rice from other WTO members (and other commodities).

6.4.18 The import arrangements are managed by tender systems, where buyers and sellers bid and offer for Quota through a government managed tender system. Japan has more complex arrangements, where they fill their WTO quota of 767,000 tonnes using a sub-

quota of 100,000 tonnes annually through a Simultaneous Buy Sell (SBS) tender for table rice, and any remaining quota through an Ordinary Market Access (OMA) tender which is restricted to industrial and stockfeed rice uses[100].

6.4.19 WTO markets are the largest export market for Californian rice, with over 1.9 million tonnes to this market between January 2016 and June 2021. Exports to Japan were exclusively bulk or large pack sizes over the period analysed, with Japan the largest destination for Australian rice exports in the grouping, followed by South Korea and Taiwan, respectively[5].

6.4.20 Australia recently obtained an increased Country Specific Quota (CSQ) to the Japanese market as part of the CP-TPP. Australia can now export 6,000 tonnes through the SBS mechanism, generally used for table rice, rising to 8,400 tonnes by 2030. Between 2013 and 2017, Australia made up between 0.4 per cent to 8.0 per cent of Japanese rice imports by volume[100].

Table T6.4: WTO markets price comparison

For the period January 2016 to June 2021	Australia	California
Average price (AUD $/tonne)	**[redacted]**	$1,083.99
Observations	56	66
Quantity (tonnes)	**[redacted]**	1,950,508.99
Volume-weighted price (AUD $/tonne)	**[redacted]**	$1,064.73
Demand elasticity	-3.3	-1.0
Test statistic (Two-sample z-test)	1.01	

6.4.21 The statistical test fails to confirm a price premium for rice exports to WTO markets. Weighted averages are lower for Australia than California. Given that NSW primarily exports short grain rice to WTO markets, the analysis was repeated using California short grain rice exports. Australia has exported at a lower average price than California short grain rice to this market. This market represents a closer representation of similar quality and branding product attributes to Californian rice, with NSW also exporting bulk rice into the Japanese market, albeit in much smaller quantities. NSW rice exports to the main WTO market of Japan were understood to be FOB basis, and therefore an adjustment for packaging and freight is considered unnecessary.

New Zealand

6.4.22 New Zealand is a small rice consumer, with an annual consumption of approximately 55,000 tonnes per annum[64]. As New Zealand does not produce rice, it relies on imports supplied by Thailand, Australia, India and Vietnam[97]. The United States was the sixth-largest supplier of rice to New Zealand in 2020. Californian rice has been a consistent

exporter to New Zealand, but in lower volumes than Australia. Australia and California are the major medium grain rice suppliers to this market, while Thailand is the main supplier of long grain rice.

6.4.23 Australia also enjoys a freight advantage over competitors, which is reflected in the unit price and market share of Australian rice exports compared to Californian rice. Consequently, it is likely that Australian rice is able to command a higher marketing margin, before risking losing market share to competitors with higher freight costs.

6.4.24 New Zealand is one of the highest value rice markets for SunRice, with the highest average export unit price in the analysis conducted. Accordingly, the New Zealand market experienced the least relative decline in Australian rice export sales over the 2017 calendar year to the 2020 calendar year – noting that the export volumes are modest[5].

Table T6.5: New Zealand price comparison

For the period January 2016 to June 2021	Australia	California
Average price (AUD $/tonne)	**[redacted]**	$1,277.34
Observations	52	66
Quantity (tonnes)	**[redacted]**	22,429
Volume-weighted price (AUD $/tonne)	**[redacted]**	$1,277.38
Weighted average price, including freight and packaging estimates (AUD $/tonne)	**[redacted]**	$1,372.70
Demand elasticity	-2.1	1.2
Test statistic (Two-sample z-test)	7.34	

6.4.25 The statistical test shows that the average price of Australian rice exceeds that of California. Australian volume weighted export prices also exceeded Californian volume weighted prices when adjusted for packaging and freight between January 2016 and June 2021. A price premium was detected in this market, with a number of possible contributing factors, one of which could be vesting. Other possible external factors include branding, quality, product positioning and consumer preference. Additionally, New Zealand is a relatively small market in which SunRice has the major market share, which irrespective of vesting it is likely to maintain due to the geographic proximity of this market.

6.4.26 Australia had a higher demand elasticity than California, indicating that Australian rice export prices are more sensitive to export volumes. The demand elasticity for California is positive, implying consumer demand increases as price increases. This number should

be treated with caution, as it may indicate changes in quality or marketing strategies over the period, price changes in substitute goods, or Giffen behaviour by consumers (in which consumer demand increases in response to an increase in prices). See Chapter 7 for further discussion on the attribution of vesting in this market.

Pacific Islands

6.4.27 The Pacific Islands consist of a large number of small markets reliant on imported goods. The larger markets in this grouping include New Caledonia, Vanuatu, Kiribati, Samoa and French Polynesia. Exports to these markets vary, however there were some general themes depending on market. New Caledonia was a bulk, brown rice market while Vanuatu had more variety with large pack sizes being the largest contributor. In contrast French Polynesia was small pack sizes of long grain varieties reflecting economic demographics within this market grouping[5].

6.4.28 Exports to the Pacific Islands have been impacted by declining supply, with these markets experiencing a sharper downturn in export sales than other higher value markets such as the Middle East and New Zealand[5]. This appears to be in line with the documented SunRice marketing strategy of maintaining Australian supply for high value markets first.

6.4.29 Australia and California have exported similar volumes of rice to the region over this period, though Australian exports have decreased substantially. Even within this market grouping, Australia and California generally operate in different countries.

Table T6.6: Pacific Islands price comparison

For the period January 2016 to June 2021	Australia	California
Average price (AUD $/tonne)	**[redacted]**	$809.37
Observations	52	50
Quantity (tonnes)	**[redacted]**	55,341
Volume-weighted price (AUD $/tonne)	**[redacted]**	$1,051.29
Weighted average price, including freight and packaging estimates (AUD $/tonne)	**[redacted]**	$1,217.06
Demand elasticity	-4.9	1.3
Test statistic (Two-sample z-test)	7.17	

6.4.30 The statistical test showed that the average price of Australian rice exceeded that of California in the Pacific Islands. Volume-weighted average prices showed lower prices for Australian rice compared to Californian rice between January 2016 and June 2021,

with demand elasticities indicating Australian export volumes were highly sensitive to price. This market had the lowest average export price for Australia.

6.4.31 The demand elasticity for California is positive, implying consumer demand increases as price increases. This number should be treated with caution, as it may indicate changes in quality or marketing strategies over the period, price changes in substitute goods, or Giffen behaviour by consumers.

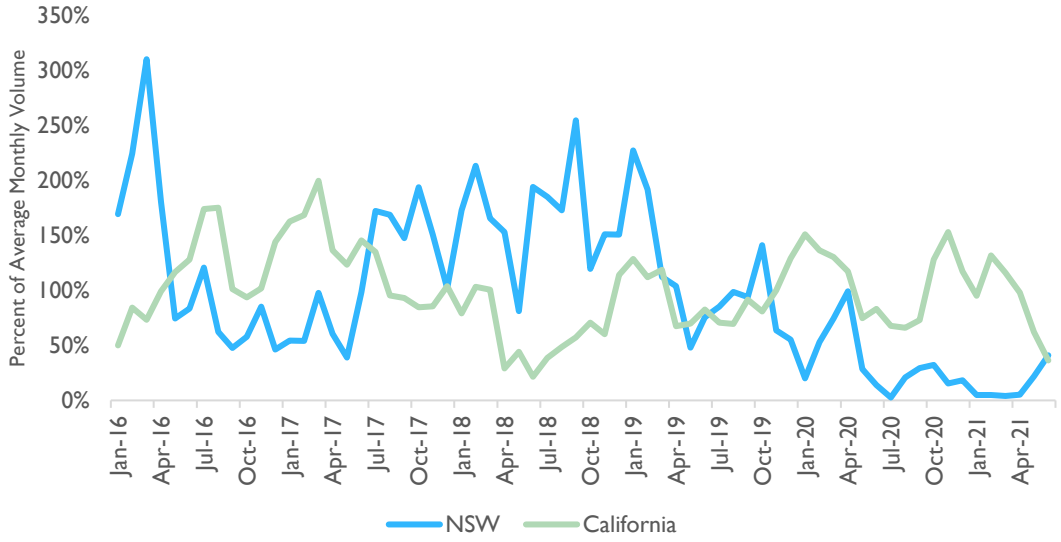
6.5 Export price premium findings

6.5.1 Price premium analysis is conducted on a market-by-market basis using SunRice exports and Californian exports to reduce the influence of differences based on market composition.

6.5.2 Statistical tests for the Middle East, Pacific Islands and New Zealand indicated the unweighted export price of Australian rice exceeded Californian rice, supporting the presence of price premiums. This also held true in the New Zealand and Middle Eastern markets when adjusting the weighted average prices for California for freight and packaging, using information from the RMB verification reports. Robustness checks were conducted to consider a matched sample, inflation-adjusted prices and adjustments for freight and packaging using information from verification reports.

6.5.3 The volume-weighted export price was higher than California for only the Middle East and New Zealand markets. This is an important result, as prices can be distorted by the responsiveness of rice markets to shifts in supply. As per Figure 6.5, the Australian rice industry has a much greater level of variation in supply, and therefore this could be a significant explanatory variable in any unweighted export premiums.

Figure 6.5: Variance in monthly export volumes to Middle East Jan 2016 – June 2021[5; 98]



6.5.4 Across all markets, the price premium between January 2016 and June 2021 was A$64 per tonne based on Australia's export market volumes, substantially lower than reported by the RMB. Over the past 5 financial years, the estimated premium was $39.4 million, compared to the $105.9 million reported by the RMB. Consumer preference for Australian rice over Californian rice is likely to account for the majority of that premium.

6.5.5 Elasticities calculated for these markets show that demand elasticities are higher for Australia than California, indicating that California export prices are less susceptible to changes in supply compared to Australian exports.

6.5.6 This analysis indicates that Australian rice has higher unweighted rice prices in Australia's major regional markets. However, in these markets there also appears to be a number of explanatory variables that could not be quantified which may be driving these higher prices. These include:

- exclusion of freight costs from Californian export data, which could not be independently sourced.
- differing supply chain costs (for example packaging configurations, supply chain margins, marketing, and customer servicing) at the point of import.
- freight advantages for Australian rice in some markets, such as New Zealand
- Targeted product positioning in some markets, such as higher composition in food and retail service, compared to larger scale wholesale markets.
- potential for branding, marketing and consumer preferences to contribute to higher average unit prices,
- higher variability and demand elasticities for Australian rice relative to Californian rice which is potentially impacting unit prices.

6.5.7 While this analysis improves on the analysis conducted in 2016, it does not address the key question of attribution of any price premiums and whether these premiums would remain without vesting. The results for the findings of the New Zealand and Middle Eastern markets are further explored in the quantitative economic analysis conducted by CIE in Chapter 7.

7. CIE Economic analysis

Key points

a) **The Review team engaged with the NSW PC to conduct an economic analysis of the rice vesting arrangements.**

- To ensure a consistent NSW government approach to the review, DPI engaged with the NSW PC led quantitative economic analysis conducted by the CIE forming one key component of the Review.
- The economic analysis was supported by thorough stakeholder consultation, data collection and economic methodology.
- Some data gaps were identified, and additional data was either sourced, or supplemented, with alternate methodologies to answer key economic questions related to the Review's ToR.

b) **CIE tested for market power that may be attributed to rice vesting in two high value Australian rice markets.**

- The econometric approach adopted indicates for the presence of a firm's ability to control supply/demand or both in order to achieve a higher price than would otherwise be the case with competition.
- The results found that all the major exporters to the New Zealand market exhibited similar levels of market power. This was in line with the rational market dynamics for this market, where there is scope for product differentiation due to high market share of the three major rice suppliers into a relatively small market, and in the case of Australia freight proximity advantages.
- For the Saudi Arabian market, the results indicated that the market was perfectly competitive, and that no evidence of market power was evident.

c) **Due to data constraints, CIE were unable to independently analyse the existence or level of FSA, however it was determined these benefits are not solely reliant on the presence of vesting.**

- CIE concluded that the presence of FSA was possible, however these benefits are more attributable to SunRice being a large food multinational, rather than the holder of the SEEL.
- In the absence of vesting, the impact on FSA was estimated to be minimal.

d) **CIE tested a range of policy scenarios to estimate the economic impact against the base case of maintaining vesting**

- An economic model was established to determine the economic impact on the SEEL holder's supply chain from the establishment or growth of alternate supply chains, underpinned by supply and demand elasticities. Treasury standard CBA framework principles were applied to the model results.

- Defendable counterfactuals and assumptions were developed to test within the model, based on extensive stakeholder feedback and consultation.
- The results indicated that removing vesting would provide a net benefit to the rice industry of between $80 to $133 million over 6 years in NPV terms. This result was net of impacts to the existing SunRice supply chain.
- Related, out of model qualitative discussion also concluded that any impact on regional employment in the existing supply chain from the removal of vesting, would be offset by employment in new supply chains.

7.0.1 The CIE was appointed by the NSW PC to conduct quantitative economic analysis. This analysis was delivered to DPI as an input to the Review. The NSW PC also provided a submission based on the CIE analysis.

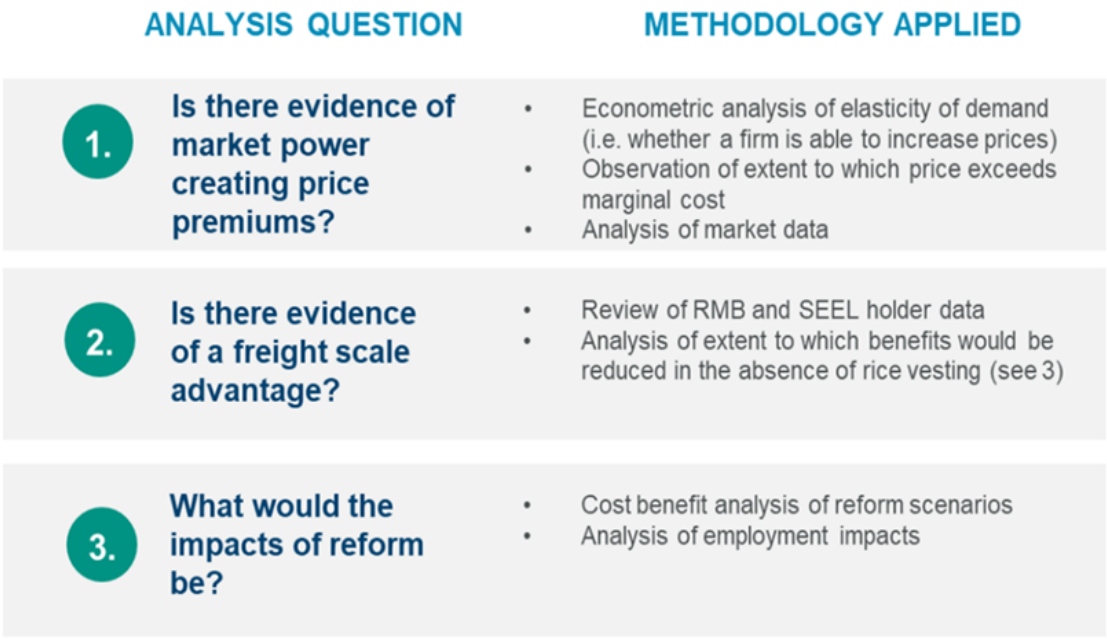
7.0.2 CIE was not provided with access to the submissions collected by DPI due to the privacy arrangements under which they were collected, however where DPI believed there was valuable information to inform the economic analysis, specific permission was sought from the submitter to share their submission. Not all submitters provided permission for their submissions to be shared, including SunRice, the RGA, and the RMB who opted to keep their submissions confidential.

7.0.3 The scope of work requested of CIE was based on the ToR to the Rice Vesting Review and included some key features including the disaggregation of the regional analysis of rice vesting and that the analysis included a CBA which complied with Treasury CBA guidelines. The latter of these inclusions is common place in public policy decision making.

7.0.4 The following is a summary of the methodology, results, and findings of the CIE economic analysis. Where necessary, the exact wording used by CIE or alternatively the NSW PC has been inserted into this report, to retain the context of the analysis. Therefore, DPI attributes the content in this section to CIE or the NSW PC, whether or not directly referenced. Further information about the role, process and appointment of CIE can be found in Chapter 1.

7.1 Analytical overview

Figure 7.1: CIE analysis summary[61]



7.1.1 These approaches improve upon analysis in previous reviews by:

- Testing whether price premiums are attributable to the SEEL holder possessing market power as opposed to other factors, such as branding, service quality and inherent quality and reputation of Australian rice.
- Acknowledging that the holder of the SEEL is a large multi-national company which sources and markets rice from a range of locations, including NSW. For example, the scale and sophistication of such global operations, which are unrelated to holding the SEEL, can confer advantages when it comes to negotiating freight contracts and supplying into domestic and export markets.
- Assessing the economic impact on the NSW community from enabling access to export markets by more than one Australian exporter, compared to retaining rice vesting. This contrasts to previous reviews, which limited their analysis to comparing prices achieved by the SEEL holder to their overseas competitors[61].

7.2 Industry analysis and stakeholder consultation

7.2.1 In order to understand the policy question of rice vesting and develop quantitative analysis, it was important for CIE to understand the legislative instruments that underpin the legislation as well as the firsthand views of vesting from stakeholders. As a result of these stakeholder inputs, CIE was able to build a comprehensive understanding of how the rice vesting legislation interacts with the rice industry and the communities in which rice is grown.

7.2.2 CIE conducted extensive consultation during the review process. In total CIE attended 39 separate meeting and workshops (see Table 7.1), which was coordinated, in most cases, with the DPI where COVID related travel restrictions permitted.

7.2.3 Much of this analysis has been covered in sections of the broader DPI review, due to the coordinated consultation approach; however, the key stakeholder points which were of relevance to the economic analysis have been summarised for each region in the following sections.

Table T7.1: CIE consultation summary

Group	Consultation
Riverina/Murray industry	• 11 meetings/workshops conducted by the RGA which included informal discussions with ricegrowers and industry suppliers before and after these meetings. • 16 discussions with ricegrowers and industry stakeholders of the southern industry outside of the RGA meetings.
Northern Rivers industry	• One formal meeting with the NRRGA and another meeting with the Natural Rice Company. • Discussions with seven other ricegrowers and supply chain stakeholders.
Other	• One formal meeting with the RMB with informal interactions with RMB members who attended each RGA meeting. • One formal meeting with the RGA Central Executive. • Two meetings with SunRice.

Key consultation takeaways – Riverina/Murray region

7.2.4 Water reforms in the Murray Darling Basin, have increased competition for water and as a result rice production has fallen due to the lower Gross Margin (GM) per Megalitre (ML) returns on offer. The share of farm business revenues generated by rice has fallen since prior to water reforms, with rice in some cases becoming an opportunistic crop when water prices and paddy returns permit, rather than the mainstay of many farming businesses.

7.2.5 The majority of growers in the Riverina/Murray were supportive of the rice vesting arrangements and the single export desk. Growers in support of rice vesting were in general terms noted as smaller to medium size producers.

7.2.6 SunRice suppliers and community members were also supportive of rice vesting with significant flow on benefits to regional communities being the main reason. SunRice regularly quoted a figure of $400 million in payments to growers, employees, and suppliers in the regional communities in support of this view. The general assumption provided, was that the majority of these benefits would not exist if vesting was removed.

7.2.7 The reporting of price premiums was highlighted in support of rice vesting, with these premiums being a comparison of exports compared to a benchmark price such as Californian medium grain rice, Thai long grain rice, or retail pricing surveys. During consultation it was noted that the marketing strategy includes key features such as:

a) A transition away from bulk commodity export to branded packaged products

b) Leveraging Brand Australia and clean green credentials

c) Increased customer service levels such as consumer support, information and promotion, and

d) Targeted rice exports into premium markets.

7.2.8 Distorted global rice markets were also cited as a need to retain vesting, due to the heightened sensitivities of rice in terms of food security. A range of trade distortionary practices were raised including single state-owned import desks, tariffs and quotas, export controls among others.

7.2.9 A smaller group of growers in the Riverina/Murray region were opposed to rice vesting, as they felt the vesting arrangements were a constraint on their production, marketing and business development. This group is referred to as the Southern breakaway group herein, and their opposition to vesting was on the basis they believe that they can generate higher farm gate returns by setting up their own supply chains, developing their own brands and differentiating their products in both domestic and international markets. The growers opposed to vesting in this region were, generally of larger size and had higher yields than the district averages.

7.2.10 A number of growers, either in support or opposed to vesting in this region also raised a lack of transparency around the milling and marketing margin, as well as limitations on adequate price signals through the pool payment structure.

Key consultation takeaways – Northern Rivers region

7.2.11 In contrast to the Riverina, all growers and stakeholders consulted within the Northern Rivers were unanimously opposed to rice vesting.

7.2.12 Rice offered land holders in this region an opportunity to increase the productivity of their land by either converting less profitable activities to rice production or utilising low-lying areas that are currently unproductive to grow rice. It was noted that interest in growing rice exceeded the contracts offered by the main rice buyer in the region. These growers were also geographically constrained from delivering rice to the Riverina/Murray, as the transport distances were approximately 1,200 kilometres, making integration with the Southern supply chain uneconomical.

7.2.13 The Northern Rivers region is a summer rainfall dominant growing area, with typically high rainfall. This means that the majority of the rice grown in the region is produced in the absence of irrigation, although some farms do have the ability to supplement the crop with irrigation water if necessary. This key differentiation is leveraged in existing domestic market products. Therefore, Northern Rivers stakeholders view themselves as distinct from the Southern growing region, citing their sustainability credentials, rather than being a direct competitor.

7.2.14 Northern Rivers stakeholders also raised concerns around constraints to their industry development and enabled by vesting legislation. In particular the ABL process provisioned under The Act, provided visibility to the RMB over detailed commercially sensitive information provided through the application and annual crop audit process conducted by the RMB. In turn, the stakeholders raised concerns around perceived

conflicts of interest related to the provision of this information, due to the RMB board composition.

7.2.15 An additional constraint cited by the Northern Rivers and some Riverina/Murray stakeholders was that The Act requires that no seed be retained by anyone who is not an ABL holder. This has allowed the entire industry to become somewhat dependent on the current SEEL holder for the provision of planting seed. In practise this has resulted in situations where growers can either not access the varieties they would like to grow or access the quantities of seed they would like for optimal seeding rates or planned hectares. These stakeholders would like the ability to store seed on farm to better manage their farm operations.

7.2.16 The Northern Rivers rice industry believe that there is an opportunity to export rice which will enable it to diversify its market base and mitigate the risks of operating in a single highly competitive marketplace. The current vesting arrangements constrain them from developing their industry, and unanimously growers and their supply chains in this region would like to be excluded from the rice vesting arrangements.

7.3 Data

7.3.1 The task of quantitively evaluating the rice vesting arrangements was a data intensive exercise with the methodologies adopted for the evaluation, dependent on the available data. Three broad data request groupings were requested from the RMB and SunRice to better understand:

- The details behind the EPP and FSA calculations
- Current supply chain configuration, from farm through to milling to domestic and export markets, and
- Decision-making by the RMB in terms of assessing the performance of the SEEL holder against key performance indicators in the SLA and their understanding of performance by market or market grouping.

7.3.2 Several of the data requests, such as detailed export volumes by partner country and product, and supply chain costs, were not supplied due to concerns around commercial sensitivities. A list of data requested and whether or not supplied is provided in Appendix E, however the key data that was supplied by the RMB and SunRice included:

- RMB briefing note containing background information and board processes relating to vesting
- RMB verification reports for the years 2012-13 to 2019-20, noting that the last two reports did not contain data tables referred to in the reports.
- FSA calculations for the CY2016 through to CY2019 by market, noting that these calculations were provided in USD, and were not directly comparable to the reported RMB figures.
- Industry stock levels, noting this data did not distinguish by new season and carryover stocks.

Alternative data sources

7.3.3 A range of other data sources were accessed during this evaluation as shown in Table Appendix E. Detailed export data was obtained via the ABF, with all but the ABF data being in the public domain.

7.3.4 Overall, despite the gaps (outlined below), the data accessed is comprehensive and provides a much more granular understanding of the industry than that available to previous reviews. This provides a high level of confidence in the robustness of the analysis completed. In particular, the ABF data provided detailed export volumes by partner country and product[61].

Data gaps

7.3.5 RMB rice crop statistics were incomplete for the Northern Rivers region in recent years and ABS data proved unreliable outside 2015-16 (the Agricultural Census). Best estimates for the Northern Rivers were developed using information gathered from the consultation.

7.3.6 Estimates provided by SunRice on FSA were not able to be independently verified.

7.3.7 Costs attributable to the Growers' Pool and rice marketing was requested from SunRice but was not provided. This limited the econometric methods that could be used to test whether rice vesting delivers price premiums[61].

7.4 Testing for the presence of market power

7.4.1 A key rationale for maintaining an export-single desk is the ability to manipulate sales across markets to increase average export prices above those that would be possible without the single desk, otherwise known as 'market power'. Market power generally refers to the ability of a firm(s) to manipulate the level of supply, demand or both, to achieve a higher price than would otherwise prevail available under competition.

7.4.2 Several methods, including testing of export price comparisons, demand elasticities and observations of market behaviour were applied to assess whether the SEEL holder possesses market power. None provided evidence that the SEEL holder possesses market power that is delivering higher prices for NSW rice exports than would be the case without rice vesting[61].

Marginal cost or average variable costs

7.4.3 Generally, a supplier's market power is expressed by the extent to which the commodity's price exceeds the supplier's marginal cost of production. As a firm's marginal cost is often not known, an alternative is to substitute average variable cost (that is, the total variable cost per unit of output)[61].

7.4.4 In the absence of data on the SEEL holder's costs, it was not possible to accurately conclude whether export returns or growers pool revenue were higher than the marginal or average variable cost to deliver rice for export[61].

7.5 Estimation of elasticity of demand

7.5.1 Another indicator of market power that has been widely used in the context of international trade has been the inverse elasticity of demand. The inverse elasticity measures how much the import price of a product will change if the quantity in supply changes. The higher the inverse elasticity of demand, the greater the market power of a firm, considering supply from other firms. The residual inverse elasticity of demand can be estimated using simple econometrics, the details of which are provided in the CIE report.

7.5.2 The approach is sensitive to data frequency, continuity, and quality. This confined the analysis to:

- **New Zealand**: which is a long-standing market of NSW rice and had high quality data available. This analysis also included the United States, Thailand and India, with the latter two being long grain suppliers into this market.
- **Saudi Arabia**: recognised as a premium market for NSW rice and has been serviced even in times of low supply. The data available was of lower quality than for the New Zealand analysis. The competitors included in this analysis were India and the United States.

7.5.3 For Saudi Arabia, the results suggested a perfectly competitive market (i.e. no market power). This could be explained by the relatively low market share of Australian rice in this market, which occupies approximately 2 per cent of the market. It was noted that although Australian rice is recognised as a premium brand, the demand for medium grain rice may be more elastic relative to long grain rice which is a staple in Saudi Arabian cuisine.

7.5.4 For New Zealand, the results suggested that there was imperfect competition in the New Zealand market and evidence of market power as indicated by the inverse elasticity of demand results for Australia, Thailand and the United States, but not for India. Of these three exporters, the level of market power followed the same order as the market share for each exporter with Australia having the highest and the United States the lowest. These results are consistent and intuitive in that:

a) Australia, United States and Thailand account for 60 per cent of New Zealand's rice market,

b) Imports of medium grain rice from the United States and Australia are essential to maintaining a supply of medium grain rice in the New Zealand market,

c) Australia enjoys a much higher market share that the United States, attributable to an established market position with retailers and food service, as well as a closer proximity and subsequent freight advantage.

d) Thailand operates as the majority supplier of long grain rice and enjoys a significant market presence.

7.5.5 The econometric findings are consistent with observations of market behaviour. The SEEL holder is subject to a range of market forces, including competition from the US and lower-cost medium-grain rice from Egypt. In such a dynamic environment, the SEEL holder uses branding, year-round supply and market positioning to target premium

markets, rather than price discrimination, to increase average returns across all markets[61].

7.6 Evaluation – Rice model and Cost Benefit Analysis

Approach to benefits and costs

7.6.1 As a part of the DPI ToR, there was a strong focus on how the rice industry, and particularly the export market, would be impacted in the absence of rice vesting which is referred to as the counterfactual. Previous analysis focused on the existence of EPPs and FSA. The approach taken by CIE was to quantify what would happen to export prices and FSA for different supply chains, given the evaluation options and the scenarios that were established.

7.6.2 This potential impact depends on several factors:

- The quantity of new product that is exported by market or market grouping, relative to existing supply of NSW rice but also medium-grain suppliers (including US product),
- The placement of this product in terms of branding and other attributes, and how consumers respond in terms of volumes and prices paid relative to the existing profile in the market, and
- How these existing players respond to the increased competition.

7.6.3 CIE approached this part of the evaluation by designing a partial equilibrium rice model around the available data. This allowed for separate markets and supply chains to be isolated within the model, and test how each of these stakeholders is impacted by different policy settings. The model was dynamic, which means that within the rice industry, the impacts on one supply chain influence not only the final economic outcome but also quantify the impacts on other supply chains and markets identified within the model, through supply and demand elasticities.

7.6.4 Treasury's CBA guidelines were applied to the results of the modelling evaluation. The key attributes of the Treasury Guidelines were that all results were displayed as an impact above or below the baseline scenario set up in the model. Secondly the Treasury standard discount rate of 7 per cent was applied to the model's aggregate scenario outputs, and final results were presented in NPV terms.

7.6.5 The CBA for the evaluation took a 6-year perspective out to the 2026-27 crop year. While the ideal approach would be to consider a longer timeframe for the evaluation, as noted, variability of rice production and exports is a characteristic of the industry, and given dynamics in world markets, establishing a baseline that is a reasonable representation of the future is very challenging. In addition, a number of the inputs from industry were based on business plans that had a short to medium term perspective.

Scenarios modelled

7.6.6 In order to assess the net benefits or costs of policy settings a range of scenarios had to be developed, with the initial scenario of a continuation of vesting in its current form being the baseline from which other scenarios were measured (see Table T7.2). The scenarios were developed based on feedback from the industry consultation which provided a deeper understanding of the key issues.

Table T7.2: Summary of scenarios

	Remove export single desk	Complete domestic deregulation	Description/comments
Retain the single desk arrangement in its entirety			
Scenario 1a	X	X	Baseline
Scenario 1b	X	✓	Baseline with increased domestic competition (reform of ABL system and vesting powers)
Removal of rice vesting and single desk export arrangements			
Scenario 2	✓	✓	Complete removal of current arrangements
Single desk geographically confined to the Riverina/Murray region with an increase in domestic competition			
Scenario 3	Partial	✓	Export single desk maintained for Riverina/Murray, and Increased domestic competition (reform of ABL system and rice vesting powers)

Scenario 1: Feedback from the consultation identified that that vesting continues to have outcomes not only on export arrangements of rice, but also retains some regulation over the domestic market. Therefore, the first scenario was split into two subcategories:

- **Scenario 1a (baseline – no policy change)**: The baseline for the analysis is that the vesting arrangements are retained in their current form for a further 6 years. Given SunRice's established position across all markets, it was noted that it was most likely that they would be awarded the SEEL again under this scenario.
- **Scenario 1b (Domestic market regulation reform)**: This scenario is a variation to 1a, where the single export desk was retained, but further reforms of domestic market regulations were introduced. This scenario considered that easing certain regulations would encourage competition in the domestic market by lowering the barriers to entry through the removal of:

- The requirement that all rice must be vested with the RMB via licensed buyers, including the requirement for full disclosure of information to the RMB,
- The requirement that the holder of the SEEL be the buyer of last resort, and
- Restrictions on the storage of rice on-farm.

Scenario 2 - Complete removal of the single desk export arrangement and domestic regulation reform: In this scenario, The Act is repealed, with the RMB being dissolved along with its associated functions and regulatory controls. CIE note that from the consultation, there would be an adjustment issue of how to transition away 'industry good' activities from the current supply chain, such as the supply of certified seed and industry-based R&D, extension and data collection functions.

Two variations of this scenario were considered by CIE:

- No significant change in market structure in terms of one dominant NSW supply chain and smaller niche players, and
- Possible entry of one or more medium to large businesses — as was identified in the case of the Californian rice industry.

The extent of additional competition that is likely under regulation is largely focused on two key considerations:

- The extent of investment in infrastructure and the market position of the existing supply chain in terms of attracting growers but also servicing customers in both domestic and export markets,
- the cost of entry into the industry that is likely for businesses of different scales.

Based on more detailed analysis contained in the CIE report (see CIE report, appendix E), it was concluded that the most likely outcome was that the existing supply chain would remain the dominant supplier of Australian rice in both domestic and export markets, with small and medium supply chains focused on product differentiation developing alongside the existing supply chain.

Scenario 3 - Single desk geographically confined to the Riverina/Murray region and domestic regulation reform: This scenario considered three elements including retention of the SEEL for the Riverina/Murray region only, allow the Northern Rivers access to export markets to diversify their market base, and removal of domestic market restrictions (as per scenario 1b) to increase domestic competition. This includes:

- Rice produced and milled outside of the Riverina/Murray region can be exported freely, as is the case for rice grown in any other state such as Victoria,
- Approval and monitoring of licensed buyers by the RMB and regulations regarding the storage of rice by licensed buyers would no longer apply to any rice produced in NSW for the domestic market.

Sensitivity testing

7.6.7 In addition to the scenarios discussed, two additional options or sensitivities were quantified for each scenario around the extent of substitution of new products supplied by the Northern Rivers or Southern breakaway group compared to the existing Australian supply chain or US competitors:

- Low substitution. This would occur if new products did not significantly displace existing products in the markets identified.
- Moderate substitution. This case results in some substitution of new products for existing product in the target markets. This is headline analysis for the evaluation.

7.6.8 The case where new products are high or perfect substitutes was not considered as it would be difficult to justify a business case that involves direct competition in markets with a significantly larger competitor who also sells under Australian branding, as well as competing with suppliers from other countries.

7.6.9 Where a competitor's product is displaced from one market, this results in lower price received and either a diversion of the product to another market (where this is possible if there is access to exports) or a reduction in supply. The moderate substitution is used as the headline analysis as they have the greatest impact on relative prices, and therefore CIE note the results are likely to be conservative.

7.7 Evaluating Freight Scale Advantage

7.7.1 SunRice seek to leverage their scale across the total freight task of their domestic and international operations, to negotiate favourable shipping rates and reduce the average shipping cost of rice into international markets. Conceptually this results in lower costs, and therefore more funds available to distribute back to Australian producers.

7.7.2 As there is no publicly available data for the freight task operated by SunRice, which largely relies on 20-foot food grade containers, and the inability to access comparative spot rate data due to commercial sensitives, it was not possible for CIE to independently analyse any FSA benefits.

7.7.3 The RMB's verification reports, and subsequent annual grower reports verify and present figures on the FSA delivered by reviewing letters from shipping companies to the SEEL holder, indicating the level of discount applied to SunRice shipping rates compared to spot shipping rates. During consultation it was noted that discounts relate to the entire domestic and international shipping task for SunRice, of which the Australian rice shipping task represents approximately 30 per cent of the total shipping task in a typical season. These discounts are then used to calculate discounts applied to exported tonnages for each market grouping, that apply to the different shipping operators.

7.7.4 The approach adopted by CIE was to look at how the benefits identified by the RMB may change under each of the scenarios outlined previously, given two possible impact outcomes:

- lower export volumes by the SEEL holder as the result of diversion of product from export markets to the other supply chains; and
- lower per tonne benefits (that is, higher freight prices) that result from the lower volume.

7.7.5 Two variations were considered where exports volumes by the existing supply chain were reduced by:

- Maximum FSA impact: Existing supply chain export volumes were reduced by the sum of the modelled Northern Rivers and the breakaway Riverina/Murray groups export volumes under scenario 2. This equated to 22.8 kilotonnes (kt) by 2026-27.
- Headline most likely FSA impact: Existing supply chain export volumes are reduced by the volumes indicated by the economic modelling for each scenario. This equated to a 6.8 kt reduction for Scenario 2 and 1.6 kt reduction for Scenario 3 by 2026-27 respectively. This is the headline results presented for the FSA findings.

7.7.6 The analysis showed that while there was some loss in these benefits, they were relatively small as the majority of the benefits identified were attributable to markets that were not targeted by the other supply chains. It was concluded that these benefits are more attributable to SunRice being a large food multinational, rather than from holding the SEEL.

7.8 Evaluation model baselines

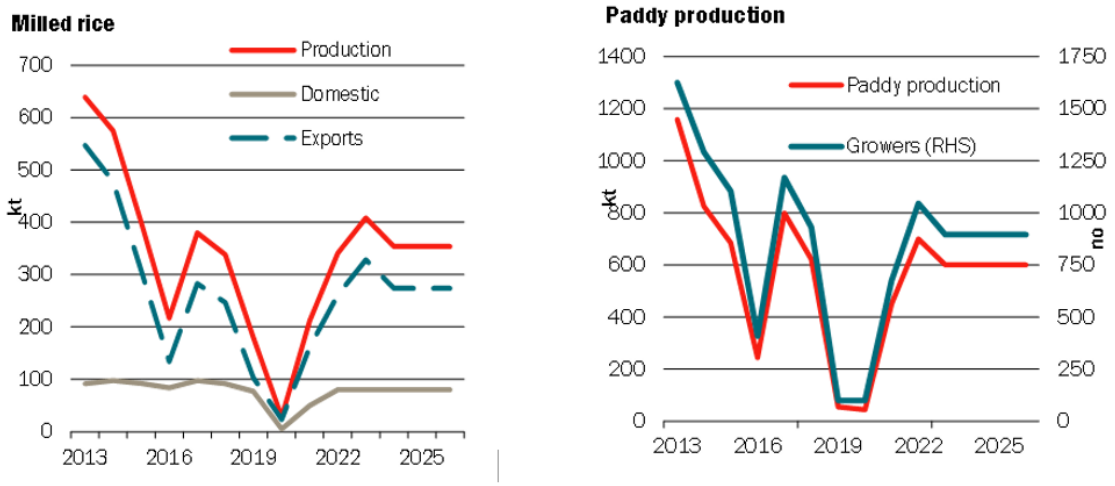
7.8.1 Prior to the scenarios being assessed, baselines for each of the NSW supply chains needed to be set up. The assessment used a steady-state approach for the baseline based on 'normal year' crops and prices but uses time-based changes in grower numbers and production to inform each scenario[e].

Riverina/Murray baseline – existing supply chain

7.8.2 A key assumption for the baseline production levels in the Riverina/Murray region refers to crop years 2011 to 2021, where average paddy production was just over 600kt. This is the production level assumed in the baseline or steady-state production for the economic analysis for 2023 onwards (Figure 7.1).

[e] Projection from CY2022 onwards.

Figure 7.1: Baseline for the Riverina/Murray by crop year[24]



7.8.3 In terms of assumptions for Riverina/Murray sales to the domestic and export markets:

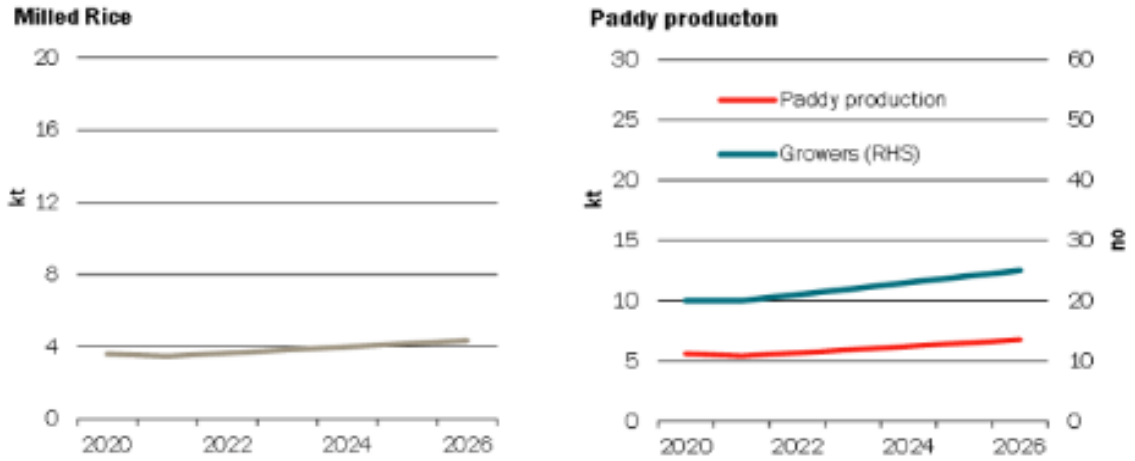
- The domestic market will account for approximately 80kt of rice with the export markets receiving around 275kt of rice in product weight terms
- The baseline assumes that the market composition for the 5 baseline years looks like an average of the 2017 and 2018 crop. It also assumes that production will stabilise around 600 kt paddy from CY2023 onwards, after a rebound to 450 kt and 700 kt in 2021 and 2022 respectively.
- In the baseline, SunRice has the SEEL, and it is assumed that they resume a reasonably normal sales pattern across export markets as happened in the 2017 and 2018 crop years.
- As noted, in line with SunRice policy, SunRice no longer export bulk other than to the Japanese tender market, which they did in the 2017 and 2018 crop years.

Further information including tables of Riverina baselines can be found in Appendix E.

Northern Rivers baseline

7.8.4 In the case of the Northern Rivers supply chain baseline, without any regulatory change, this supply chain will attract a limited number of new growers over the next 6 years based on the higher GM available (Figure 7.2).

Figure 7.2: Baseline for the Northern Rivers by crop year[24]



Riverina/Murray baseline – new supply chain

7.8.5 Based on stakeholder consultation, a baseline was also developed for a group of Riverina/Murray growers that could potentially leave the existing SunRice supply chain. These growers currently supply the SunRice pool and are included in the Riverina/Murray baseline shown in in Figure 7.1. The following assumptions were made about this group:

- The breakaway group would initially include 15 rice producers in the region
- These producers have yields that are, on average, 20 per cent higher than district averages and plant significantly larger areas than growers outside of the top 20 per cent, and
- Currently, these ricegrowers plant varieties in line with the marketing requirements of the current supply chain, predominantly the Reiziq variety.

7.9 Evaluation results

7.9.1 For each of the scenarios, the baseline volumes and/or prices were adapted to reflect the core scenarios and were informed by stakeholder consultation. In summary they involve simulating deregulation options through the following likely outcomes:

- increases in production for the key groups, based on greater access to markets
- greater competition for the existing NSW supply chain both in terms of loss of ricegrowers but also increased competition in their key markets, albeit in different product segments.

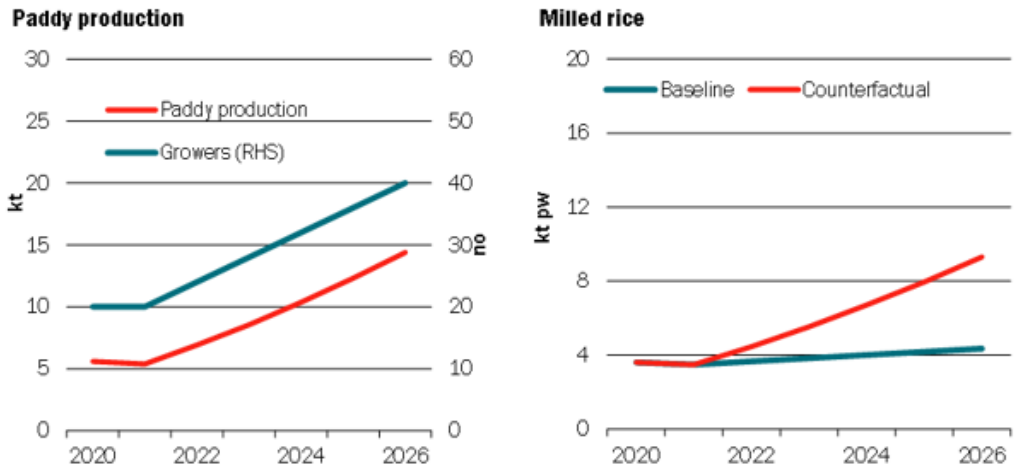
7.9.2 The impact of improved access to each of the supply chains depends on:

- the extent to which deregulation changes production relative to the baseline and therefore scope for sales into domestic and export markets
- the extent to which the additional volumes displace competitors' product and/or reduces the average price received of Australian product in that market.

Impacts on the Northern Rivers

7.9.3 The principal impact on the Northern Rivers region from the removal of domestic regulations, is that the number of supplying ricegrowers increases from 20 to 40 over the next 6 years, resulting in total paddy production of 14.4 kt in the 2026 crop year. The production of milled product for sale increases to 9.3kt by 2026-27, representing 2.7 per cent of Riverina production (Figure XX). Importantly, this production level is within the scope of planned capacity of the region to grow, store and mill paddy.

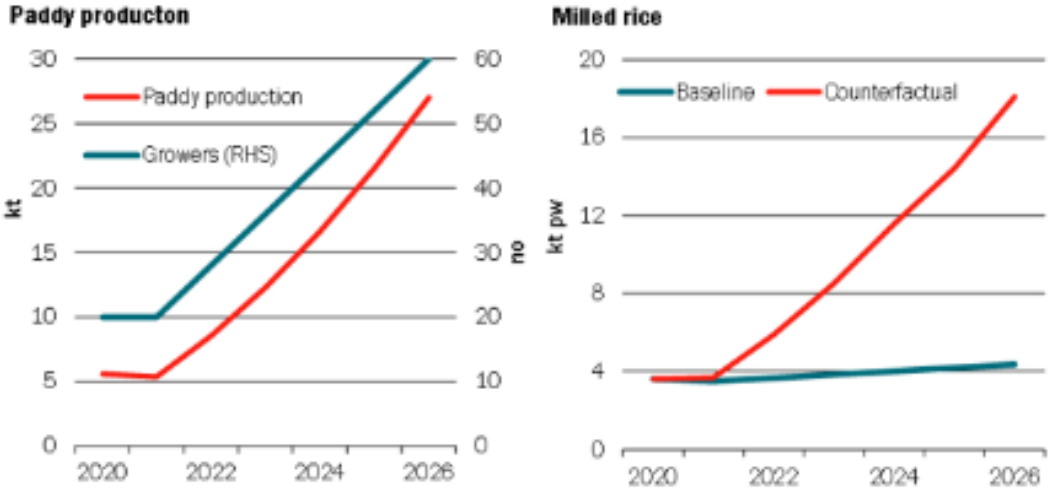
Figure 7.3: Improved domestic access – Northern Rivers[24]



7.9.4 Figure 7.4 provides the scenario with access to both the domestic and export markets for the Northern Rivers region. Increased confidence from the ability to diversify markets enables the supply chain to take on 60 growers and produce 27kt of paddy over the next 6 years. Some additional key points are that:

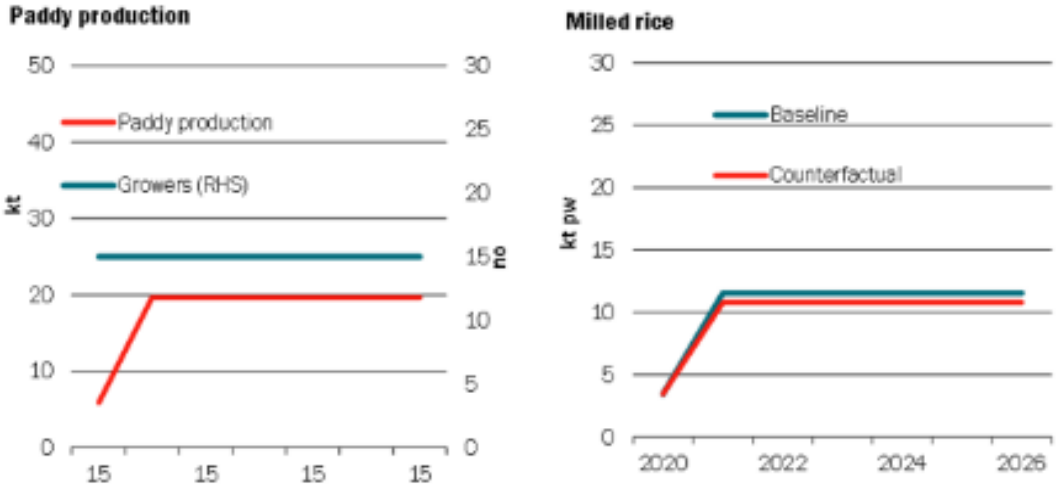
- This paddy production level is around 50 per cent of the total 50kt maximum potential level identified by Aither[13]. Over a longer period for adjustment, this response could be significantly higher.
- By the 2026 crop year, total milled product could be 18 kt or around 5 per cent of equivalent Riverina production.
- In this scenario, it is anticipated that the pattern of sales diversifies over time. Starting from its foothold in the domestic market, this supply chain would broaden to New Zealand first and later premium markets in the Middle East and Japan.

Figure 7.4: Improved domestic and export access – Northern Rivers[24]



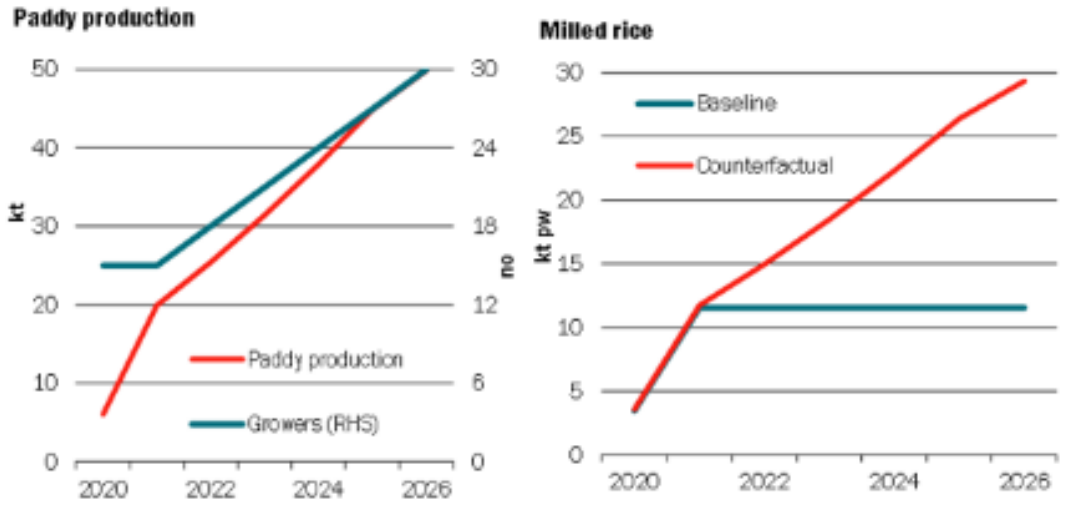
7.9.5 Figure 7.5 summarises the equivalent scenario for the Riverina/Murray breakaway group for improved domestic access. Under this scenario, this group of growers reconfigure their production towards higher value but lower yielding varieties, where paddy production is likely to fall marginally relative to the baseline. However, as a result of expected paddy prices of around $20 per tonne over those from Growers' pool, farm revenues are expected to increase by 7.3 per cent compared to the baseline.

Figure 7.5: Improved domestic access – Riverina/Murray breakaway group[24]



7.9.6 Figure 7.6 shows that the opportunity to diversify markets should provide greater incentive for more growers to move away from the established supply chain. With 30 large and medium growers, the group could represent just under 50kt of paddy production or 8 per cent of the total in the Riverina/Murray in a normal year. This increased production is likely to be marketed on the domestic market until export channels can be established over time. With the ability to choose their own marketing approach, growers will have the ability to change the mix of the varieties they grow to premium varieties increasing the average farm-gate return for premium varieties.

Figure 7.6: Improved domestic and export access – Northern Rivers[24]



7.10 Evaluation findings

7.10.1 A summary of the headline impacts is provided in Table T7.3 involving benefits and costs to the NSW rice industry for the moderate substitution case.

The results are the value of changes in sales to domestic and export markets at an export FOB equivalent level over the period 2020-21 to 2026-27, and the reduction in FSA for each of the NSW rice supply chains. The NPV of these changes is then estimated to provide a summary estimate of total benefits and costs. The moderate substitution case has the greatest impact on relative prices and is used as the headline analysis and therefore likely to be conservative.

Impact on rice industry sales

Table T7.3: Impact relative to baseline – moderate substitution[24]

	Existing supply chains	Expansion of existing and new supply chain	Reduction in FSA	Total
	$Am	$Am	$Am	$Am
Scenario 1b: Domestic regulation reform				
Northern Rivers	-2.4	14.3	0.0	11.9
Riverina/Murray	-27.1	57.6	0.0	30.5
Total	-29.6	71.9	0.0	42.4
Scenario 2: Complete removal of the single desk and domestic regulation reform				
Northern Rivers	-4.2	37.4	0.0	33.1

Riverina/Murray	-57.1	119.4	-1.3	61.0
Total	-56.1	137.6	-1.3	80.2
Scenario 3: Single desk confined to Riverina/Murray and domestic regulation reform				
Northern Rivers	-6.6	51.7	0.0	33.1
Riverina/Murray	-27.1	57.6	-0.5	30.0
Total	-31.3	95.0	-0.5	63.1

Scenario 1b: Domestic regulation reform

7.10.2 Under this scenario, where growers have greater capacity to develop a business plan for the domestic market, the benefits over the next 6 years are relatively modest compared to the size of the industry.

In total, the increase in the present value of sales would be $71.9 million across both the Northern Rivers and the breakaway Riverina/Murray groups, resulting from the diversion of product away from the existing supply chain and a higher return. However, this involves a reduction in the value of sales of the existing supply chain of $29.6 million, principally the result of diversion of product to the new supply chain. This leaves an overall improvement at an industry level of $42.4 million over the period to 2026-27 or a 2.7 per cent improvement over the baseline.

Under this scenario there was no change in FSA.

Scenario 2: Complete removal of the single desk and domestic regulation reform

7.10.3 For the Northern Rivers and the breakaway group in the Riverina/Murray region, where they have access to the export market and greater access to the domestic market, the benefits are almost double compared to the scenario of domestic regulation reform only. The NPV of the sales of both groups could increase to $137.6 million by 2026-27. This is based on the potential increases in production and premiums identified in the development of the scenarios.

7.10.4 This is offset by a reduction in sales through the existing supply chain of $56.1 million, resulting in an overall improvement of $81.5 million in sales at an NSW industry level over the period to 2026-27. This is equivalent to a 4 per cent improvement over the baseline.

7.10.5 When using the headline most likely FSA variation for this model scenario, export volumes for the existing supply chain fall by 6.8 kt by the year 2026-27. This results in a total reduction in FSA of -$1.35 million to the existing supply chain in NPV terms. Under the headline FSA variation, the overall industry would see an overall improvement of $80.2 million when factoring in changes to rice sales and FSA. When considering the maximum impact FSA variation under this scenario, export volumes were reduced by 22.8 kt in 2026-27, which resulted in a reduction of FSA of -$2.01

million in NPV terms. This would further reduce the overall benefits of this scenario to $79.49 million over the period to 2026-27.

Scenario 3: Single desk confined to the Riverina/Murray and domestic regulation reform

7.10.6 Scenario 3 provides an intermediate outcome between partial and full regulation where the net benefits in terms of sales are $63.7 million or a 3.1 per cent improvement at an NSW industry level.

7.10.7 The headline most likely FSA variation under this model scenario resulted in a fall in export volumes for the existing supply chain of 1.6 kt by the year 2026-27 and a total reduction in FSA of -$0.53 million in NPV terms. This reduces the overall net benefits for the overall industry to $63.1 million in NPV terms once factoring in changes to rice sales and FSA.

7.11 Evaluation sensitivity results

7.11.1 Sensitivity testing was carried out for both the modelled impact on rice sales as well as the impact on FSA as detailed previously. Table T7.4 provides a summary of the results of the sensitivity analysis for the low substitution rice sales impacts and the maximum FSA impact that did not form part of the headline results.

Table T7.4: Impact relative to baseline – low substitution[24]

	Existing supply chains	Expansion of existing and new supply chain	Reduction in FSA	Total
	$Am	$Am	$Am	$Am
Scenario 1b: Domestic regulation reform				
Northern Rivers	0.0	17.8	0.0	17.9
Riverina/Murray	-20.1	72.6	0.0	52.5
Total	-20.0	90.4	0.0	70.3
Scenario 2: Complete removal of the single desk and domestic regulation reform				
Northern Rivers	0.3	47.2	0.0	47.5
Riverina/Murray	-46.5	153.2	-1.3	105.4
Total	-44.8	178.9	-1.3	132.8
Scenario 3: Single desk confined to Riverina/Murray and domestic regulation reform				
Northern Rivers	-20.1	72.6	0.0	47.5

Riverina/Murray	0.3	47.2	-0.5	52.5
Total	-19.8	119.8	-0.5	99.5

7.12 Evaluation summary

7.12.1 For the headline results, each scenario provides a positive net benefit but small in relation to the scale of the NSW industry in what could be reasonably expected to be 'normal' production years.

7.12.2 In each scenario, there are modest net benefits, which are maximised in scenario 2 with access to both domestic and export markets. The present value of net benefits in the headline analysis over 6 years to 2026-27 amounting to $80.1 million or a 3.9 per cent improvement domestic and export sales to the NSW rice sector. This increases to a present value of $132.8 million over the same time period for the low substitution sensitivity test.

7.12.3 Scenario 1b headline results, where only domestic market regulation reforms are implemented, indicates this generates the lowest economic benefit of the scenarios modelled, at $42.4 million in PPV terms or approximately 2.1 per cent increase in rice sales to the industry.

7.12.4 The benefits accruing under scenario 3 to the Northern Rivers region where they would have greater access to the domestic market and new access to the export market was $33.1 million in NPV terms over the 6-year period to 2026-27 or approximately a 1.6 per cent improvement in domestic and export sales. This increases to $63.1 million in NPV terms, when the domestic regulation reforms are also implemented for the whole NSW rice industry.

7.12.5 This analysis only incorporates some of the benefits from innovation associated with the development of new products, based on conservative estimates around the potential for change in the medium term. While the benefits are moderate compared to the size of the industry, the current arrangements are clearly restricting competition and innovation, and there are opportunities available to diversify and grow the industry base. This observation is supported by the feedback received from some stakeholders.

7.12.6 A related but separate question is what proportion of these benefits would be handed-back to growers at farm level, after milling margins and marketing costs are accounted for? A reasonable observation is that, from a growers' perspective, the benefits of moving away from the existing supply chain and arrangements would be expected to match, at minimum, and exceed those from the grower's pool otherwise the incentive to leave would be limited to having greater autonomy in business decisions when they choose to grow rice.

Longer-term benefits

7.12.7 It is also noted that the 6-year time frame used for the modelling was restricted by the realistic understanding of forward projections for the baselines, and how the supply chain may change over time. Given the maximum benefits do not arise until year 2026-

27 in the modelled scenarios, the results in present value terms would significantly underestimate the net benefits of each scenario if a longer timeframe were considered. Therefore, despite the modest results, these benefits estimated are considered conservative.

7.13 Regional impacts

7.13.1 The benefits to regional communities due to vesting, and the impacts to these communities in the absence of vesting, was cited regularly throughout the review. As such CIE was asked to consider these impacts in their analysis. The preceding analysis estimated the impact on sales at a value chain level, however the model did not consider how employment or flow on impacts may occur. To assess how the direct impacts modelled translated to regional impacts, the following considerations were made.

- How these changes are shared between growing and milling sectors for each supply chain depending on changes in milling-level costs and paddy pricing offered to growers
- investment and employment undertaken by the new entrants.

Regional impacts: Riverina/Murray region

7.13.2 **Farm level:** At a farm level, these scenarios are expected to return a positive outcome for the Riverina/Murray breakaway group. This is through increased paddy returns and increased production as a result of the higher returns on offer. Under a full deregulation scenario, farm revenue of this group is expected to increase by 1.1 per cent of the total value of output for agriculture in the region.

7.13.3 For the ricegrowers remaining in the existing supply chain, the impacts are less certain. While the analysis shows the modelled impacts to this supply chain, these impacts are at an industry export FOB level, and therefore impacts at the farm gate will be contingent on possible changes to the PPP mechanism, which cannot be projected. Some possible outcomes considered under this situation for the existing supply chains are:

- The loss in throughput could increase costs at a unit level, due to lower asset utilisation which may then be passed back to growers through lower paddy prices, although this would reduce competitiveness of the supply chain relative to other commodities and the new supply chain. The loss in throughput is also relatively minor in comparison to historical variations in paddy supply making it difficult to separate the impact of deregulation from other external factors.
- Alternatively, the existing supply chain could decide to match the paddy prices of the new supply chain, to maintain competitiveness with other commodities and the new supply chain.

7.13.4 Overall farm consolidation or reduction in farm business numbers in the region is not expected to be lower under the scenarios modelled, relative to the normal level of consolidation contained within the model baseline.

7.13.5 **Processor level:** Consultation indicated that the Riverina/Murray breakaway group would require investments on farm, and then centralised drying, storage and milling facilities. The cost of the investments is expected to be in the order of $20 to $25 million in total, including drying, storage, milling, packaging, and marketing. The flow on benefits on these investments depend on where the components are sourced, with some expected to be imported (such as a cost-effective rice mill) and others potentially sourced from within or adjacent to the region (such as silos, aerators, and augers). Therefore, not all of these capital investment benefits would be contained within the region.

7.13.6 The required level of employment to run the new facilities based on 50,000 tonnes under the full deregulation scenario was estimated to be 20 Full Time Equivalents (FTE), including packaging and marketing operations.

7.13.7 Based on the headline analysis for the full deregulation option, it was estimated that 30 kt of rice would be diverted from the Deniliquin mill and 20 kt from the Leeton mill, with similar ratios for the regional ASGS storage sites. However, it was noted that this total 50 kt diversion was modest compared to annual variations in rice production, and the rated capacities of each of the mills which was collectively 800 kt. Analysis also points to processor employment in the region declining over time, due changes in rice production levels and cost efficiency measures.

7.13.8 Overall Impacts on the processing sector in this region is expected to be modest relative to the size of the economy and to the total number of jobs. Any impacts to jobs in the existing supply chain were expected to be offset by new employment in the new supply chain.

Regional impacts: Northern Rivers region

7.13.9 **Farm level:** Rice production is seen as an opportunity in the Northern Rivers to diversify farm income streams and to better utilise land that is prone to inundation. Farm employment levels would likely remain the same under each of the scenarios compared to the base case, with higher and more stable farm incomes the main benefit derived at a farm level.

7.13.10 Comparing GM from various sources for the region, rice was estimated to have a GM per hectare 2 to 5 times higher than that of soybeans, depending on which rice GM scenario is used, and significantly higher again than grazing operations that is the predominant use on lower lying areas. Further analysis of the improvement in GM outcomes from converting land to rice production was conducted. Key assumptions included:

- A medium GM result for rice was used
- The assumed rice area planted under the counterfactual was 4,500 hectares
- Assumes conservatively that 90 per cent of the land is diverted from soybean production, and 10 per cent from grazing operations.

7.13.11 This analysis indicated an overall improvement to regional GMs estimated at $3.33 million or $95,000 per farming operation (see Table T7.5).

Table T7.5: Net GM impact on farm revenue in the Northern Rivers[24]

	Change in rice planting from baseline	Improvement in GM	Improvement in farm income
	ha	$/ha	$m
Total land planted	4,500	$742	$3.339
- from soybeans	4,050	$715	$2.896
- from grazing	450	$985	$0.443

7.13.12 **Processor level:** Processing investments have already been made in the processing sector in this region, with some further upgrades underway. These investments include storage, aeration and distribution assets owned by the Natural Food Company at Kyogle, milling assets owned by Slater Farms and additional on-farm storage infrastructure installed by other ABL holders in the region. The value of these investments has not been disclosed.

7.13.13 The investments made in the Northern Rivers was also cited by CIE as a practical example of small-scale infrastructure and micro milling operations that could be translated, albeit at a larger scale, by a new supply chain in the Riverina/Murray region also. A key feature is that these facilities can also be made scalable over time, where additional capacity can be added relatively easily over time as supply increases.

7.13.14 Estimates of additional employment under the full deregulation reform scenario is in the order of an additional 10-15 FTE, based on understanding of similar size supply chains. Additional employment may also be required in Penrith area, where it is understood the Natural Food Company has its offices and warehouse facilities, and also from where it outsources its packaging operations.

7.14 Regional impacts findings

7.14.1 Under the full deregulation scenario, the benefits to the Riverina/Murray breakaway group are expected to be positive with retained employment and higher farm incomes being the main drivers. The higher farm gate returns for the Riverina/Murray breakaway group is expected to increase the competitiveness for land and water in the region and incentivise increased rice production. An increased level of farm consolidation under the deregulation scenarios is not expected, relative to the level contained in the baseline modelled.

7.14.2 The regional farm level impacts for existing supply chain growers under full deregulation is likely to be in the form of higher unit costs for processing and storing the rice. Depending on the response from the current SEEL Holder, and possible changes to the PPP, these costs may or may not be passed on to growers who remain in this supply chain. However, it is noted that the reduction in supply to the existing

supply chain, and subsequently increased costs, is expected to be modest relative to the variability in supply experienced within the industry.

7.14.3 At a processor level, increased investment in infrastructure would be required in both the Riverina/Murray and Northern Rivers, with some of that investment being outside the region, and some of it being regionally sourced. Employment impacts to the Riverina/Murray existing supply chain are likely to be offset by new employment within the new supply chain. It was estimated that there would be 30-35 new jobs created in the drying storage and milling across the Riverina/Murray and Northern Rivers regions under full deregulation option, with these jobs offsetting possible job reductions in the current supply chain. These job numbers are relatively modest when compared to the variability in processor employment levels experienced with changing rice production levels.

8. Other benefits and costs

Key points

a) **A potential cost of current vesting arrangements is that it prevents producers from accessing alternative export marketing options which may be cheaper, more efficient, or provide more innovative marketing solutions.**

- In the absence of vesting, additional competitors would compete with SunRice to purchase rice for export. However, numerous barriers to entry would restrict the market share these competitors would be able to obtain.
- Potential new buyers in the contemporary rice industry are likely to concentrate on servicing distinct high value market niches and unique product branding rather than competing head-to-head with SunRice.

b) **The buyer-of-last-resort provision provides a sense of security for rice growers.**

- The application of this provision is very similar to the contract conditions for supply chains which exist for most other grains grown in NSW however, given that rice growers are not able to easily store rice on-farm, there is likely some benefit in the buyer-of-last-resort provision.
- The provision for the buyer-of-last-resort is one that would cease in the absence of vesting arrangements.

c) **Whilst the importance of the rice industry to the Riverina/Murray and Northern Rivers regional economies was a common theme in most submissions, there were divergent views on the influence of vesting on regional development.**

- There are additional economic benefits beyond direct payments to growers and suppliers however, it is unlikely that these benefits are dependent on vesting.
- In the absence of vesting, rice will remain an important crop in the Riverina/Murray. SunRice will continue to operate and is highly likely to remain the major influence on rice production, milling, packaging and sales in the region.
- The removal of vesting also provides the opportunity for rice to increase its economic contribution through growth in the Northern Rivers and investment from new participants in the Riverina/Murray.

d) **Despite the partial deregulation of the Australian domestic market in 2006, evidence indicates that vesting is continuing to restrict the development of the domestic market including:**

- A prohibitive ABL application and audit process.
- Restrictions on seed retention and supply.
- Limited markets and competition from rice imports.
- The dominance of the SEEL holder in the domestic market.

e) R&D and extension services provide a benefit to both growers and SunRice and would continue in the absence of vesting.

- SunRice is not the sole financier of R&D and investment by SunRice is likely to continue where it is in line with grower and commercial interests, whether vesting continues or not.
- In the absence of vesting, the scope of R&D may change which may enable new opportunities for productivity improvement and market development.

f) Part of the success of the Australian rice industry has been the ability to create a reputable competitive edge in the global marketplace with the supply of high-quality grain.

- Vesting and the SEEL have afforded SunRice the benefit of scale to establish industry-wide quality assurance systems, however that does not mean they are mutually dependent into the future.
- Even if SunRice's market share is reduced, it is not reasonable to assume that it will not continue to maintain its high-quality standards outside of vesting.

g) The impact of vesting on the Northern Rivers rice growing region is acute.

- There is unmet potential for rice production in the Northern Rivers rice growing region and vesting is constraining the growth of the industry.
- The SEEL is limiting the ability of rice growers and processors in the Northern Rivers region to manage their level of market risk via access to the export market.

8.1 Competition

8.1.1 A potential cost of current vesting arrangements is that it prevents producers from accessing alternative export marketing options which may be cheaper, more efficient, or provide more innovative marketing solutions.

8.1.2 The consensus from most stakeholders supportive of vesting is that any increase in competition would result in the total loss of, or a significant impact to, the benefits that they attribute to vesting such as the ability to generate a price premium, the loss of scale and the efficiencies it facilitates, and the security and certainty that vesting provides the industry.

"With multiple exporters of NSW rice, these benefits would not be exclusive to one supplier. Hence any benefit derived would be competed away by the multiple exporters who fight to obtain market share".

"Foreign single-desks would be able to promote head-to-head competition between the sellers of NSW rice and thus negotiate the price downwards".

"Fragmenting export channels would result in a loss of scale benefits which would in turn erode the competitive advantage of NSW rice to the detriment of growers and the community at large."

8.1.3 In contrast, opponents of vesting argued that the only tangible change would be that rice growers would have more choice in how their rice was marketed.

"Change to the SEEL means simply that one company will no longer control the rice industry and the many functions it currently performs will need to be carried out by others in the wider grains community".

"Without vesting, growers could explore other options or buyers other than SunRice to export their rice product. This would provide stability and competition in the industry".

8.1.4 The DPI notes that in the absence of vesting, it is likely that additional competitors would compete with SunRice to purchase rice for export. However, the market share which these competitors would be able to obtain is dependent on numerous factors. There are some significant barriers to entry for new industry participants including:

- Existing milling and processing capacity.
- High fixed costs of entry.
- High variability in Australian rice supply.
- Existing industry scale and scope of SunRice.
- Availability of public domain rice varieties.
- Grower financial interests and loyalty for the SunRice business.

8.1.5 Some of these barriers to entry were noted by stakeholders.

"SunRice's understanding and experience in export markets, its ability to procure stock globally, and its investment in offshore facilities, provide SunRice with an international trading advantage unlikely to be obtained by other local competitors".

"Availability of fit-for-purpose infrastructure would be a barrier".

8.1.6 SunRice also acknowledged the barriers to entry during consultation, noting that it would be a risky decision for an international player to enter the market and try to set up a 300,000 tonne mill into an industry that already has excess milling capacity and the variability of production that the NSW industry experiences.

8.1.7 Based on consultation and consideration of the limited business case for scale-based competition, DPI expects that SunRice would most likely continue as the major participant in the Australian export market regardless of vesting arrangements or not. There are a number of justifications for this position. Given SunRice's structure (largely grower-owned), their dominant position as the key provisional seed supplier linked to paddy rice accumulation, level of investment in infrastructure, and market development for Australian product, SunRice would remain as the significant buyer of NSW-grown rice. They would retain a trading advantage over potential competitors due to grower loyalty, brand reputation, industry knowledge and experience in international markets, and retain the ability to procure international supply.

8.1.8 Somewhat in contradiction to stakeholder concerns around large-scale fragmentation in the industry if vesting were to be removed, in most cases, submissions and feedback

during consultation supported the conclusion that SunRice would retain the majority of the market.

"SunRice would ultimately be able to out-compete new Australian competitors because it could carry any associated reduction in profit, or indeed losses, for a longer period than its new competitors".

8.1.9 During consultation, it was noted on many occasions that stakeholders could also link perceived disadvantages from competition back to pre-Ricegrowers Cooperative days, where claims of anti-competitive behaviour amongst multiple rice buyers led to lower farm gate prices. It was also suggested that this was a key driver in the establishment of SunRice as a cooperative in the first place.

8.1.10 Throughout consultation it was emphasised that potential new buyers in the contemporary rice industry are likely to concentrate on servicing distinct high value market niches and unique product branding, rather than competing head-to-head with SunRice.

8.1.11 There was no evidence presented to the Review which would suggest a new large-scale processor may invest in the Australian market. The noted exception to this was the possible situation where a takeover offer was launched for SunRice. In this case, A class shareholders and growers themselves would need to vote via a 75 per cent majority in favour of a takeover arrangement. A similar event occurred in 2010-11 when an offer from Spanish food company Ebro Foods launched an offer, which fell short of the required majority level support[96].

Timely and competitive farmgate pricing

8.1.12 The SEEL results in one organisation setting the prices at which all NSW-grown rice is offered in the export market. The price received by most growers is determined by the pool operated by SunRice. Despite the PPP, there is limited visibility on how the pool price is determined (discussed in Section 4.2).

8.1.13 Most submissions in favour of vesting argue that one of the main benefits of the existing arrangements is that it 'ensures the best possible returns from rice sold out of Australia,' which is one of the three objects of the RMB. Many of these submissions draw a direct link between the price premiums achieved by SunRice and the paddy price received, assuming that they are in receipt of the best possible price.

8.1.14 Some submissions claimed that all premiums are returned to growers.

"The combination of [SunRice's] unique structure and the vesting arrangements result in all premiums obtained in our export markets being returned to growers, through higher farm-gate returns, and the regional communities which are underpinned by the Riverina rice industry".

While the EPP has a bearing on prices paid to growers, there are a myriad of factors which influence the paddy price received by growers, and the relationship between the export price received and the price paid to growers is not linear[73], as outlined in Chapter 4.

8.1.15 While it is the case that profits are not retained in the pool, it is not possible to quantify the actual individual pool costs. Additionally, in some low supply years, the pool has

made substantial losses to incentivise rice production and, in this situation, there is little direct linkage between export price and farm gate prices.

8.1.16 The DPI notes that most Riverina/Murray growers who participated in consultation felt that they get paid fairly. Some based this conclusion on their ability to make a profit, but when asked to elaborate further, many cited the existence of EPPs.

8.1.17 Conversely, some submissions from Riverina/Murray growers and feedback from consultations indicated that some growers do not feel like they are receiving the best price for their rice, particularly in the face of increased competition for water resources which, as discussed in Appendix A, is one of the most critical inputs into all rice enterprises.

"There appears to be little financial incentive for producers to commit to growing rice".

"The dynamics that have changed but the price that we're retrieving is not ".

8.1.18 When SunRice was a cooperative, by design all profits flowed back to rice growers. Some growers, many of whom noted that they were supportive of vesting in the past, are increasingly questioning whether they are being treated fairly and questioning SunRice's commitment to supporting grower's net returns.

"I strongly supported vesting when we're cooperative. It has become very clear now that the only thing that SunRice is doing is supporting public shareholders. The structure of the industry has changed so much that we're no longer SunRice's focus and, as a result, the price that we're being offered to grow the varieties that they're allowing us to grow is limited."

"Under the former cooperative structure, the vesting powers allowed all benefits to return to the growers, their families, and the community. Today, where SunRice is owned as a public company, the vesting powers appear to be benefiting those shareholders who benefit directly from the monopoly".

"SunRice's objectives are ostensibly to ensure long term improvement in the returns to the producers. There has been a consistent decline in annual rice production over the last ten years. Specifically, in the past three years, production declined from 623,000 tonnes in 2018 to 54,000 in 2019 to 45,000 tonnes in 2020. Only 7 per cent of this supply was used domestically and yet SunRice generated $223.2 million from exports in the 2020-21 financial year".

8.1.19 Some Riverina/Murray-based growers also referenced their experiences with other grain industries which have been deregulated citing, that despite initial misgivings, the increase in competition has benefitted them. Due to increased competition, they can:

"now get 5 price quotes in 5 minutes".

8.1.20 In consultation, some growers also noted restricted access to pricing information due to the form and timing of pricing data offered by SunRice. There was an expressed desire to receive indicative prices earlier in order to make planting decisions, arrange farm inputs and manage farm operations. Many growers expressed enthusiasm for fixed price contracts which have been offered for the last few years, enabling farm budgeting and risk management. The pool pricing system prescribed under The Act, which includes a provision for 'uniform' pricing for growers, has recently resulted in indicative prices being provided late in the planting season or not at all, exacerbated

by lagged final pricing. For reference, as late December 2021, indicative pool price ranges were not available for CY2022.

8.1.21 Supporters of vesting argue that in the absence of vesting, increased competition will lead to lower prices (due to international buyers taking advantage of head-to-head competition and forcing prices downwards). Increased competition in export markets may result in lower export prices however, depending on the level of product differentiation or substitutability, export margins may be impacted but not necessarily the price paid to growers. The price paid to growers will depend on competition for supply from SunRice and other exporters. Conversely, greater product offerings and differentiation in export markets may lead to increased overall demand for NSW rice which will, in turn, lead to greater competition for supply and a boost to farmgate prices.

8.1.22 In the absence of vesting, more competition and choice will give growers the ability to capitalise on this competitive pressure which may lead to higher farmgate prices.

8.2 Buyer-of-last-resort

8.2.1 As agreed under the SEEL, SunRice must act as a buyer of last resort for NSW produced rice so as to meet the statutory obligations of the RMB. Pursuant to The Act Section 61, the RMB may not refuse vested rice from any grower that conforms to applicable quality standards. Further, The Act, Section 64(2) states that all vested rice of an applicable quality must be purchased as nearly as possible, at a uniform rate.

8.2.2 This obligation to act as the "buyer of last resort" is consistent with SunRice's role as the main purchaser of rice produced in NSW. Within a large majority of the submissions made advocating for the retention of vesting, it is evident that the sense of security that the buyer-of-last-resort provides is substantial. Growers stress the importance of the surety that SunRice will purchase every last tonne of production at the pool price, provided it is of merchantable quality, at the variety specific price.

8.2.3 Submissions in favour of vesting note the buyer-of-last-resort as a benefit to their farm business by ensuring a buyer at the time the investment is made at sowing. All these submissions were from stakeholders located in the Riverina/Murray rice growing region.

8.2.4 The reasons why the buyer-of-last-resort instils a sense of security were not clearly defined by growers. During consultation, growers compared rice marketing to the marketing challenges of other niche grains produced on their farms. They noted that for other grains produced, they often became price takers, particularly for any grain delivered above their fixed tonnage contracts or sold directly on the spot market. For this reason, it was claimed that the buyer of last resort and the rice pool provides some certainty on rice returns for a grower's entire production volume based on the indicative pool price however, it does not mitigate entirely for price risk, as the price is not finalised until long after a grower's rice has been delivered.

8.2.5 Given that the buyer-of-last-resort provides a market for situations where production does not meet the base grade quality standards, and the fact that growers are mostly not permitted to store grain, it is clear that growers view this provision as an alternative

insurance mechanism. It helps growers manage some business risk by knowing that, providing their rice is of 'merchantable quality', then they will have a buyer, although it does not guarantee a buyer for grain that does not meet 'merchantable quality' specifications. Furthermore, it is noted that it is actually the contractual arrangements that confer buyer certainty before receiving planting seed or planting operations take place (see section 8.2.8 to 8.2.11).

"Primary producers throughout NSW well know what it's like not to be able to secure a buyer for their produce in bumper seasons, or to be left to find an alternate buyer at short notice when the original buyer backs out. NSW rice growers are protected against such situations by virtue of vesting".

8.2.6 The provision for the buyer-of-last-resort is one that would most likely cease in the absence of vesting arrangements. Clause 2.1 of the PPP[82] states that "In accordance with the requirements of the SEEL, SunRice will purchase all Paddy of merchantable quality that is offered to it by Growers. This obligation will cease to have effect if the SEEL is terminated or is amended to remove that obligation". As a result, the buyer-of-last-resort can be attributed to vesting and its existence is largely dependent on vesting.

8.2.7 Submissions from stakeholders located in the Northern Rivers region noted that, given their distance from SunRice's storage and milling facilities and the associated transport costs of transporting rice to these facilities, the provision for buyer-of-last-resort provides their growers in the northern rice region, no benefit.

Application of the buyer-of-last-resort

8.2.8 The actual operation of the 'buyer of last resort' obligation is less clear. Specific cases or the number of times the obligation was enacted were not disclosed during consultation. While some examples were provided of weather-related damage to grain quality where the obligation may have come into play, The Act, as well as grower contracts and the PPP, all allow for adjustments or exemptions.

8.2.9 SunRice contracts stipulate the right to reject substandard paddy and not pay for it, or accept the substandard paddy at a lower price than the contract price[87]. The grading system measured quality based on approximately 13 quality parameters in the 2020-21 paddy year, with premiums or discounts applied for variation around each of these parameters[92]. This means the price received for the offered rice is commensurate with the quality of the rice being offered. This is similar to other commodity markets where varying grades of production receive a price based on the quality differentials.

8.2.10 SunRice also maintains the dominant position as the supplier of planting seed within the industry. Growers are typically provided a contract to grow rice for SunRice before receiving seed. One of the conditions of the contract is that the rice produced is supplied back to SunRice, with exception to a small number of ABL holders in the Northern Rivers and the Riverina/Murray who source some seed from SunRice and are allowed to hold and store seed subject to the conditions of their ABL. SunRice also controls the variety and type of seed sold to growers which gives the company some control over production, though not necessarily quality. SunRice has developed supply chains for lower quality rice, including for stock feed in exceptional situations and is able to adjust their price for lower quality. This is very similar to the supply chains which exist for most other grains grown in NSW.

8.2.11 Nevertheless, because growers are not easily able to store rice on farm (even if they were legally allowed to) rice does have some different characteristics to other grains and therefore, there is likely some benefit in the buyer of last resort provision. However, it is also evident that these benefits could be maintained without vesting for those looking for market surety, through similar contractual provisions in place at present, where a contract is offered to purchase rice subject to minimum quality standards prior to allocating planting seed.

8.3 Regional economic support and development

8.3.1 Economic and regional development, employment, and investment, are factors which need to be considered in the review of legislation under the NCP Agreement.

8.3.2 In addition to the income that the industry provides rice growers, the rice industry is also a significant employer and source of economic activity in regional areas and has strong linkages to other sectors of the NSW and regional economy including manufacturing, transport, retail, and other service industries. Consequently, a common theme raised in submissions both for and against vesting, and during consultation, was the importance of the rice industry to the State of NSW and in particular, the regional economies of the Riverina/Murray and Northern Rivers.

8.3.3 The presence of the industry and the income it generates in regional areas, provides stakeholders with a sense of financial security which in-turn, promotes and encourages confidence within the broader business and respective regional communities.

8.3.4 Whilst the importance of the rice industry to regional economies was a common theme in most submissions there were divergent views on the influence of vesting to the development of the regional economy of the Riverina/Murray and the Northern Rivers.

8.3.5 Submissions from advocates of the current legislative arrangement, link vesting with the importance of the rice industry to the Riverina/Murray economy, identifying specific benefits such as regional wealth, employment, local investment and community support.

"The fortunes of both the industry and our shire are intertwined, not only as a major direct employer but for the indirect employment, investment and supporting industries activity that are generated in our town and the region".

"[Name removed for confidentiality reasons] recognises the valuable contribution that the Rice Industry makes to our Local and National economy and for this reason supports the ongoing vesting export - SEEL arrangements".

8.3.6 Critics of vesting (predominantly northern NSW stakeholders), view the legislation as a cost to their regional economy, primarily because they argue that vesting is preventing the further growth of the rice industry (see Section 8.10).

"The economic costs are borne by all – growers waiting for certainty to plant more rice, contractors who may hold off employing additional labour and processors who cannot balance risk in the export market".

8.3.7 The integration of the production, commercial, and research arms of the industry in the Riverina/Murray means that the rice industry is a significant direct and indirect contributor to the economy of the region.

"A substantial part of the income generated by SunRice is paid as a component of the paddy price or dividends to growers and shareholders in the Riverina, which in-turn is spent or invested in the region".

8.3.8 Submissions claim up to $400 million in direct payments to the Riverina/Murray economy which includes:

- Direct and indirect SunRice employee remuneration
- Paddy payments to rice growers
- Payments to Riverina/Murray-based businesses covering industries in transportation, logistics, accommodation, and catering.

"If a conservative assumption is made based on 80% of these direct payments expensed on consumer, production goods and services, a multiplier of five times can be applied with the majority of these funds distributed throughout the NSW economy".

"I am very clear as a business owner that we would not have been able to achieve our scale or our success without SunRice".

8.3.9 Stakeholder submissions also note additional regional community support initiatives facilitated by the industry including:

- Employment opportunities, apprenticeships, and training.
- Industry scholarships.
- Community group sponsorship and support.

"When producers' returns decline there is an immediate impact on their families, their communities and the consumers and this impact is not just financial. In thriving communities, people have equitable access to resources and employment. When one company, in this case SunRice, controls the mechanisms through which rice growers produce their crop, then this control has a filtering effect through all aspects of the community and to the consumer".

8.3.10 Submissions from supporters of vesting maintain that the regional economy of the Riverina/Murray, and consequently NSW, would suffer in the absence of vesting.

"We have a real fear that without the certainty of Riverina rice via the vesting arrangements, SunRice will not be able to continue the level of support for the community or regional businesses that have been fundamental to our success, and the success of hundreds of other local businesses".

"Why would you risk losing the equivalent of $400 million dollars in direct payments to growers, suppliers, service industries and staff each year in the Riverina region and up to $2 billion distributed throughout the NSW and Australian economy?"

8.3.11 The rice industry makes an important contribution to the economies in the Riverina/Murray and Northern Rivers. For the Riverina/Murray, based on the data in Figure 4.2, payments to growers and suppliers from the pool fluctuate significantly, with almost $400 million being paid from the pool in total in the CY2018, falling to just over

$100 million in the CY2020. There are additional economic benefits beyond direct payments to growers and supplier, however, it is unlikely that these benefits are solely dependent on vesting.

8.3.12 In the absence of vesting, rice would remain an important crop in the Riverina/Murray, SunRice will continue to operate, and is highly likely to remain the major influence on rice production, milling, packaging and sales in the region. The removal of vesting would provide the opportunity for rice to increase its economic contribution through growth in the Northern Rivers and investment from new participants in the Riverina/Murray.

8.3.13 There is some risk that SunRice would reduce its investment in the Riverina/Murray and/or that rice production declines however, this risk also exists whether vesting continues or not. SunRice has previously adjusted processing capacity and employment levels in response to changes in supply (as outlined in Section 1.7). Growers also adjust their planting decisions in response to seasonal conditions, the price of water, and competition from alternative crops with higher returns. This dynamic is also taking place in an environment in which there is increasing competition for water. Further, growers who choose to grow alternative crops to rice usually do so because the return is higher from the alternative, which generates additional economic activity in the region to replace lost activity from rice.

8.3.14 As noted in Chapter 7, CIE's economic analysis estimated that removing vesting would result in a positive impact on regional economies primarily as a result of improved farm incomes, increased investment and higher employment.

8.4 Industry productivity

8.4.1 At both the farm and industry-level, innovation and efficiency are key drivers of agricultural productivity growth.

8.4.2 A key criticism of statutory marketing authorities is that they insulate producers from the changing demands of consumers, limiting the transmission of price signals, and preventing the development of alternative, more innovative and efficient market structures and marketing expertise. Exposure to competition is one of the main incentives for market participants to innovate.

Innovation and development of new markets

8.4.3 Supporters of vesting suggest that there is no evidence that vesting has stifled innovation in the NSW rice industry, in fact they argue that SunRice is highly innovative, quoting their agronomic and product innovations as some of the main benefits of vesting.

"SunRice's total supply chain control has also been critical to its continued innovation and strong performance".

"A new entrant to the export market would not be able to deliver the level of commercial innovation that SunRice is currently delivering".

8.4.4 Conversely, opponents of vesting argue that competition is critical to driving innovation and investment and hence productivity in the industry will not occur if the market is not free and open.

"SunRice's monopoly has restricted investment and innovation past the farm gate".

"With effective competition, businesses face increased pressures to incorporate new technologies, remove organisational slack and improve their productivity performance".

8.4.5 SunRice's commitment to innovation and investment, both at the farm-level and product-level is evident in the growth of their vertically integrated and multi-faceted business strategy. However, given SunRice's level of influence and investment in the NSW industry, most of the outcomes from such innovation and investment have directly (and logically) benefited their own commercial interests and strategy, independent of vesting. While by design, the business and commercial objectives of SunRice would usually align with growers' objectives, some stakeholders did not necessarily take this is a given.

8.4.6 A similar argument exists for the development of new markets or market segments. Very few submissions from supporters of vesting focused on this issue, but those that did, defended the assertation that SunRice is not exploiting new and emerging export markets.

"[SunRice] is constantly finding new markets and developing existing markets".

8.4.7 An alternate view put forward suggested that while SunRice may have broad connections across export markets, there was also room for differentiated products in these markets, based on a mix of variety, branding, promotion, production credentials and price. This was a key input to the economic analysis conducted by CIE (see Chapter 7).

8.4.8 It is reasonable to assume that no one marketer has the ability to supply all the current and potential markets or market segments for Australian rice, particularly given the highly variable nature of the domestic supply. SunRice states that there is there is unmet demand for Australia-grown rice, indicating that an increase in competition is unlikely to have any material impact. SunRice currently exports NSW-grown rice into 60 different markets worldwide, however, chooses to focus much of their Australian supply on several specific markets as outlined in Chapter 6.

8.5 Development of the Australian domestic rice market

8.5.1 One of the objects of the RMB is 'to encourage a competitive domestic market for rice'. However, opponents of vesting argue that vesting and the granting of the SEEL directly undermine this objective.

8.5.2 Submissions and consultation indicated that the continued regulation of the domestic rice industry creates costs and barriers to new entrants above those created by export restrictions. This is further supported by the economic analysis undertaken by CIE (Chapter 7) which estimates that the domestic restrictions alone will cost between $42 million and $70 million in lost production in NPV terms, over the next six years[24].

8.5.3 Proponents of vesting argue that vesting has no impact on the domestic market because it is deregulated.

"[The domestic market] is a highly competitive market where the vesting arrangements have no impact".

8.5.4 The Australian domestic market has been referred to as 'deregulated' since 2006, however vesting still places restrictions on who can and cannot participate in the market. The inability to export rice may also dissuade additional market entrants, as it limits their ability to manage risk, especially as they are competing in a domestic market dominated by one large player.

8.5.5 Stakeholders identified several costs of vesting which may be influencing the development of the domestic market including:

- prohibitive ABL application and audit process, including divulging financial and market information,
- restrictions on seed retention and supply,
- limited markets and competition from rice imports, and
- the dominance of the SEEL holder in the domestic market.

ABL system requirements

8.5.6 Buyers wanting to participate in the domestic market are required to obtain an ABL[76]. The rationale for the ABL requirement is that as all NSW grown rice is vested in the RMB, they are responsible to ensure that rice buyers will not export rice, except for the SEEL holder, and to carry out compliance activities associated with this requirement, involving the collection of statistical information.

8.5.7 Whilst competition in the domestic market does exist, the very requirement for an ABL is restrictive and can present a barrier to entry to firms wanting to enter the market. Whilst the number of ABL holders has increased over time, to date, these ABL holders are trading only niche volumes of rice. The SEEL holder is the predominant rice trader in the domestic market.

"The domestic market for rice grown in NSW is not fully deregulated and is controlled by the allocation of ABL's by the Rice Marketing Board. This is restrictive and limiting".

8.5.8 Section 51 (1C) of The Act makes it clear that the RMB has little discretion to block the appointment of any ABL holder. Whilst the RMB claims that no applications for a domestic license have ever been denied, feedback from consultation and internal evidence available to the DPI indicates that this process is a barrier to some firms.

8.5.9 The fees and administrative costs associated with obtaining an ABL and incurred by current ABL holders on an annual basis are relatively low. Whilst this fee is unlikely to deter larger players from entering the market, it might discourage smaller firms. The variable annual fee is dependent on the tonnes of rice purchased by the ABL holder.

8.5.10 Stakeholders described the most challenging ABL requirement was the actual process of applying for an ABL. This process requires the provision of financial records which are used by the RMB to assess the financial standing and solvency of the applicant. Whilst this information is reviewed by a separate RMB ABL subcommittee which

excludes the grower elected members, there is a perception that commercial-in-confidence information may be at risk due to the structure of the RMB and its dual-directors with the SunRice Board. This is addressed further in Section 9.1.

8.5.11 In the absence of vesting, the requirement for an ABL would cease to exist. This would mean that any individual or firm who wanted to trade NSW-grown rice could do so without restriction. This would be similar to other grains industries in NSW, which are mainly limited by the supply chain infrastructure available and international market access governed by a mix of product certification, tariffs, quotas, phytosanitary and non-tariff barriers, depending on market.

Competition from imports and dominance of the SEEL holder in the domestic market

8.5.12 There are no trade restrictions on the import of milled rice into Australia, with approximately half of Australia's domestic consumption coming from imported rice. Australia is a staunch supporter of trade liberalisation and competition from imports is a situation that many of Australia's food industries must manage. As outlined in Appendix A, imports provide for the supply of specialty varieties, mostly long grain varieties[46], which are not grown domestically and act as a buffer for the industry, supplementing domestic supply during times of low production.

8.5.13 Neither vesting nor The Act provide regulations regarding imported rice. However, imports represent additional competition for ABL holders who are limited to operating in the domestic market. Supporters and opponents of vesting are aligned in their position that the presence of imports provides a strong competitive influence in relation to NSW rice sold in Australia.

8.5.14 Supporters of vesting maintain that vesting helps the industry to counter the impact of this competition.

"[one of the benefits of vesting] it gives the industry the ability to compete successfully with imported rice".

Opponents of vesting argue that the legislative environment further restricts their ability to compete and achieve scale in the domestic market.

"[We] are not only competing with SunRice with their enhanced production position, but we are also competing with imported products from numerous countries around the world".

8.5.15 In addition to their domestic-grown supply, SunRice is the dominant importer of foreign-grown rice into the Australian market. Between July 2015 and June 2021, SunRice imported nearly 48 per cent of the rice imported into Australia[5]. A further 42 per cent of imports over this period were sourced by Coles, Woolworths and Costco, and other major rice companies such as Uncle Bens (Mars). Small domestic and international suppliers of rice import the remainder to fill gaps in the market for differentiated products.

8.5.16 The RMB notes that SunRice is the market leader in the Australian retail sector[71]. The combination of significant imports based on their international sourcing capabilities and dominance of domestic supply makes SunRice a formidable competitor in the

domestic market. With additional competition from imports, there are significant competitive barriers for ABL holders who are restricted to domestic sales opportunities only.

Restrictions on on-farm storage of rice and control of seed

8.5.17 Under The Act Section 60 (1) and (2), all rice must be delivered to the RMB, or an ABL holder, within a specified period or be guilty of an offence under The Act. Under the current rice vesting and ABL arrangements, rice growers must transfer rice to a licenced storage facility immediately after harvest[76]. As a result, farmers who are not also ABL holders are unable to store rice on farm, either for sale at a later date or as seed for future seasons.

8.5.18 This requirement is partly in place to ensure compliance with the legislation, while also being used to maintain the quality and integrity of the rice industry through the SunRice Pure Seed scheme.

"Vesting has continued to provide the overwhelming majority of NSW rice growers with a pure seed program that underpins Riverina rice quality in global markets".

8.519 However, other stakeholders cited this as a limitation on their businesses. Some stakeholders expressed frustration that this led to a dependency on SunRice for varieties and planting seed, which was further impacted by grower contracts and regulations associated with Plant Breeder Rights (PBR) for certain varieties (see Section 9.2 for further information). Some non-ABL holder growers said this, along with restrictions on market opportunities, limited their ability to invest in on farm storage infrastructure such as silos, dryers, and aeration equipment, to manage their farm businesses in a more flexible manner. As such, business innovation is being restricted by vesting.

8.5.20 Under the terms of a previous SEEL, SunRice was obliged to make public domain seed supply available to ABL holders for the period 1 July 2006 to 30 June 2007. At the time, SunRice was the only entity with public domain rice seed in NSW, so this time period allowed other ABL holders to obtain seed upon the deregulation of the domestic market. After this time, any attempt by the RMB to control who SunRice could sell rice seed to is considered to be a form of control over the domestic market and not contemplated under deregulation.

8.5.21 SunRice does allocate seed to growers as a part of its planning processes. Whilst SunRice is not the only seed provider (other ABL holders can hold and distribute seed), they are by far the largest provider. Subject to seed availability, SunRice allocates seed based on its own business needs and grower requirements. Noting the variability of rice production, the general availability of seed, some varieties in particular can be constrained in times of low production. SunRice must balance its own commercial interests of mill efficiency and market requirements, against the need to conserve an adequate store of seed for subsequent seasons.

8.5.22 This can create issues when multiple parties require access to sufficient seed stocks for planting, and, if such requirements have not been factored into the SunRice planning process.

8.5.23 This limits the ability of other supply chains to optimise their own rice production and markets accordingly, as they are reliant on the varieties and quantity of seed that SunRice makes available for purchase. As noted in 8.5.21 the availability of seed is dependent on stock levels within the SunRice facilities, their own requirements and when another ABL holder approaches them for seed. Nevertheless, with limited capacity of alternative seed providers, the provision of seed is considered a key barrier to growth for alternate supply chains.

8.6 Industry R&D and grower support

8.6.1 Agricultural industry research and development (R&D) programs largely aim to improve farm-gate profitability and productivity. Agricultural extension is provided to enhance farmers' knowledge and skills and provide crucial links to these industry R&D programs. It is widely accepted that such R&D programs in Australia have led to improvement in crop water efficiency. Australian-grown rice uses 50 per cent less water than the global average[11] and enabled the development of specialist rice varieties more suited to Australian conditions.

8.6.2 SunRice, in partnership with AgriFutures and DPI, has funded some various iterations of the Rice Breeding and Grain Quality Program, aimed at providing growers with water efficient and high yielding rice varieties which produce high quality grain suited to consumer markets.

8.6.3 SunRice also maintains a Grower Services unit which directly offers their growers assistance with seed ordering, harvest and payment services, and works in partnership with the AgriFutures Rice Extension team and other service providers to deliver industry extension packages focused on production and environmental benefits.

8.6.4 A significant number of submissions from Riverina/Murray-based stakeholders noted that R&D was a major benefit to the industry. Stakeholders noted that this coordinated approach to R&D and grower extension leads to an improvement in market returns via rapid grower uptake of research findings and new technology. These services also enable SunRice to grow their markets by tailoring variety research to meet specific market demand. Whilst DPI notes that R&D and extension services provide a benefit to growers, SunRice, and the industry, SunRice is not the sole financier of this R&D and will likely to continue to invest in R&D, where it is in line with grower and commercial interests, whether vesting continues or not.

8.6.5 SunRice may choose to cease or reduce their contribution to industry R&D programs and the facilities offered by their Grower Services unit, which are paid for out of the rice pool business, if there is an increase in the level of supply diverting outside the pool or if vesting is removed completely. One submission argues that under deregulation, the focus of the R&D programs may change, switching away from long-term market development:

"It should be noted that without the current Vesting arrangements SunRice would still maintain investments into R&D however they may choose to maintain the intellectual property rights of any new agronomic and technological developments solely for their own use".

8.6.6 Any decision by SunRice to reduce its contribution to R&D programs may come at risk to its commercial interests given the company's significant investment in these programs to date. Even under deregulation, it is expected that SunRice will continue to play a role in rice industry research to support their A Class shareholders' interests, particularly in developing productive varieties to meet their market requirements.

8.6.7 There is a risk that, under deregulation, industry investment in R&D may become more fragmented with potentially more opinions on how R&D investments are spent and, have a less holistic and more commercial focus.

"In the absence of a rice industry regulator and a single desk, it cannot be assumed that rice breeding, extension and pure seed programs would continue to be consumer-facing and focused on market development".

8.6.8 The alternative argument is that the outcomes of these programs to date have already been largely concentrated on accommodating the commercial goals of SunRice rather than taking a broader approach to the development of varieties and supporting agronomic systems which service alternative rice markets outside those served by SunRice. SunRice has contributed significantly to a wide-range of industry-good R&D, however, due to vesting, they have also been the significant beneficiary of such programs. By enabling the industry to potentially broaden its R&D scope, this may encourage new opportunities for productivity improvement and new market development. It is noted that this shift in focus is not solely dependent on SunRice but involves other R&D contributors including AgriFutures and DPI, who represent the broader rice growing community.

8.6.9 Similar to most major agricultural commodities, all rice grown in Australia and delivered to a processor attracts a levy of $6.00 per tonne, $5.94 of which is directed to industry R&D and extension services[27] via Agrifutures and matched on a dollar-for-dollar basis by the Commonwealth Government. Consequently, growers are already significant financial R&D contributors via levies and taxes to achieve this benefit. The recent doubling of the compulsory grower levy for rice indicates that growers are strong supporters of investment in R&D programs and value the role of industry-specific R&D. It is highly likely that these industry R&D programs will remain in the absence of vesting, albeit with possibly different or broader priorities.

8.6.10 The Natural Rice Co also has a R&D focus and maintains similar service programs, including pure seed arrangements for their growers in the Northern Rivers. Grower seed purchases are coordinated in cooperation with the NRRGA, and the company maintains oversight and assistance with planting and harvest operations. The Northern Rivers industry has recently embarked on a R&D partnership with Southern Cross University, aimed at developing rice varieties more suited to the agronomic conditions of the region. In agreement with the Australian Rice Partnership, DPI has provided rice germplasm to assist this program.

8.6.11 In the absence of vesting, under a more competitive marketing arrangement, investment for industry R&D may actually increase upon the entry of new firms or new market opportunities.

8.7 Countering international rice market sensitivities

8.7.1 Appendix A, covers the characteristics of the international rice market. The nature of the rice market means that some of the usual market characteristics which influence supply and demand do not usually apply. This feature is widely noted in literature, with the USDA noting that "while rice is sensitive to many of the same market factors as corn and soybeans, rice markets have a number of idiosyncrasies and are very different from other grain markets".

8.7.2 Desktop research undertaken by the DPI indicates that these 'idiosyncrasies' are largely related to the fact that rice is not a homogenous product with varieties not easily substitutable in some markets and that rice is traded in relatively small amounts compared to other staple cereals such as wheat and corn. As a result, large purchases by a single importer or supply issues in the few exporting countries can have a destabilising effect on the market. Unlike rice, wheat and maize are traded in much larger volumes globally.

8.7.3 The issue of 'distorted' world rice markets were mentioned a number of times in submissions and during consultation. The use of the phrase does not appear to be unique to the rice trade and similar language has been used in the past to describe other global grain markets. The use of the term 'distorted' had broad applications, with some of the key arguments discussed below.

Government controlled import entities

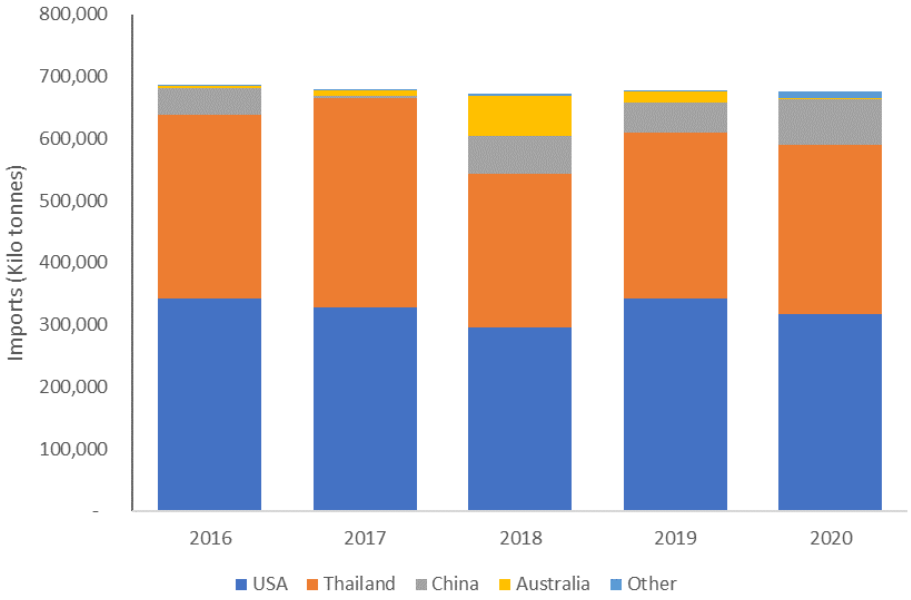
8.7.4 One of the views put forward in support of vesting is that it enables an effective counter to government or State Trading Enterprises (STE) of other countries. The premise of this is that aggregating supply through one channel creates scale and therefore market power, which can be exercised to achieve a higher return. Additionally, in markets with CSQs, the restriction of competition for that quota helps the single entity capture the entire benefits, sometimes referred to as quota rents, rather than having to compete on price to successfully win tenders. Despite this, a single desk is not necessary to achieve quota rent as price premiums can be realised by auctioning off the right to export to those markets.

8.7.5 The STE's primarily impact Australian rice exports in the WTO markets of Japan, South Korea and Taiwan; however, other countries use or have used these structures in the past. Under the rules of entry to the WTO, these markets were required to set up mechanisms for the competitive importation of rice, along with a range of other agricultural commodities, into these countries. The mechanisms set up are largely based around the use of state-run import tender systems, quotas, or both, with these briefly discussed below for key WTO markets.

- **Japan:** This is the largest WTO markets for Australian rice and is obliged to import 767,000 tonnes of foreign rice annually under the Minimum Access (MA) obligations of the WTO. The market accounts for approximately 9.8 per cent of Australian rice exports since 2016[5]. This market operates two tender systems for rice sales as discussed in Chapter 6. The United States and Thailand are the largest contributors to this market, while China has increased market share dramatically since 2018 with most of the rice being allocated under the OMA.

Australia is typically the third or fourth largest exporter to Japan, although at modest volumes comparatively speaking (see Figure 8.1). The Japanese STE arrangements are not unique to rice, with wheat, barley and dairy also subject to forms of import control by Japanese STE's or other domestic organisations, and Japan being a major market for Australian exports in all three of these products[50; 28; 14; 99].

Figure 8.1: Japanese rice calendar year rice imports[97]



- **South Korea:** Tariff Rate Quota's (TRQ) are the primary border restriction mechanism in this market, with an obligation to import 408,700 tonnes annually under the WTO. South Korea's state-backed Agro-Fisheries & Food Trade Corporation administer the tender system[56]. South Korea remains a relatively small market, making up anywhere from 4.1 per cent of Australian rice exports since 2016[5]. From the 1st of January 2020, Australia received a 15,595 tonne TRQ with tariff's set at 5 per cent in quota, while a 513 per cent out of quota tariff applies[53]. Australia has met or exceeded this level 3 times in the last 16 years[5]. Under the Korea Australia FTA (KAFTA), wheat enjoys tariff free access to South Korea. Malt barley operates under a 30,000 tonne TRQ with 30 per cent in quota tariff as well as a new CSQ beginning at 10,824 tonnes under KAFTA with all quotas and tariffs for barley to be phased out by 2028. Dairy also operates under various quota and tariff arrangements, however rice was deemed a sensitive product and excluded from the FTA[30].
- **Taiwan:** Australia has a CSQ of 18,634 tonnes to Taiwan annually, although Australia has only achieved this level once since 2007. Taiwan is a small market for Australian rice, with approximately 3.5 per cent of rice exports destined for the market since 2016[5], with rice remaining a sensitive product in Taiwan. Taiwan operates a Simultaneous Buy Sell (SBS) tender system through STE[101].
- **Other markets**: a range of additional government policies present barriers to Australian rice exports including price controls (PNG, Solomon Islands, Fiji and French Polynesia), import licensing restrictions (Hong Kong, Singapore) and

tariffs (Thailand, Philippines, EU, USA)[73]. It should be noted that most of these markets, except for the Pacific Majors, are not significant markets for Australian rice, however these barriers may be one of several factors hindering development.

8.7.6 The effect of competition on Australian rice exports in these markets would depend on a number of factors including the other exporter's ability to achieve the scale to meet tender bid volumes and quality, and whether they will be offering a generic substitutable product or targeting a different product segment, which are further discussed in the Chapter 7. Nevertheless, under a deregulated rice industry the most likely scenario is that SunRice would remain the core aggregator of Australian rice for export. Some smaller rice exporters are likely to emerge but would compete with a differentiated product segment to SunRice.

8.7.7 It is also possible that the removal of vesting may offer an opportunity for other exporters to maximise the utilisation of quotas, especially if different cost bases and product differentiation were to occur.

8.7.8 As detailed in Appendix A, the sensitivities of the global rice industry are one reason the industry maintains a higher level of producer subsidies than other commodities. The benefit of the Australian industry being able to compete in sensitive rice markets was noted by submissions, all of which were in favour of vesting. Some submissions described the complexities of the international rice trading environment, which features government-controlled single import and export desks, various tariffs, quotas, and government subsidies. None of these submissions, however, described how vesting or the SEEL specifically assists the industry to manage or overcome these trade challenges.

"Australian growers receive no subsidies or tariff protections from the government, unlike growers in the USA and other major rice producing nations".

8.7.9 The issue is consistent with several conversations the DPI had with growers and industry organisations during consultation. The idea that the industry does not compete on a "level-playing field" was put forward numerous times during consultation, suggesting that vesting was required to bring equity to export transactions.

8.7.10 All Australian grain exports face differing levels of trade barriers. Estimates suggest that global subsidies and trade barriers could be costing Australian agriculture between $8 billion and $10 billion in exports annually[47]. Whether Australian rice exports face a significantly greater level of trade barriers is difficult to assess given the variation and impact of different measures, however it is likely that, given Australian rice is exported as a milled and processed product, not as a bulk commodity like most other grains, higher levels of protection may be imposed as countries attempt to protect their domestic milling and processing industries.

8.7.11 Vesting may enable the Australian industry to better negotiate in some sensitive international markets based on the benefit of scale and exclusive use of the Australian branding in the international rice market (explored further in Chapter 6). However, it is unlikely that the scale achieved by SunRice would be lost in the absence of vesting, nor that competition of scale would emerge in the Australian market.

Impact on trade relationships

8.7.12 Rice has been excluded from the market access outcomes of some of Australia's FTAs reflecting the domestic sensitivity of some key markets. Australia currently has 15 FTA agreements with 26 countries[31] and rice has been specifically excluded in four of these agreements (with Japan, Malaysia, South Korea and Thailand)[73]. Australia has also gained favourable market access under the Australia-United Kingdom FTA, with all quotas and tariffs eliminated for short and medium grain Australian rice exports to the UK[32]. The Australian Department of Foreign Affairs and Trade (DFAT) noted in their submission that, except for the European Union (EU) FTA (still currently under negotiation), key trading partners did not raise substantive concerns with the RMB during these negotiations.

8.7.13 However, in the case of the still to be finalised EU FTA, DFAT note:

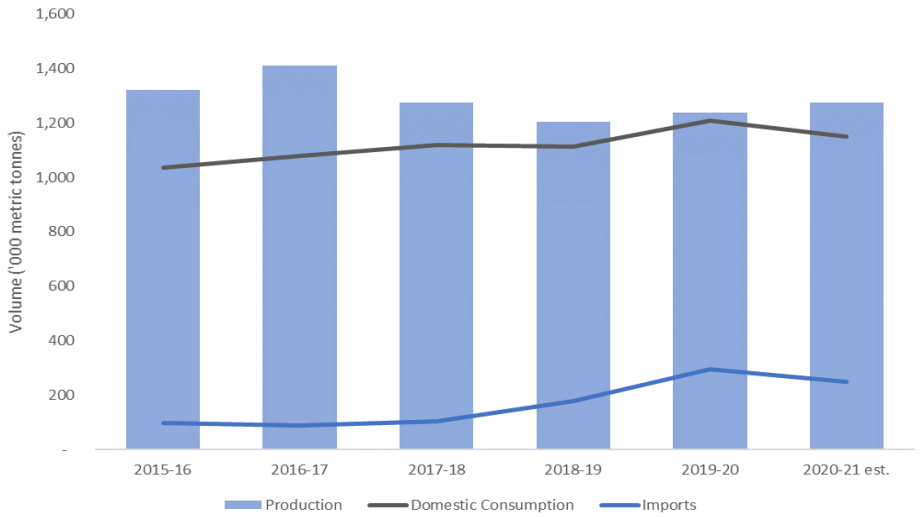
> *"[The EU] has claimed that the RMB provides NSW ricegrowers with an unfair advantage in marketing and pricing exports".*

8.7.14 DFAT stated in their public submission that during negotiations the EU has made a proposal which would prevent Australia from maintaining an export monopoly including the existing RMB export arrangements on the basis that they believe the RMB provides NSW ricegrowers with an unfair advantage in pricing and marketing of exports. They also noted that, given rice is a highly sensitive and protected commodity in the EU market, that it is unlikely that Australia will be granted significant new market access for rice to the EU under an FTA[33].

8.7.15 **[Redacted]**

8.7.16 The EU is a significant market, with an estimated 2.43 million tonnes of rice consumed per annum on average of which 1.1 million tonnes was of *Japonica* varieties. The EU imports an estimated 240 thousand tonnes of *Japonica* rice per annum on average to meet its internal demand[40]. This is broadly consistent with SunRice's submission to the EU-FTA process which noted EU demand for *Japonica* rice at 1.32 million tonnes of which Australia previously had access to a tariff-rate quota (TRQ) of 1,019 milled tonnes (revised to 240 tonnes following Brexit), or less than 1 per cent of EU Japonica imports[80; 16].

Figure 8.2: EU rice supply and demand[41]



8.7.17 DPI conclude that the retention of vesting arrangements is likely to restrict improved market access to the EU under the FTA however, the quantum of any increased access likely to be foregone is impossible to determine without knowing the willingness or the degree to which the EU may make concessions in the absence of vesting or the STE.

8.7.18 In addition to FTA's, DFAT also pointed out that some trading partners have raised concerns with the RMB in the context of WTO negotiations and in relation to the administration of existing WTO TRQ's. DFAT did not consider that the existence of the RMB has had a significant impact on WTO rice market outcomes however, it has been used to disadvantage Australian rice in the administration of existing TRQs.

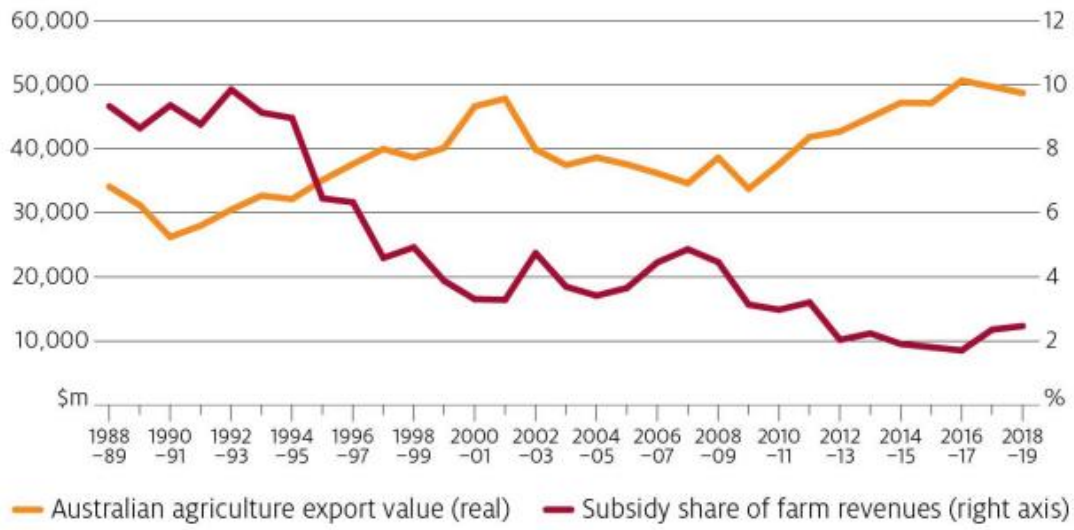
8.7.19 Even though the impact is estimated to be slight, it is important to note that, even in the event of deregulation, the opportunity to negotiate a better outcome for rice under our existing FTA's has closed.

8.7.20 The Australian Government has reformed all agricultural state trading organisations at the Commonwealth level with similar reforms replicated at the State and Territory level, except for the RMB. Vesting and the maintenance of the SEEL means that the RMB is an STA. Furthermore, DFAT notes in their submission that:

"The RMB is the only remaining agricultural STA with statutory export monopoly power and that Australia is one of only a few developed World Trade Organisation Members to maintain a body with such power."

8.7.21 Research conducted by ABARES indicates that keeping subsidies low is important for both Australian producers and international markets. While Australian farmers are some of the least subsidised in the world, Australia's reform experience shows that deregulating the agriculture sector and removing distorting forms of support spurs overall sector growth, increases participation in global markets, and increases the contribution agriculture makes to the rural and national economy[47]. It is possible that vesting could be preventing or distorting further development of the rice industry or sub-sectors of the industry. This issue is discussed in further detail in Section 8.5.

Figure 8.3: The evolution of Australia's support has helped drive agricultural exports[47]



Notes: The OECD measures agriculture subsidies as a share of gross farm receipts. This measure accounts for all the market revenues of farmers, along with any indirect payments that may be received through government concessions, such as concessional loans.

8.8 Quality assurance and industry reputation

8.8.1 Management of quality standards is an important consideration for all Australian agricultural exporters. Australia's reputation as a quality producer of clean, green, and safe produce has created high global demand for our food products. Part of the success of the Australian rice industry, and other agricultural commodities, has been the ability to create a reputable competitive edge in the global marketplace with the supply of high-quality grain. This involves the development of varieties which meet the identified grain quality specifications of existing and new markets and the quality standards imposed during the production, storage, processing, and logistics stages.

8.8.2 Some submissions supportive of vesting mentioned that the legislative arrangement enabled SunRice to maintain and assure the reputation of the Australian rice industry and quality assurance, although mostly with limited discussion.

8.8.3 Submissions which elaborated on this point largely attributed this benefit to the vertically integrated structure of SunRice and the company's rice market knowledge and expertise.

"SunRice's ability to oversee production from "paddock to plate" ensures that its varieties and products are developed specifically to service the needs and tastes of the highest value international markets".

8.8.4 SunRice has made a considerable investment in ensuring quality of product through the Pure Seed Program, traceability systems, Sustainability Framework, and product quality standards.

8.8.5 The vertically integrated structure of SunRice facilitates input and oversight into each step of the value chain however, there is little evidence to suggest that similar outcomes could not be achieved by multiple providers within the supply chain. In fact, in a more competitive market, it would be an imperative that any supply chain can meet minimum

quality standards. Comparable processes are conducted by numerous private and public companies operating within Australian agricultural value chains to meet market quality specifications. In addition, new market segments may also be opened where a participant is able to exploit higher quality standards or different product attributes than currently on offer.

8.8.6 A few submissions suggest that removing vesting or granting additional export licenses could undermine future rice exports because other sellers may not necessarily employ the same level of attention that SunRice do with regards to quality control and assurance.

"The introduction of additional exporters who do not apply the same level of oversight to this process will potentially jeopardise the perceived value of Australian rice in overseas markets".

8.8.7 However, quality is ultimately up to the market to determine and any exporter unwilling to meet market expectations will likely be unable to maintain required demand.

8.8.8 Vesting and the SEEL have afforded SunRice the benefit of scale to establish industry-wide quality assurance systems. This does not mean they are mutually dependent, into the future. Even if SunRice's market share is reduced, it is reasonable to assume that the company will continue to maintain its high-quality standards. Not do so would place their products at a significant competitive and commercial disadvantage.

8.8.9 While some quality attributes are certain, objective and observable, such as grain size, shape and colour, others are subjective and dependent upon the perceptions of consumers (like labelling and branding). These topics are discussed in more detail in Chapter 6.

8.9 Direct costs of rice vesting

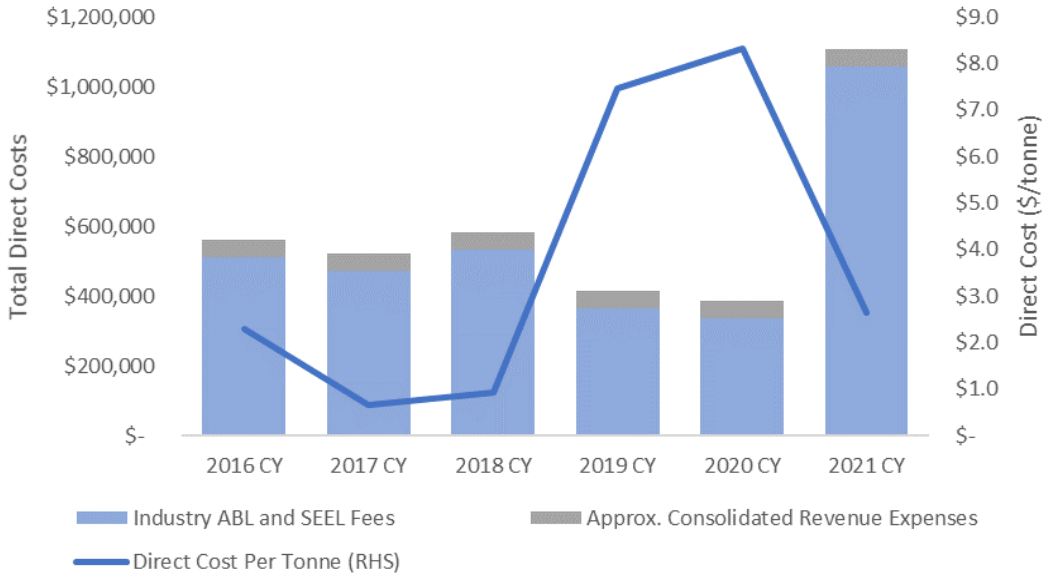
8.9.1 Over the last five years, the RMB has recorded operating costs of around $500,000 per annum and revenues of between $335 thousand and $1 million[74]. For calculating the direct costs of the RMB, revenues are used as these are transfers from the industry to the RMB and as such, are no longer available to be returned to grower.

8.9.2 The industry funded revenues are used to maintain the Board's operating and other expenses, with the largest expenses being employee wages (38 per cent of total expenses in 2020-21), and RMB board member fees and superannuation (32 per cent of the board's expenses in 2020-21). DPI has estimated an internal annual cost of 0.33 of an FTE (plus on costs) for RMB support which is funded from NSW Government consolidated revenue. These direct costs are conservative given there are further direct costs which are more difficult to account for such as:

- NSW government resources allocated to five yearly reviews of the legislation,
- costs of economic consultants engaged either by the rice industry or the NSW government to review vesting, and
- industry overhead costs allocated to vesting regulatory matters including annual audit, RMB monthly updates, RMB verification analysis and support among others.

8.9.3 RMB revenues are mostly funded from industry fees charged for the SEEL and ABL's; however, this is supplemented with some minor investment revenue. When the total direct costs (industry and public) calculated are apportioned on a per paddy tonne basis, the costs of operating the RMB have fluctuated greatly due to highly variable supply related to drought. Costs per tonne have ranged from $0.70 per tonne in the CY2017 to $8.30 per tonne in the CY2020 when only 46 thousand tonnes were produced. The direct cost over the past 6 financial years was calculated as $3.7 per tonne on a simple annual average basis or $1.6 per tonne on a volume weighted basis.

Figure 8.4: Estimated direct costs associated with vesting[74; 36]



8.10 Specific constraints on the Northern Rivers rice industry

8.10.1 The restrictions and costs which vesting imposes on rice growers outside of the Riverina/Murray region has been well-documented in past vesting reviews and other reports which reference the current legislation. Submissions and feedback from consultation to this Review indicate that these impacts remain acute. Submissions from stakeholders located within and associated with the Northern Rivers regional industry, including current growers, industry groups and service providers, argue that the current vesting arrangements, and their inability to export rice, is detrimental to the industry and wider community.

Industry growth

8.10.2 Submissions from Northern Rivers stakeholders argue that, by being constrained to sell their rice only into the domestic market, vesting is impeding the growth of the Northern Rivers rice industry.

"The lack of confidence and the absence of a supported fair regulatory environment created by vesting and the SEEL is a significant barrier to the Northern Rivers rice industry being able to achieve its full economic, social and environmental potential".

8.10.3 Other submissions argue that the Northern Rivers rice community is marginalised under the current regulatory and administrative framework because, despite being NSW rice growers, they are effectively geographically excluded from any of the benefits that vesting may provide. The SunRice receivals facilities are all located within the Riverina/Murray region over 1,000 kilometres away, and the road freight costs, in addition to the risks to rice quality, of transporting paddy or milled rice this far, are prohibitive.

"By design, the benefits of rice vesting accrue solely towards the Southern rice growing region".

"Logistically, it is not possible to transport harvested paddy rice over 1250km into the Riverina. The cost for this transport route is approximately $150 AUD per paddy tonne. The long transport route, and the additional layers in the supply chain create a heightened risk or deteriorating product quality, as high moisture paddy rice requires drying as close to harvest as possible".

8.10.4 As outlined in Appendix A, the Northern Rivers region has historically produced only small quantities of rice ranging from 200 to 4,000 tonnes since 2010-11[73]. However, the potential for growth has been identified and is supported by industry stakeholders in this region.

8.10.5 Submissions from Northern NSW industry stakeholders, indicated that there is a definite and deliberate intention to grow their industry, provided the current legislative restrictions are lifted. Current growers expressed their interest in expanding their rice-growing operations. This view was supported through consultation which indicated that demand for production contracts exceeded the level offered. Many have parts of their farms which are not suited to other crops, so rice presents a good expansion option for existing growers and an opportunity for new growers.

"We were successful in growing dryland rice last season and would like the opportunity and option to further increase our supply. We have the capacity to grow and supply a much larger crop, however, to continue to grow rice, we will need to implement new farming practices and purchase and upgrade machinery. To surmount the associated costs, we would like support in the marketing of rice based in our region and an assurance of an increase in the amount the miller/processor may purchase from the grower".

8.10.6 Northern Rivers growers also have the support from the wider industry and regional community, with service provider submissions also indicating their intentions to expand processing hubs to accommodate additional tonnages of paddy and processed rice and fund additional warehouses and packing machinery, should they gain access to the export market.

8.10.7 Despite its smaller size in comparison with the southern rice industry, the impact of the rice industry on the Northern Rivers region is worthy of note.

"The Northern Rivers Rice Industry provides social and economic benefits to the region employing people in various sectors including, but not limited to, rice growing, rice processing, rice transport, and rice agronomy".

"The Northern Rivers rice industry is growing. Farmers, transport operators, agronomic businesses, processors and marketers have all made recent investments in their own rice

businesses and are committed and confident in their ability to successfully grow the crops, process and value add the product and further expand the industry".

8.10.8 Proponents of vesting (from stakeholders located within and associated with the southern rice growing region) view that, given the small volumes of rice produced in the Northern Rivers region, the risk of removing vesting in the face of unproven future production claims is putting the entire NSW industry at risk, in addition to the other risks claimed by increasing export competition.

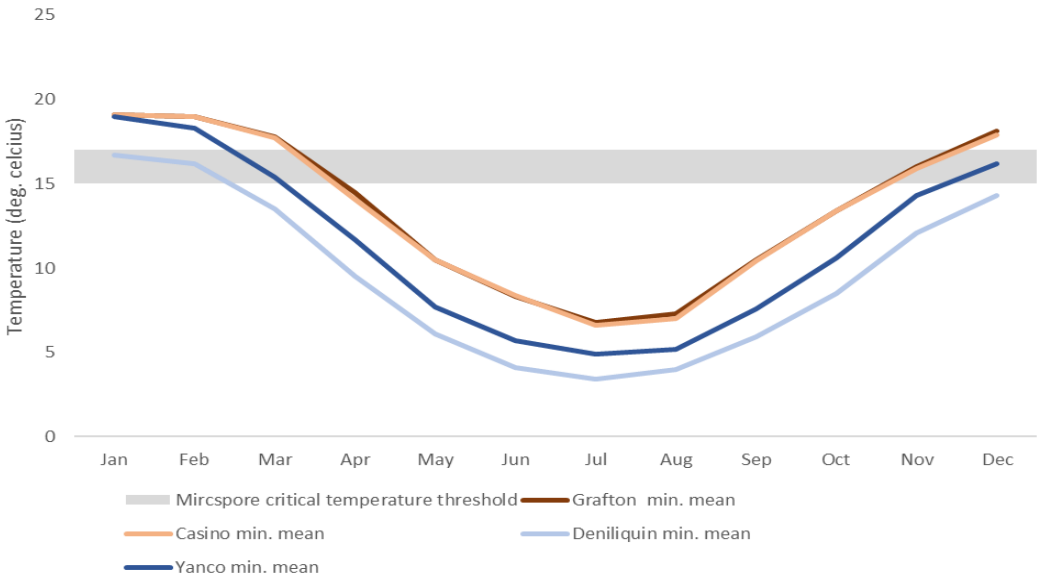
"It would seem that the Northern NSW growers' argument is therefore more about their lack of scale than it is about the merits of vesting".

8.10.9 In response to this argument, NSW DPI sought to independently validate the future production potential of the region as part of this Review. During consultation, NSW DPI obtained information on regional agronomic practices and alternative crops and gained valuable insights into the level of support for future industry growth from growers and industry service providers.

Assessing the opportunity

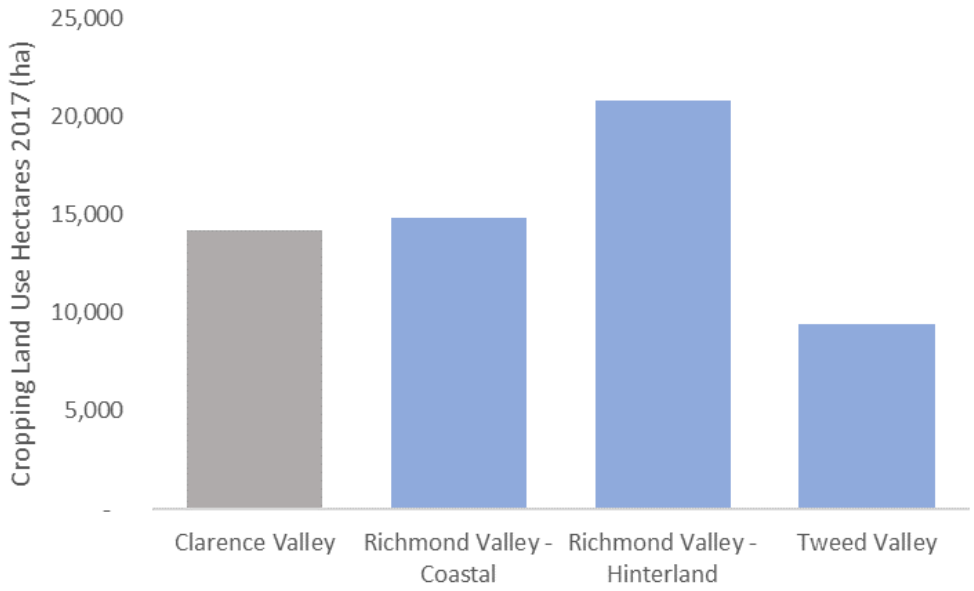
8.10.10 The first step was to assess the climatic suitability of the Northern Rivers region. Water was not considered as this is a key differentiating feature of the rainfed production system in the Northern Rivers. The other key limiting factor of the rice production potential is overnight mean minimum temperatures. These temperatures impact a key reproductive phase of rice plant growth, known as microspore[34]. When comparing a range of Northern production region weather stations data, the minimums are at least the same or higher as the Southern production region and are higher for longer. However, it is also acknowledged that the Southern region is able to mitigate these cold temperatures with the application of deep water around the sensitive period, which is unavailable to growers in the Northern production region. Hence, this is one reason for more volatile yields than in the south.

Figure 8.5: Regional minimum low temperatures and microspore thresholds[22; 34]



8.10.11 Given the main limiting climatic factor of cold temperatures is not a barrier to rice production, further analysis was conducted to identify minimum suitable land capacities in the Northern region. To do this, an intersection of identified Statistical Area 3 regions were overlayed with land use mapping data from 2017. The regions identified included existing rice producing regions of the Richmond Valley (including the hinterland) and Tweed Valley. The Clarence was also identified to have some potential however, it was noted that this region was largely untested and may have increased risk of cold overnight temperature impacts. The intersection was limited to cropping land, which would be at the minimum suitable for rice production. Excluding the Clarence Valley, the area of cropping land available was estimated at 44 thousand hectares, and once the Clarence Valley was included, the area increased to 59 thousand hectares.

Figure 8.6: Northern Rivers cropping land use 2017[38]



8.10.12 Another factor in assessing the possible rice production was the relative returns available for rice compared to alternate land uses. For this, DPI referred to the analysis provided in the CIE report, which compared GMs for rice, soybeans and beef production. The GM budgets used were independently sourced and from different years, yet even under a low estimate, rice had a GM of $850 per ha compared to soybeans of $360 per ha. This indicates that even on conservative basis, some growers would more than likely transition to rice growing over time.

8.10.13 Using an assumption of 5 per cent of land area converting and a low yield of 4.5 tonnes per ha, the production potential of the Northern Rivers, excluding the Clarence Valley, is conservatively estimated at 10,124 tonnes per annum. Using a moderate assumption of 10 per cent land conversion to rice and a higher yield of 7 tonnes per ha, the production potential of the region, including the Clarence Valley, is estimated at 41,446 tonnes. These estimates are within the range of area that has been put forward through consultation and more conservative than the 50,000 tonnes estimated in the identified in the 2018 report "Expanding the New South Wales rice industry"[13].

8.10.14 This does not address all the challenges of rice production and there are many factors that influence farmers' decisions to grow rice including the relative returns compared to other land use activities, sophistication, machinery and infrastructure, and risk

appetite. However, through investigations conducted, it was clear that there is unmet potential for rice production in the Northern Rivers. This is based on the suitable climatic conditions present in the Northern Rivers production region, availability of suitable land and the relative GMs for rice compared to other land uses as analysed in the CIE report.

Market risk

8.10.15 Selling products into different markets can help firms reduce their dependency on one market and consequently reduce their market risk. Stakeholders from the Northern Rivers indicated that lack of access to the export market is limiting their ability to manage their market risk.

8.10.16 One of the main arguments used by supporters of vesting to justify the ongoing market restrictions is their belief that the opportunities in the domestic market should be enough to satisfy the market requirements of other sellers, including the Northern Rivers industry, given their relative size compared with the southern rice industry. They argue that the domestic rice industry is the highest value industry for Australian rice and hence this should be satisfactory for the Northern Rivers requirements.

"With a domestic market of 300,000 tonnes, finding a home for 7,600 tonnes in [the domestic] market should be easily achieved. With respect to an export market potential, [name withheld for confidentiality reasons] believes that tonnages harvested at this level, would not be viable to invest in developing export markets".

"The couple of thousand tonnes grown on the north coast have full access to the Australian market and I wish them well, but not at the expense of over one thousand growers in southern NSW".

Whilst the Riverina/Murray is the only place in Australia where the industry operates at any significant scale, scale should not preclude any potential exporter from having the opportunity to participate in the export market.

8.10.17 This view also overlooks the competitive nature of the domestic market. The structure of the Australian domestic market, including competitive dynamics, is discussed in more detail in Appendix A. It also does not consider the dynamics at play in the domestic market and that the Northern Industry, like any other industry, would like the opportunity to be able to manage their level of market risk as they see fit, in this case, via access to the export market.

"As average production of rice in Australia is generally greater than consumption, it is imperative to find other avenues where local rice growers can enter markets outside Australia".

9. Additional issues

9.0.1 In addition to consideration of the benefits and costs of vesting, several other matters were also raised, both in submissions and during consultation, which suggested that there were a number of indirectly related issues which needed to be addressed.

9.1 Accountability and transparency

9.1.1 The RMB, as described in The Act, is accountable to the NSW Parliament and the Minister. The Act and the vesting arrangements confer significant industry power and responsibility upon the RMB. In addition, the RMB has appointed SunRice as its agent, effectively allowing SunRice the sole right to export rice produced by NSW growers, operate the pooling system, and oversee payment to growers. Under the current vesting arrangements, SunRice is accountable to the RMB, the NSW Parliament, and the Minister.

9.1.2 The issue of the need for accountability and transparency in this system has been addressed by a number of past vesting Reviews. Similar issues have been raised on several fronts during this Review.

Governance

9.1.3 There is cross membership of the Boards of SunRice and the RMB. Under the Agency Agreement, two of the elected grower members of the RMB (previously three) are provided reciprocal rights to be appointed a director of the SunRice Board, provided under the SEEL. The intended objective of this arrangement is to provide the RMB with ongoing knowledge of the operations of SunRice and allow the RMB to assess the effectiveness of the activities of SunRice on a continuing basis.

9.1.4 During the 2016 rice vesting review, concerns were raised by stakeholders in relation to potential and perceived conflict of interests arising from this governance structure. As a result, one of the recommendations was that an independent review of the RMB be undertaken to ensure any risk of conflict of interest was appropriately addressed. This independent review was finalised in 2018. The review found that structure and governance of the RMB had not displayed any practices to suggest a breach of conflict-of-interest principles. However, a number of recommendations and actions were implemented with the aim of strengthening the governance arrangements by reducing the potential for conflicts of interest to arise and to address perceptions of access to commercially sensitive information for dual RMB and SunRice directors[35].

9.1.5 Despite the findings and recommendations of the independent review, the issue of cross directorships continues to remain a concern for some stakeholders, as indicated by the number of stakeholders who raised the issue in their submissions to this Review and during consultation. Submissions indicate that there are ongoing doubts of the RMB's independence and of its ability to objectively meet its statutory obligations.

"In my view, there is a lack of governance and independence around the process".

"There is a perceived conflict of interest as the RMB is influenced to pursue the interest of SunRice. There is significant uncertainty as to whether the industry can grow whilst the RMB and SunRice are so heavily intertwined".

9.1.6 It is evident that the RMB has a close relationship with SunRice, heightened by the cross-directorships of both boards. The DPI understands that the RMB utilises its close relationship as a means of monitoring the performance of SunRice in meeting its obligations under The Act however, the close relationship of the RMB and SunRice is creating a perception of conflict of interest. Given one of the RMB's own objects is "to liaise with and represent the interests of all NSW rice growers in relation to the Board's functions and objects", this stakeholder feedback should be addressed.

Transparency of information - data

9.1.7 Given the restrictions on competition enabled by vesting, it is reasonable to expect a high level of scrutiny of the arrangements. In this light, the effectiveness of any review process is directly related to the evidence and information available to the reviewer. In the case of vesting, this includes a substantial amount of industry information and data, as well as evidence provided in submissions and during stakeholder consultation.

9.1.8 In order to deliver a fully informed and comprehensive review of vesting, both the DPI and CIE solicited a broad range of data from stakeholders, including SunRice and the RMB, to inform and support both the qualitative and quantitative analysis and to help validate evidence provided to the Review. Whilst some information and data were provided, some important data was not provided, resulting in some data-gaps. This was primarily due to concerns with the possibility of competitors gaining access to information through the *Government Information (Public Access) Act 2009* (GIPA). Data not supplied was mostly in relation to the supply chain costs and sales information, attributed to the Growers Pool. This was one, but not the only limitation on the number of markets that could be tested for market power using econometric methods. The Review team would like to stress that SunRice made key representatives available for consultation and was a cooperative contributor in the Review, however a solution that addressed their confidentiality concerns could not be found for some key data requests.

9.1.9 A range of alternative data sources were utilised to try to fill such gaps (outlined in Appendix E). Despite the gaps, the data which was provided by industry was relatively comprehensive and enabled a much more thorough analysis of the impact of vesting than has been possible for previous reviews.

9.1.10 Issues relating to access to data and information are not isolated to this Review but also extend to the RMB verification process. It was apparent that the RMB has also had trouble accessing suitable data required from SunRice to undertake its annual verification tasks, with work arounds put in place to satisfy the SEEL holder. SunRice is a major beneficiary of NSW vesting legislation, and, whilst the DPI acknowledges the commercial sensitivities relating to some of this data, SunRice, the RMB and the industry as a whole, must remain cognisant of the level of public accountability required in reviewing, analysing and providing recommendations on policy and legislation.

9.1.11 This highlights the issue created when government policy affords a private organisation operating in a commercial environment, competition restricting legislation. The NCP review guidelines place the onus of proving that vesting delivers net benefits to the

community on advocates of the legislation. However, the main beneficiaries are commercial entities with legitimate concerns regarding the confidentiality of commercially sensitive information which is needed to confirm whether there are, in fact, net benefits. The unavailability of information for commercially sensitive reasons hindered the review team's ability to fully assess some of the benefits of vesting.

Transparency of information – communication of the attributes of vesting

9.1.12 Previous vesting reviews have indicated strong support for vesting and the retention of the SEEL. This is usually cited by proponents of vesting as obvious evidence in favour of the current legislative arrangements. However, in conducting this Review, it became evident that for some industry stakeholders, including rice growers, they are provided with insufficient information to properly assess any benefits from vesting.

"Good commercial and business-orientated growers ask very clear questions around the makeup leading to the assumptions and cannot get clear answers".

9.1.13 As noted in Chapter 6, the annual process undertaken by the RMB to verify the extent of the EPP and FSA raises questions, such as:

- how the claimed price premiums and FSA are attributable to vesting rather than other external factors,
- the benchmark prices and methodology used are chosen by SunRice, the holder of the SEEL and main beneficiary of the legislation,
- some benchmark prices used do not compare like-with-like; and
- limited consideration is given to the counterfactual, and as such, the reports imply that the claimed price premiums and FSA benefits would disappear without vesting.

9.1.14 These verification reports are commissioned by the RMB and provide the bulk of the evidence of EPPs relied on by the industry to justify vesting. This information is communicated to growers and stakeholders in an Annual Grower Report, circulated by the RMB, and regularly referenced in other industry settings and communications. However, these reports are brief and provide little context or discussion.

9.2 Access to seed

9.2.1 A small number of submissions have raised issues relating to funding for rice varieties and access to these varieties, referencing a lack of clarity over how rice varieties are treated under past and current industry breeding programs.

"Every rice grower in NSW contributes equally on a pro rata tonnage basis to the levies for R&D in addition to the Government on a dollar-for-dollar contribution to the pool of funds. Despite this contribution by all rice growers, the only recipient of the Plant Breeding Rights (PBR) for use and control of new varieties that are bred with these funds is SunRice. At the very least [every grower] should have equal rights and access to those varieties on the basis that they have equally contributed to their development".

There is currently a small percentage of the Rice Breeding and Quality Project invested in specialty rice development. To date, none of this investment (mostly public) has resulted in any commercially available varieties due to direct resistance by the three stakeholders to limit competition. Whilst this is not directly limiting rice marketing, it definitely has tangible and indirect impacts on the possibilities".

9.2.2 The Australian Rice Partnership breeding program is a three-way agreement between DPI, Agrifutures, and Rice Research Australia Pty Ltd (RRAPL – which is a wholly owned subsidiary of SunRice). The breeding program grants SunRice the option to secure Plant Breeders Rights (PBR) to rice varieties with commercial value in exchange for their financial contribution.

9.2.3 PBR are exclusive commercial rights for a registered variety of plant. They are a form of intellectual property and grant the holder exclusive rights to that variety for 20 years (in the case of rice) from the date a PBR is granted[52]. Some unrestricted varieties which are no longer protected under PBR also exist and are available as Public Domain Seed.

9.2.4 Varieties protected by PBR account for the majority of rice production in NSW (see figure 9.1). SunRice has not permitted growers to sell these varieties to other buyers as a condition of purchasing seed. This provides a competitive advantage for SunRice to maintain its position in the Australian market in the absence of vesting.

Figure 9.1: Production share of PBR varieties[95]

[Chart redacted]

9.2.5 Other non-PBR varieties grown in southern NSW include Doongara, Langi, Kyeema, Amaroo, Langi and Koshihikari, Illabong, which are all in the public domain. However, access to planting seed remains a challenge, as most commercial quantities are held by SunRice.

9.2.6 SunRice is expected to continue to receive the majority of NSW rice production due to the high proportion of production of PBR protected rice varieties.

10. Findings

Rice vesting review findings

The NSW rice industry, like the agricultural sector as a whole, faces ongoing challenges and change. For the rice industry, this is even more acute, as a combination of reduced water supplies following reduced yields and reforms, low water allocations leading to high water prices, and the advance of alternate crops in the Riverina/Murray have emphasised the need to ensure the industry remains as competitive as possible. The challenge for growers, industry and the NSW government, is to ensure that our agricultural industries are in the best position possible to react and respond to those challenges and to exploit emerging opportunities. This Review is aimed at assisting industry and government to ensure that any legislative arrangements remain fit-for-purpose and help create an environment that encourages a competitive, modern and progressive rice industry for all NSW rice growers.

As noted at the onset of this Review, good NSW government policy development and the Intergovernmental Agreement on Competition and Productivity Enhancing Reforms requires that if a regulatory restriction on competition (such as vesting) is to remain, then it must be demonstrated that its retention is in the community's best interest (net benefit). While vesting is a nuanced and complex topic, identifying the costs and benefits of the legislation is imperative in making informed and objective recommendations on the future of these arrangements.

As mentioned in Chapter 3, stakeholder input to this Review has demonstrated that the industry has difficulty separating the benefits which may arise from vesting with those that exist due to the commercial structure and successful business management of SunRice. The issue of attribution is one that various vesting reviews have struggled with answering and one that this Review specifically intended to address.

Both DPI and the CIE economic analysis have addressed a range of cited benefits and costs of vesting, informed by data, analysis and opinions provided by industry, stakeholder submissions and feedback from consultation.

With regards to price premiums, there are many factors that determine the export price achieved by SunRice in each of their key markets. The SEEL and vesting arrangements are just one of these potential factors. The evidence provided to support both the qualitative and quantitative analysis confirms that, whilst it was evident that the SEEL holder does achieve higher prices than its direct export competitor of California in most regional markets, the 'price premiums' can be explained by a range of external factors. Some of these factors include targeted product placement into high value markets, packaging and freight differentials for each supply chain, branding and quality differences, year-round supply and successful commercial management.

When testing for the presence of market power, the economic analysis concluded that although Australia had the highest level of market power in the New Zealand market, there were similar levels of market power for other major suppliers in the New Zealand market. It was noted that Australia enjoys a high market share, an established market position with retailers and food service, and relatively close freight proximity to the New Zealand market, which suggests that the SEEL is not necessarily the principal determinant of any market power.

Despite the Review finding the presence of price premiums in the Middle East, CIE concluded there was no evidence of market power in the Saudi Arabian market (i.e., Australia faces perfect competition in this market).

With regards to economies of scale, vesting has encouraged the vertically integrated structure of the southern NSW rice industry through a coordinated grower led marketing structure. There is a strong likelihood that vesting has also enabled SunRice to achieve a level of scale which may not have been possible in the absence of vesting. While it is evident that vesting has allowed the industry to develop scale to compete in international markets, as well as diversifying their sourcing arrangements, the DPI concludes that the contemporary rice industry has developed to a level of maturity and sophistication that will enable it to maintain these scale efficiencies in the absence of vesting arrangements. An export monopoly is no longer necessary for SunRice to achieve benefits from scale.

In the absence of competition, it is difficult to assess whether SunRice is operating in the most cost and resource efficient way possible. There is also no guarantee that the level of service provision by SunRice is financially optimal for its growers. Despite the SunRice Paddy Pricing Policy, there is limited transparency around the individual costs allocated to the pool and how they are calculated. Vesting may be masking under or over-investment or industry over servicing and, consequently, any other benefits of vesting may be offset by efficiency costs. Ultimately, this is a key role of a competitive market, which facilitates business innovation, drives more efficient cost structures by enabling price discovery and provides a range of options for market participants.

Other claimed benefits such as quality assurance and industry R&D can be achieved independently of the constraints on competition however, these may become more targeted to the objectives of specific segments of the industry. Regardless of vesting, rice industry R&D will continue to be coordinated through AgriFutures as the statutory Research and Development Corporation (RDC) assigned to administer industry levies and government co-funding.

The one exception to this is the buyer-of-last-resort. Whilst this benefit would most likely cease in the absence of vesting to help SunRice mitigate internal business risk, the DPI is of the view that there are existing alternate mechanisms which can be continued to provide grower market surety, including the use of the existing contractual arrangements and minimum quality standards provisions to provide both grower surety and buyer risk mitigation. Marketing contracts are also a common place in the agricultural landscape, and in most cases not reliant on legislation, provided there is not an imbalance of market power. Vesting already provides significant flexibility within the legislation and by consequence, the commercial contracts which allow SunRice the ability to reject grain, apply a discount on the contracted price, or purchase the rice and divert the grain to other SunRice businesses at a much lower price. In effect it was determined that the buyer-of-last-resort offers little additional protection to growers compared to other grains industries which operate on a similar grade and quality standards payment system.

There is evidence that vesting and the single export desk are restricting the development of new and existing supply chains and inhibiting the ability for some businesses to make decisions in the growing and marketing of their rice. Evidence of this can be seen in the partial deregulation of the domestic rice market in 2006, where there has been little industry fragmentation, with between just 1 per cent and 3 per cent of the annual NSW rice crop being

marketed by the combined twelve additional ABL holders. In the Northern Rivers rice growing regions, there was clear evidence that they would like to grow their production base, but in order to do this they need access to new markets to help manage the risks associated with operating in only one highly competitive market. The economic analysis indicated that the cost of maintaining vesting to the Northern Rivers rice growing industry was between $33 million and $47 million in NPV terms over 6 years to 2026-27. This benefit was shown to be derived at little cost to the Riverina/Murray supply chain.

Similar to the Northern Rivers, a number of growers from the Riverina/Murray who are opposed to vesting, expressed their desire to better access markets in order to grow and market their crop to achieve higher returns based on a differentiated product offering. The CIE modelling did consider that this would involve a diversion of supply from the current supply chain however, the benefits to removing vesting outweighed these costs, and the overall benefits were estimated to be between $80 million and $133 million in NPV terms over 6 years to 2026-27. The estimated diversion in supply is modest compared to the current capacity of the SunRice assets and average crop size, with strong support for SunRice likely to continue from the vast majority of growers in this region, as indicated through consultation and submissions.

The NSW rice industry's operating environment has changed significantly to that when vesting was established, and even more since prior rice vesting reviews. Water reform, supplemented by an increase in cropping options, has meant that growers in the Riverina/Murray now have many more options with how they run their farming operations and this is likely the most significant factor in the ongoing level of rice production in the region. Since the 2016 vesting review, NSW has also re-affirmed its commitment to National Competition Principles by signing the Intergovernmental Agreement to Competition and Productivity-Enhancing Reforms in 2016. The countervailing powers, once facilitated by vesting, are no longer are necessary to maintain viable export markets, evidenced by the 60+ international markets that SunRice exports rice into, and the scale and international sourcing capabilities which will continue to support these interests.

The structure of the rice industry is centred around SunRice, which has purchased 99 per cent of the NSW-grown rice between 2016 and 2020 crop years. Much of the rice grown are varieties with PBR, meaning it can only be sold to SunRice. This is a separate feature of the rice industry that is independent of rice vesting legislation. Paddy prices would still be determined primarily by SunRice in a deregulated export market, as the company would retain control of the majority of the NSW rice crop. While new entrants may target similar markets, no stakeholders expressed interest in engaging in price or direct competition with SunRice on scale, product, branding and quality basis. There is an unmet demand for Australian/Riverina rice and there was a firm view that there are opportunities to target market segments that SunRice do not currently service.

The NSW rice industry has built a unique, world-class, vertically integrated business with a range of powerful consumer brands which make a significant contribution to the Australian economy; however, vesting and the SEEL are no longer required to support the industry moving forward.

Findings in response to the Terms of Reference

Do the benefits of rice vesting outweigh the costs to the community as a whole?

- There is no conclusive evidence of net benefits to rice growers or the community, from the current vesting arrangements.
- Vesting is restricting the growth and development of domestic supply chains, prospective new export supply chains, and inhibiting innovation in some farm businesses.
- If vesting was removed, the impact on the current SEEL holder would likely be restricted to some competition from comparatively small volume new entrants and expansion of some existing domestic market traders into the export market. However, the benefits are estimated to outweigh these costs.
- The current SEEL holder is expected to enjoy ongoing support from the majority of its growers, many of whom own a financial and controlling stake in the company.
- The amount of rice produced in NSW will remain dependent on rice continuing to be competitive with alternate uses of land and water resources.
- All alternative policy scenarios assessed delivered a positive net benefit compared to the baseline current vesting arrangements, but small in relation to the scale of the NSW industry in what could be reasonably expected to be 'normal' production years.
- Removing rice vesting in its entirety is estimated to increase the value of NSW rice production by $80 million to $133 million over the next six years in Net Present Value (NPV) terms after considering costs to the current holder of the SEEL. This is an increase of between 4 per cent and 6 per cent in projected baseline industry sales over the six-year period.

Are any net benefits (or the majority of these benefits) derived as a result of rice vesting alone?

- There is no conclusive evidence that vesting, through the restriction of export competition, is delivering higher prices for NSW rice exports. Rather, higher prices are most likely attributable to a range of external factors such as targeted high value market placement, product and quality differentiation, market positioning, year-round supply, commercial expertise, and supply chain cost differences, which would be mostly maintained under a competitive export environment.
- Freight scale advantage (FSA) benefits can be mostly attributed to the SEEL holder's ability to leverage both domestic and international scale in freight supplier negotiations. The analysis estimates that if vesting was removed, there would be minimal impact on the FSA due to a modest reduction in supply, however the majority of the FSA would remain.

- The buyer-of-last-resort provision is providing growers some unmeasurable benefits such as market surety, provided minimum quality standards are achieved. However, these benefits can be maintained by alternate means such as the existing contractual arrangements offered by SunRice prior to planting rice crops.
- Industry R&D has benefited growers through improving resource efficiency and farm returns, but these benefits are not dependent on vesting. These benefits can be maintained with industry led coordination of R&D investment activities. Some of the benefits of prior public and private R&D investments are restricted to segments of the rice industry.
- The quantitative and qualitative analysis presented in this report indicates that net benefits are not dependent on vesting in the current rice industry and, the majority of these benefits would continue to be achieved under competitive selling arrangements.

In the absence of rice vesting, would a viable rice export market continue to provide benefits for NSW rice growers?

- There is no evidence to indicate that greater competition will compromise the viability of export markets for NSW-grown rice.
- There is intent from various stakeholders to start new rice trading operations or expand existing rice trading operations if access to the export market is granted. This is underpinned by the view that they can achieve higher returns for their businesses by differentiating their products and by providing market diversification in order to manage their market risk.
- Large-scale new entrants are unlikely to establish and thereby erode export market share significantly due to the barriers to investment in the current domestic rice environment which include constrained rice supply, excess processing capacity, and the SEEL holder's dominant domestic market share.
- Impacts on regional employment in the existing supply chain under the removal of vesting scenario and associated reduction in supply, would likely be offset by employment in new supply chains.
- The current SEEL holder will maintain almost all of its scale and market share due to a strong baseline level of domestic grower support, large scale infrastructure, and existing domestic and international sourcing arrangements. The industry is expected to face continued competition for use of land and water resources and the entire supply chain must continue to offer rice farmers a competitive return for rice production to remain viable.
- In the absence of vesting, greater competition and innovation would enhance the long-term viability of the rice industry.

Appendix A: Background to the Review

A.1 The NSW rice industry

A.1.1 The NSW rice industry had an estimated farm gate value nationally of approximately $184 million in 2020-21 and averaged $188 million over the past 10-years[37; 7]. More importantly, for the purpose of this review, is that more than 99 per cent of Australian rice is produced in NSW.

A.1.2 Rice production in NSW is highly variable, reflecting water availability and subsequently water prices. Water prices and the price of alternative crops are key determinants in farmers' decisions to grow rice in any year. Despite this dependency on water, Australian rice growers are highly water efficient and use 50 per cent less water than the global average[12]. Average production in NSW over the last decade (between crop year 2012 and 2021) was approximately 582,000 paddy tonnes per annum of which, between 40 and 70 per cent is exported[46].

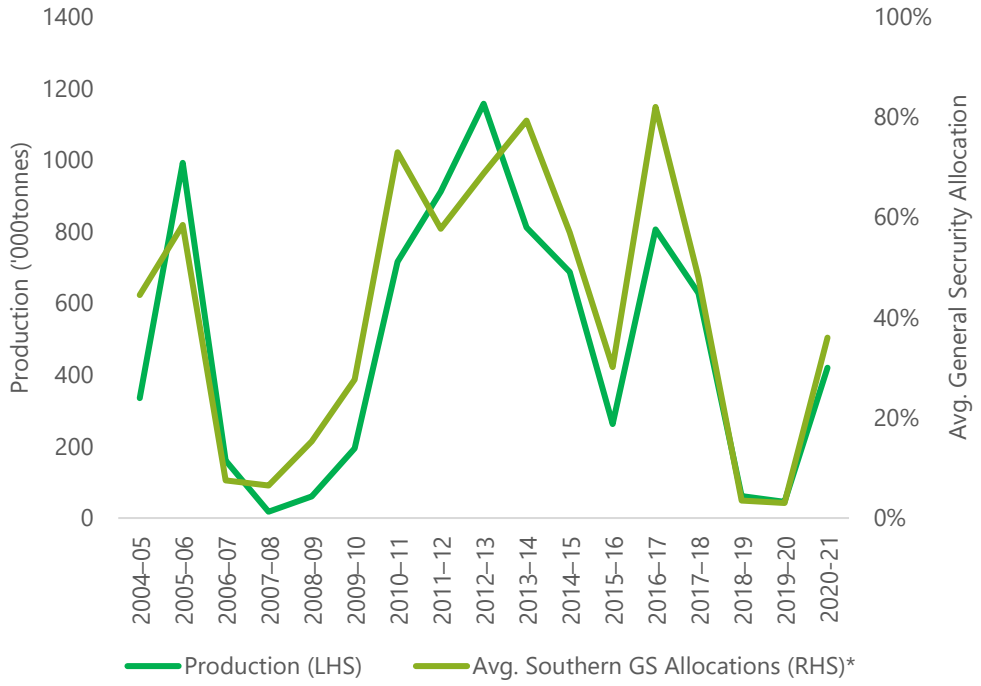
A.1.3 The NSW rice industry is located across two separate regions of the state. These regions are detailed below.

A.2 The Riverina/Murray production region

A.2.1 Between 97 to 99 per cent of NSW rice production occurs within the Riverina/Murray region of NSW, depending on water availability, with the majority of production focused within the three irrigation regions of the Murrumbidgee, Coleambally and Murray Valley. Irrigation is essential to rice production in this region. Nearly all rice farms access water from storages on the Murray and Murrumbidgee Rivers which is delivered to farms via a network of channels including the assets managed by Murrumbidgee Irrigation Limited, Murray Irrigation Limited and Coleambally Irrigation Co-operative Limited.

A.2.2 Rice production in the Riverina/Murray varies each year and is closely correlated to the allocation of NSW General Security (GS) water (Figure A1), as well to allocation water prices and the carryover held in a particular year.

Figure A1: Water allocations and rice production in southern NSW[f; 3; 39]



A.2.3 Riverina/Murray rice farms tend to be mixed farming enterprises and typically produce other irrigated crops such as pastures, cotton, and perennial horticulture, as well as dryland crops such as wheat. Rice competes directly with this range of permanent and annual crops for both land and water, with the relative profitability of these enterprises' changing year-to-year depending in part on water availability and price[13].

A.2.4 Rice is typically planted in October and November and harvested in April and May. Crops are usually drill-sown and flush irrigated before the application of permanent water, or aerially sown into permanent water. Typical yields per hectare are around 10-11 tonnes of paddy rice per hectare, and average water use is around 12 ML per hectare[13].

A.2.5 The vast majority of growers in the Riverina/Murray supply to SunRice, with the exception of a few individual growers producing specialist and organic varieties. Growers supplying SunRice are not permitted to hold their own planting seed supply, as this could potentially compromise varietal purity, and affect logistics and marketing. Additionally, The Act restricts on farm storage of seed, unless that person holds an Authorised Buyers License. Varietal management and seed supply is undertaken by the SunRice subsidiary, Rice Research Australia Pty Ltd[13].

[f] Average General Security water allocation for the Murrumbidgee and Murray rivers.

A.2.6 SunRice subsidiary Australian Grain Storage (AGS) owns and operates rice storage infrastructure with capacity for 1 million tonnes of rice, across 17 sites in the Riverina/Murray. Growers deliver to these storages at harvest, where grain is dried ready for milling. SunRice transports dried grain to facilities at Leeton and Deniliquin for milling and packaging. Rice is milled to either white or brown rice and packaged for distribution. By-products such as rice brokens, hulls and bran can be processed into stock feed rations, pet foods, animal bedding or processed into a range of value-added products such as microwave rice and rice cakes by SunRice subsidiaries[93].

A.3 The Northern Rivers production region

A.3.1 A smaller quantity of rice is currently grown in the Northern Rivers region of NSW mainly within the Richmond Valley near Casino and Lismore, as well as the Tweed Valley further North. Production has been slowly increasing with production ranging from 540 tonnes to 3,800 tonnes in the last 5 years. Approximately 20-30 growers grow rice annually, utilising mainly seasonal rainfall complemented by irrigation on an as-needs basis and depending on available infrastructure. Coastal climatic differences compared to Southern NSW also mean irrigation is not required to protect rice against cold night sterilisation.

A.3.2 Rice production is typically limited to coastal and river floodplains, and whilst water availability is not typically a limiting factor affecting production, the timing and amount of water can affect production. Summer storms are the principal source of water and consequently production is typically defined by large variations in yield. The planting window for rice in the region is longer than that of the Riverina/Murray and typically extends from October to mid-January, depending on rainfall and soil moisture[13].

A.3.3 Rice farms are mixed farming enterprises and rice typically provides an alternative cropping option for paddocks that are too prone to waterlogging for other crops.

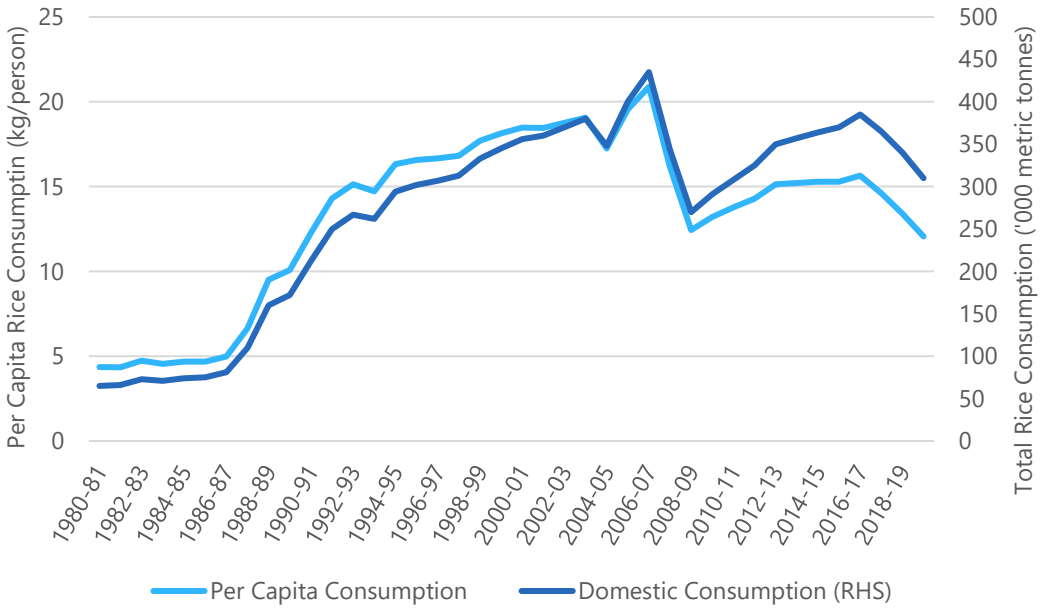
A.4 The Australian domestic market

General characteristics

A.4.1 Domestic demand for rice has fluctuated over the past decade with an estimated 340 thousand tonnes[g] consumed in 2020-21[102]. Annual per capita consumption has also increased over the same period reaching 22 kilograms per head in 2020-21.

[g] Milled rice

Figure A2: Australian per capita rice consumption[102]



A.4.2 Historically, imports have made up about half of the total volume consumed, with annual imports between 2011-2018 averaging 155 thousand tonnes[49], with the other half supplied from domestic production. The market share between imports and domestically produced rice increased significantly throughout 2019 and 2020 given domestic supply shortages due to drought, reaching 277 thousand tonnes in 2019-20[49].

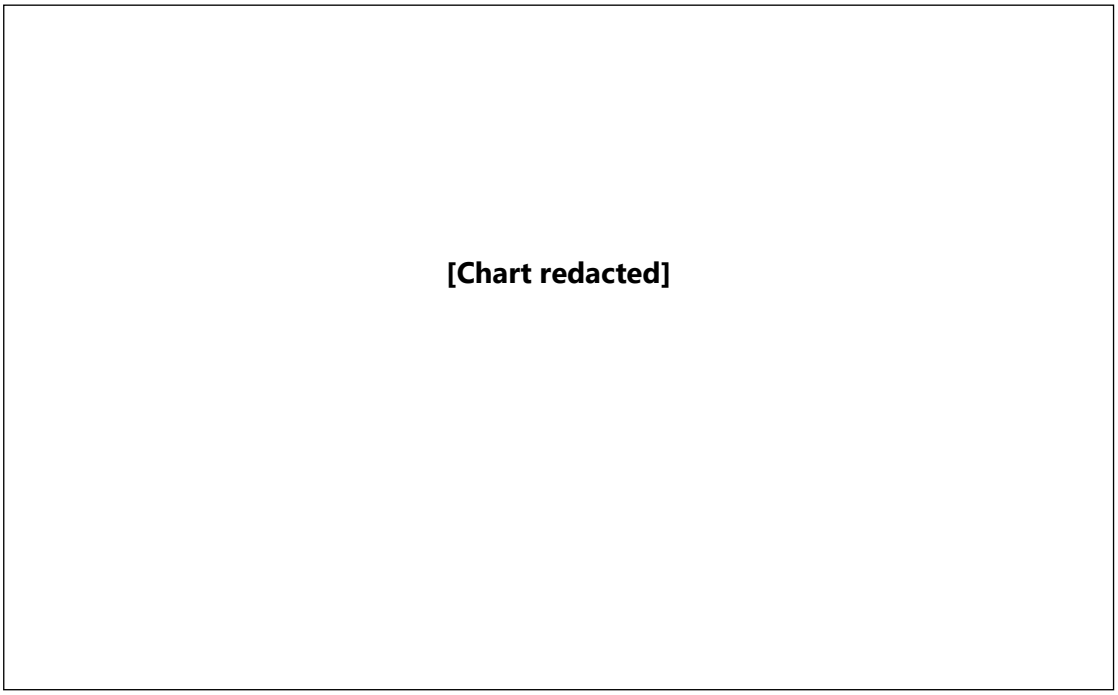
A.4.3 These imports generally reflect prices and consumer preference for rice varieties that are not grown in Australia[46]. In addition to domestic stocks, imports also act like a shock absorber, bridging the gap between domestic supply and demand during times of low domestic production. Rice imports are free from any quotas, tariff or duties other than phytosanitary, quarantine and food safety requirements.

Domestic varietal production

A.4.4 Rice can generally be divided into two subspecies, *Japonica* which is a round-grain rice variety grown in temperate climatic zones and *Indica* which is mainly long-grain rice grown in tropical, subtropical, and partly temperate zones.

A.4.5 Medium-grain or *Japonica* variety rice is the dominant rice grown in NSW with long grain rice making up around 10 per cent share of total production, consisting of Langi, Doongara (Low-GI) and Topaz (Jasmine) varieties. Key medium grain rice varieties consist of Reiziq, Illabong and Sherpa varieties and short grain consists of Koshihikari and Opus varieties. Reiziq is the key variety underpinning more than half of the total production in most production years.

Figure A3: Riverina/Murray varietal production CY2012 – CY2021[94]



A.5 The global rice market

General characteristics

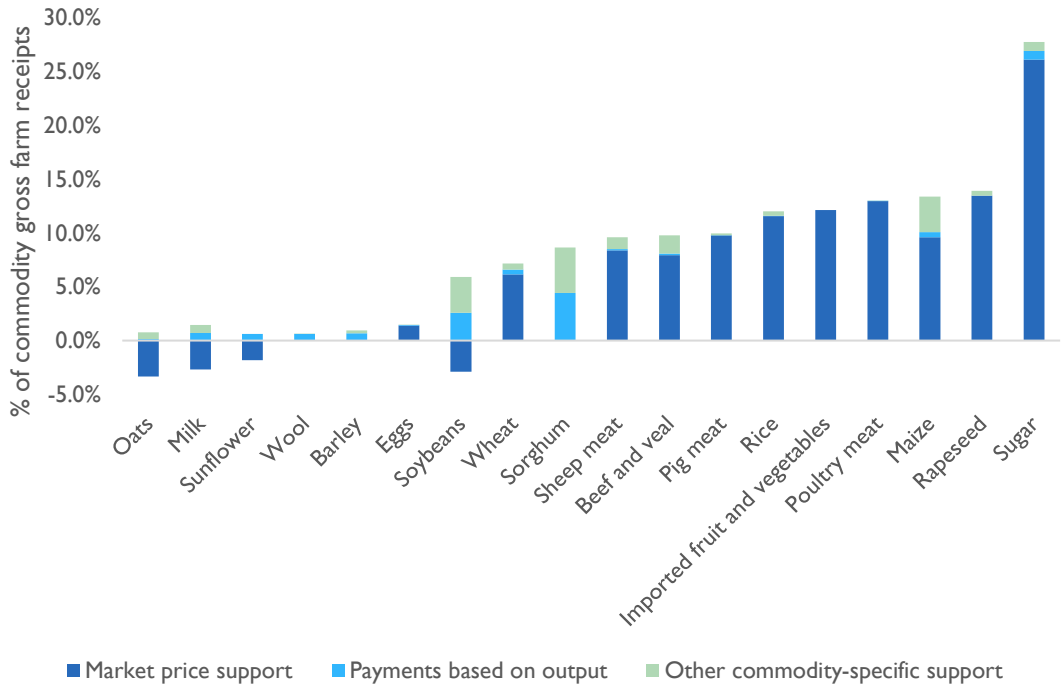
A.5.1 Rice is a staple food for more than half of the global population[70] and is a major source of food energy and protein for people in the developing world. Over the decades, rice has occupied a prominent position as a strategic crop for food security and economic development in many regions of the world. As a staple food, the demand for rice is generally not responsive to price and income changes. It is central to the food security for a sizable portion of the global population and is therefore considered a 'strategic' commodity. Rice is one of the most protected food commodities in the world, giving rise to a wide range of government controls and interventions.

A.5.2 The volume of rice traded globally is relatively small when compared to the volume produced with most rice consumed where it is produced. Consequently, most rice markets are dominated by domestic production and have market price support resulting in higher domestic prices than reference prices for rice[62] and shortfalls in production typically result in price volatility[43]. Global production and consumption are geographically concentrated in Asia which accounts for over 90 per cent of global rice production and consumption[44] with China, India and Indonesia collectively accounting for 60 per cent of global rice output. In contrast, imports are more fragmented with China the largest importer accounting for approximately 10 per cent of trade. This combination of market segmentation, price inelastic demand, geographic

concentration, and protectionist policies has resulted in the market being generally regarded as thin[h] and highly volatile.

A.5.3 Because of its importance as a staple global food item, and its associated cultural, economic and environmental significance, the rice market is highly political and rice policy interventions occur throughout the world[42]. These distortions take several forms including import and production restrictions, support prices and subsidies; taxes, levies, and tariffs on imports; export subsidies; and government stockpiling. Most developing countries also provide consumer subsidies. The thinness of the global rice market is a direct result of these policies[42]. OECD figures indicate that globally, rice is one of the more heavily supported agricultural commodities, with total support equivalent to 11.6 per cent of gross farm receipts over the period 2018 to 2020. This compares to sugar, which had support equivalent to 26.1 per cent of gross farm receipts over the same period[66] (Figure A4).

Figure A4: Transfers to specific commodities 2018-2020[66]



A.5.4 The global rice market is not only highly political but also highly fragmented between varieties and unlike other bulk commodities, the global trade is highly segmented by rice type (long, medium, and short grain rice), degree of processing (paddy, brown or

[h] A 'thin' market is characterised by a low number of buyers and sellers and therefore a relatively low number of transactions.

milled) and quality. Varieties are often not interchangeable due to strong consumer preferences[43].

A.5.5 With rice not being homogenous and being thinly traded, the development of global benchmark prices, established quality standards and futures markets have been hindered. Government policies, limited opportunity for market liquidity and a lack of international quality specifications have also contributed to a lack of futures markets[54].

A.5.6 Historically, *Indica* rice is subject to relatively low tariffs, however the trade of *Japonica* rice has been hindered by extremely high protection rates[43]. In general, the higher the level of processing, the higher the tariffs with rates on husked or milled rice products generally higher than for paddy rice, as governments strive to protect their milling industries[43].

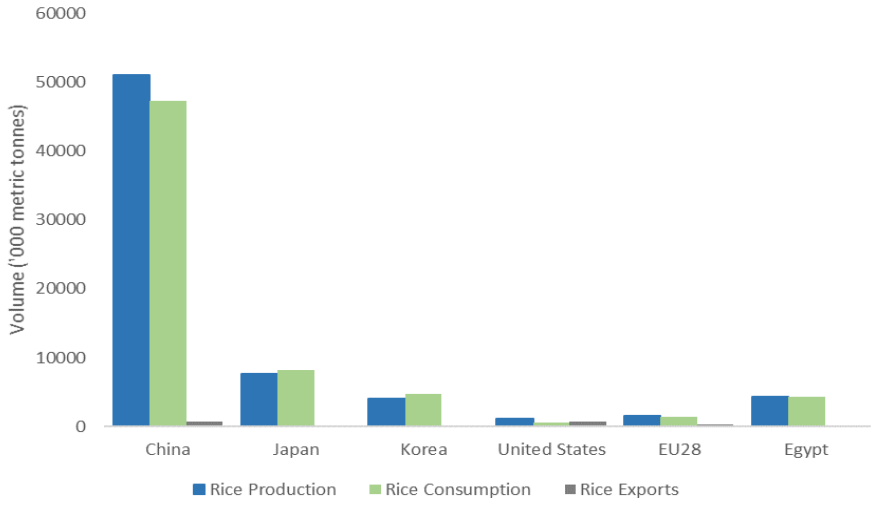
Global varietal production and trade

A.5.7 Total global paddy (milled rice equivalent) production over the past decade since 2010 has averaged approximately 487 million metric tonnes[102; 19]; however on average, only 44 million metric tonnes of this rice is exported.

A.5.8 *Japonica* varieties account for about approximately 13 per cent of global rice production and 8 per cent of the global rice trade in 2016[62]. Global *Japonica* rice production was estimated at 71.3 MT in 2017 and increased by an average of 3 per cent per annum over 2003–2017[63]. The major *Japonica* rice producing countries are China, Japan, Korea, the United States, the European Union and Egypt (Figure A5).

A.5.9 In total global rice trade terms (dominated by long-grain varieties), Australia is a relatively minor participant. In non-drought years, Australian rice exports account for just over 1 per cent of the global trade; however, as a producer and exporter of medium grain or *Japonica* rice varieties, in some years Australia has accounted for up to 20 per cent of global *Japonica* exports[90]. In recent years, China has become much more active in the global trade of *Japonica* rice, growing exports by 18.3 per cent annually between 2003 and 2017, to make up approximately 33 per cent market share of global *Japonica* rice exports in 2017[67].

Figure A5: Major *Japonica* rice producers 2017[67]



Key global market trends

A.5.10 Increasingly, premium markets are demanding products that are more differentiated, that either have unique attributes in terms of taste or performance in specific uses in certain meals. Differentiation also extends to the production provenance, that is, the country of origin, and production methods that can include environmental, sustainable, bio-dynamic and organic accreditation. In terms of greater differentiation, branding is also becoming more important.

A.5.11 In the global rice industry, Ebro, Mars (Uncle Bens) and Wilmar are some of the integrated rice players competing with SunRice, with an established presence in their respective regions and markets.

A.5.12 In the Australian retail grocery industry, market participants in rice and rice-based foods include SunRice, Riviana (a SunRice subsidiary), private label offerings and specialist participants such as Manassen Foods (Tilda) and Mars (Uncle Bens).

A.5.13 NSW rice exports are small in the context of the global market but hold a significant market share in the branded and supermarket ready short and medium grain segment of the market. The market segment is dominated by multinational food companies whose competitive position is based on branding and product positioning, both at retail and food service levels.

A.6 NSW rice exports

A.6.1 Australia is a net rice exporter, producing more rice than is required to satisfy domestic demand; however, consumer preferences for specific varieties of rice make it more profitable to export some of our rice where we have a comparative advantage and import other varieties[1]. Export volumes have trended downwards over the past few years, largely in-line with similar trends in domestic supply. However, the economic analysis (Chapter 7) indicates that export prices have trended upwards over the same period of time. This trend is in line with the SunRice strategy to transition from bulk to branded product in order to position Australian rice in premium markets, supplemented by global sourcing arrangements[79].

A.6.2 NSW is a supplier of high value packaged rice products as opposed to a supplier of large volumes of bulk rice. Branding and product positioning have been highlighted by SunRice as key to their corporate strategy to maximise returns from Australian-grown rice and diversity via their global sourcing footprint[83]. These attributes are discussed further in Chapter 6.

A.6.3 Over the past decade, NSW rice has been exported to around 60 different countries; however, there are 6 major market groupings that capture the major volume and value contributors[5]:

1. **Pacific Majors** (PNG and Solomon Islands)
2. **Middle East** (Israel, Palestine, Saudi Arabia, Jordan, Syria, Kuwait, Qatar, UAE, Bahrain, Oman, Libya)
3. **WTO Markets** (principally Japan, Taiwan and South Korea but also the Russian Federation, Sweden, and the United Kingdom)

4. **New Zealand**
5. **Pacific Islands** (Fiji, New Caledonia, Micronesia, Kiribati, Marshall Islands, Vanuatu, Samoa)
6. **Other countries** (Hong Kong, Singapore, Thailand, United States, Canada, all other countries)

A.6.4 In-line with the developments on the Riverina/Murray supply side and the marketing strategy of SunRice, there has been a significant shift in the profile of individual export markets serviced.

A.7 Main competitors for NSW rice exports

A.7.1 The Californian rice industry is widely viewed as the direct competition for NSW rice in the majority of export markets. The California industry, which also grows short and medium grain rice, is, on average, 3.5 times larger than the Riverina/Murray industry and critically, less variable.

A.7.2 Californian exports have two distinct segments:

a) bulk exports to Japan, Korea and Taiwan to their Tender markets; and

b) branded product into the premium markets such as those in the Middle East.

A.7.3 The pattern of US exports appears more seasonal than NSW rice exports, with major export months following harvest periods in the months of September and October and aligned with supply of large-volume tenders in-bulk to Asia, particularly Japan. Over the period from 2012 to 2020, US exports of short and medium grain rice were over 3 times that for SunRice on a volume basis.

A.7.4 In recent years, China has also emerged as a global supplier of medium grain rice. Chinese medium-grain rice has become a major competitor to Australian rice in some of Australia's key markets, such as the Pacific.

Appendix B: Other benefits and costs not included in body of report

B.1 Access to finance

B.1.1 Access to credit to establish a crop is crucial to many rice farmers, particularly to assist with various input costs, most notably water. SunRice maintains a range of financing facilities to enable growers' access to credit both for crop inputs (GrowRice) as well as advanced crop payments (PaddyPay) at competitive market rates.

"[SunRice provides] the scale to make crop finance available at corporate rates, which is a little over half the interest rate our bank charges us. This crop finance is very important to us, as we usually have very low liquidity when returning to rice after a dry period".

B.1.2 The GrowRice facility allows for up to between $1500 per hectare to $2000 per hectare to be financed at 2.0 per cent p.a.[94] which is below commercial business rates. The current interest rate for PaddyPay is not disclosed, however take-up of the program was high in crop year 2021, with 52 per cent of paddy payments facilitated through PaddyPay to the 30 April 2021[89].

B.1.3 Although not explicitly mentioned in submissions, a discussion with a grower in the Riverina/Murray noted that it made negotiating credit with banks easier. It is also reasonable to assume that the single export desk and the estimated pool return may provide some confidence to banks to provide competitive interest rates of finance through SunRice. However, the benefit attributable to vesting is likely to be minimal, rather these benefits are likely to be mostly attributable to SunRice's overall financial position.

B.1.4 This benefit of access to credit was only mentioned directly by a few submissions so is not considered a significant issue as part of this Review.

B.2 Security of payment

B.2.1 Based on the vetting process undertaken by the RMB when licensing authorised buyers and driven by SunRice's long-standing relationship with growers, growers also benefit from a confidence in payment which minimises their own counterparty risk. In broad terms the authorised buyer vetting process carried out by the RMB aims to assess the credit risk of authorised buyers prior to allocating them an authorised buyer's license, therefore reducing the risk of default on grower rice payments. This benefit also extends to rice growers delivering to other authorised buyers, including those servicing the Northern Rivers, and, as such, is not exclusive to growers supplying into the export market.

B.2.2 Although submissions provided by rice growers and other authorised buyers did not directly reference this benefit, it was evident through the consultation process that there is certainly a level of trust that has been developed between the authorised buyers

and their growers, which supports growers sense of security that they will receive full payment for their crop.

B.2.3 The authorised buyer licensing process which facilitates this benefit is dependent on vesting in its current form. In the event of deregulation, it is possible that many growers will be reluctant or slow to change and will continue to trade and deal with the authorised buyer they know, and therefore trust.

Appendix C: Post-deregulation outcomes in other Australian agricultural industries

C.0.1 The DPI acknowledges that the industries noted below differ in many ways from the NSW rice industry. They also have significant similarities.

C.1 Dairy

C.1.1 Deregulation of the dairy market occurred on 1 July 2000. This reform abolished each of the state SMA's and ended the segregation of the markets for manufactured and fresh milk[77].

C.1.2 Deregulation has led to higher farmgate milk prices. Since 2000, all producers, regardless of the end use for their output, have commanded a steadily rising farm gate price[20].

C.1.3 Australian consumers have benefited from lower prices for fresh milk, with retail prices falling by 12 cents per litre immediately following deregulation.

C.1.4 Despite a fall in the national herd size, national milk production has remained relatively stable due to increases in per cow productivity[20; 15].

C.1.5 Deregulation accelerated the pressures for productivity growth and structural change and facilitated the reallocation of resources from less efficient farms to more efficient ones[77; 51].

C.2 Wheat

C.2.1 Deregulation of the wheat market occurred over an extended period with the domestic marketing of wheat being deregulated in 1989 while the 'single-desk' wheat export marketing arrangements for bulk wheat, operated by AWB (International) Limited, was removed in June 2008[60].

C.2.2 Post deregulation growers have had greater choice and flexibility as to how their grain is marketed and by 2010 there were 29 organizations accredited to export bulk wheat. More recently the number of bulk grain exporters averaged 5 in each of the Eastern states over the three years to 2019-20[60; 8].

C.2.3 Cropping industries have continued to increase productivity since 2009, averaging 1.5 per cent per annum (adjusted for climate impacts) to 2020, compared with broadacre agriculture generally (0 per cent) for the same period[4].

C.2.4 Responding to global demand, Australian average annual production of wheat was 24 per cent higher for the ten-year period to June 2018 compared with the annual average for the ten-year period to June 2008, similarly exports were 28 per cent higher[2].

Appendix D: DPI stakeholder consultation schedule

Table TD1: DPI stakeholder consultation schedule

Date	Stakeholder(s)	Location
10 March 2021	Rice industry field day (Review launch)	Jerilderie
31 March 2021	Consultation meeting with NSW Farmers	Online
11 May 2021	Industry roundtable with NRRGA, Natural Rice Co, NSW PC and DPI	Online
21 May 2021	Industry roundtable with RMB, RGA, SunRice, NSW PC and DPI	Sydney CBD and Online
28 May 2021	Consultation meeting with DFAT	Canberra
28 May 2021	Consultation meeting with ABARES	Canberra
15 June 2021	Consultation meeting with RMB	Online
22 June 2021	Consultation meeting with Natural Rice Co	Penrith
28 June 2021	RGA Rice business suppliers workshop*	Wagga
29 June 2021	RGA Rice business suppliers workshop*	Deniliquin
30 June 2021	RGA Rice business suppliers workshop*	Leeton
2 July 2021	Consultation meeting 1 with SunRice	Sydney CBD
6 July 2021	Consultation with RGA Board	Online
6 July 2021	Consultation with DPI Land Use Planning team	Online
12 July 2021	RGA growers workshop	Griffith
13 July 2021	RGA growers workshop	Leeton
13 July 2021	RGA growers workshop	Coleambally
14 July 2021	RGA growers workshop	Deniliquin
14 July 2021	RGA growers workshop	Finley
27 July 2021	NRRGA growers meeting	Online
29 July 2021	Consultation meeting 2 with SunRice	Online
11 Aug 2021	Consultation with Southern Cross Uni (Northern Rivers cropping opportunities)	Online

26 Aug 2021	Consultation with DPI Northern Cropping Systems	Online
5 Oct 2021	Consultation meeting with A.I LAMB Pty Ltd	Online

*Meeting unable to be attended by DPI staff due to COVID-19-induced LGA lockdown. Online facilities were not available at the meeting. CIE representative Peter Woods attended on behalf of the Review and provided feedback to DPI.

Appendix E: CIE economic analysis appendices

E.1 Information and data requests made to SunRice and RMB

Table TE1: Data sources requested[24]

Request	Provided?	Status/comments/alternatives
RMB		
Annual Reports to NSW Rice Growers	✓	Publicly available on the RMB website
Detailed consultants' reports: Verification of export premiums and FSA. Prepared for RMB.	✓	Confidential to RMB Provided by RMB to the DPI and NSW PC for the Review.
RMB Board Minutes including decision to award SEEL	X	
Detailed market briefings provided to RMB by SunRice	X	
Industry stock levels as of June 2011 to 2021	✓	Provided by RMB to the DPI and NSW PC for the Review. Does not distinguish between new season and carryover stocks.
Detailed SLA between RMB and SunRice 2019-2022	✓	Publicly available on the RMB website
SunRice		
Detailed export volumes by partner country and product	X	Volume information was available from the Consultants verification report for RMB and information on the gross value of sales by market.
Rice production volumes by variety	X	SunRice and RMB indicated ranges of production by variety in consultation
Production configuration by package format (Bulk/bags/packs)	X	SunRice indicated broad trends during consultation but did not provide specifics

Request	Provided?	Status/comments/alternatives
Indicative costs from farm gate to ex-mill by year (costs attributable to Growers' Pool)	X	
Indicative freight, insurance and agent's fees from SunRice California operations to destination markets	X	
Freight cost to Port and Free on Board loading charges	X	
Freight scale discount calculations by year and market	✓	Available in consultants' verification report for RMB Supplementary information provided by SunRice
Submission to 2021 Rice Vesting Review	X	
Consultant's Report "RBB Economic Report"	X	

These requests were made formally through the DPI Rice Vesting Review.

E.2 Data sources accessed

Table TE2: Data sources accessed[24]

Description	Timeseries accessed	Coverage/Description	Source
Detailed Australian export trade data	2011-2020 By shipment	Detailed exports of milled rice by format (bulk, bagged and packaged) Includes both Ricegrowers Limited and other exporters. Values and volumes	Australian Border Force (ABF) (Customs)
Middle East rice imports	2015-2020 Annual only	Saudi Arabia, Jordan, Kuwait, United Arab Emirates, Bahrain, Qatar. By source country.	UN Comtrade database General Authority for Statistics – Kingdom of Saudi Arabia

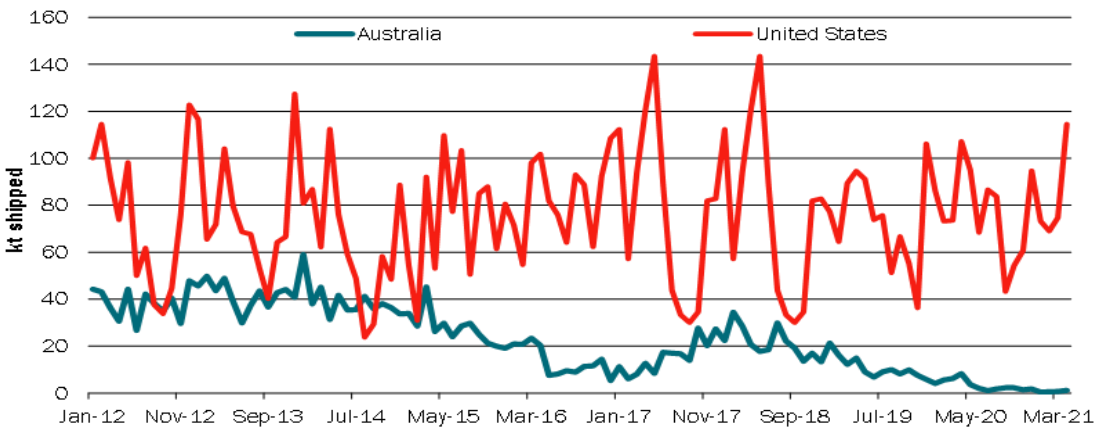
Description	Timeseries accessed	Coverage/Description	Source
		Value and volume	
Asian rice imports	2010-2020 Monthly	Japan, Korea, Taiwan, Singapore, and Hong Kong By source country. Value and volume	Respective Customs and Statistics agencies in each country
New Zealand rice imports	2012-2020 Monthly	By source country Value and volume	NZ Infoshare
US rice imports	2012-2020 Monthly	Exports by country identified by rice type (including medium grain) By export market Value and volume California identified separately	USDA Foreign Agricultural Service Global Agricultural Trade System USDA State Agricultural Trade Data
Global rice market indicators and outlook	2010-2020	Rice indicator export prices for the United States, Thailand, Vietnam, and India by month. Global production and import trends	USDA Economic Research Service
Export market strategies and trends	2011-12 to 2020-21	Key developments and strategies in export markets for Riverina/Murray rice.	SunRice Annual Reports and Investor Relations Communications Grower verification reports.
Ricegrower production and water use	2001-2020	Supplying farms, paddy production and average yield by district System irrigation allocations, use and pricing	RMB Murray Irrigation/ABARES Water Market Outlook.
Grower Verification Reports	2012-13 to 2019-20	Quantification of export premiums and FSA from the holder of the SEEL	RMB

Description	Timeseries accessed	Coverage/Description	Source
Riverina/Murray supply chain information	2011-12 to 2020-21	Growers Pool Revenue by market and Grower Payments. Operating segment revenues Paddy Pool pricing information	SunRice Annual Reports and Investor relations communications

E.3 Export variability comparison

E.3.1 Over the period 2012 to 2020, US exports of short and medium grain rice were over 3 times that for SunRice on a volume basis. Comparisons using the below scale are difficult, however Australian export volumes are twice as variable as the US short and medium grain rice as measured by the coefficient of variation.

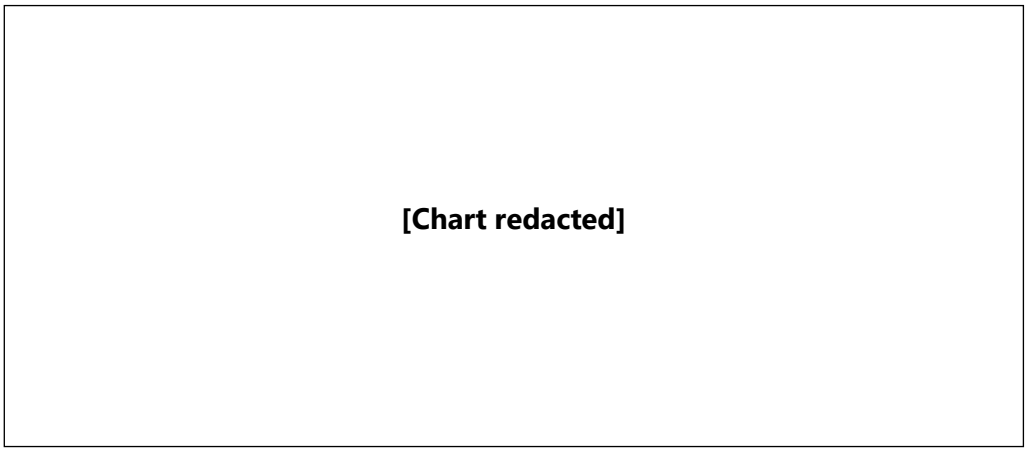
Figure E1: Australia and US export volumes of short and medium grain rice[5;103]



E.4 Bulk exports and price premiums associated with package configurations

E.4.1 Export format is a crucial link to the characteristics of the market and prices received. Figure E2 below shows how NSW product has moved away from bulk export, towards packaged and bagged product which enable greater branding.

Figure E2: NSW rice export of bulk rice to key markets[5]

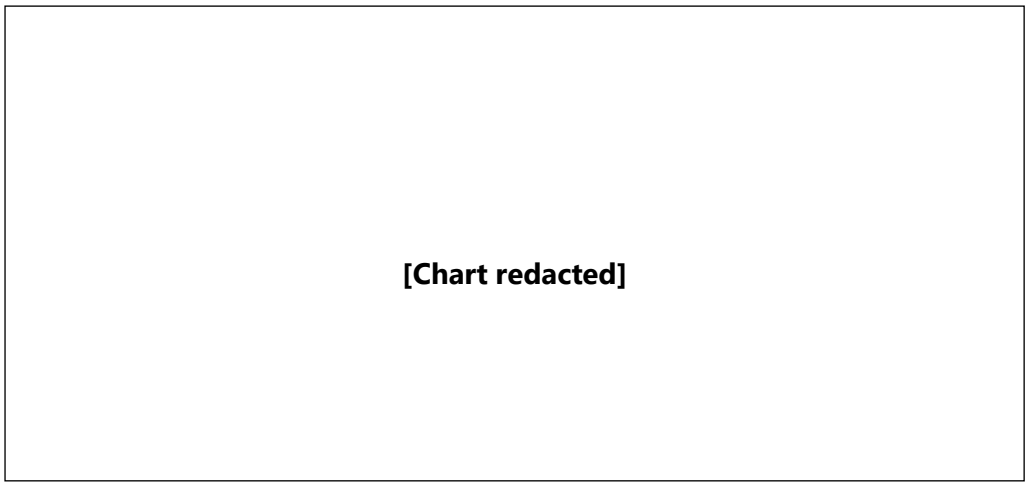


E.4.2 Bulk rice is defined to include 25kg bags and above including unpackaged rice in containers.

E 4 3 Between 2015-16 and 2020-21 the average differential based on packaging was significant. The difference between:

- Retail packs under 10 kilograms and bags up to 25 kilograms was **[redacted]**.
- Bags lower than 25 kilograms and bags over 25 kilograms plus bulk, was **[redacted]** between bags and down to bulk rice.

Figure E3: SunRice export volumes and returns by package size



E.5 Econometric model results

New Zealand

E.5.1 Table TE5.1 presents the results of the econometric model for the main rice exporters to the New Zealand market. The coffecient associated with quantity represents the residual inverse elasticity of demand. Based on the result, the elasticity estimates for

Australia, Thailand, and USA are significantly different from zero, whereas the inverse elasticity for India is insignificant. This indicates some level of market power for Australia, Thailand and the USA which is intuitive in that:

- The level of market power, as indicated by the inverse elasticities, held by each exporter follows the same order as the market shares with Australia ranking the highest and United States the lowest.
- Australia, Thailand, and United States account for over 60 per cent of the New Zealand rice market.
- Thailand operates as the majority supplier of long grain rice into New Zealand and therefore enjoys significant market presence in the market.
- The results indicate some level of imperfect competition in New Zealand but also scope for product differentiation.

Table TE5.1: Inverse residual elasticities of key rice exporters in New Zealand[24]

Note: <0.01 ****,<0.05 **, <0.1 *

Variable	Australia		USA		India		Thailand	
Quantity (log)	-0.63***	-10.92	-0.26***	-6.66	-0.05	-0.27	-0.51***	-3.99
Trend	0.002***	6.04	0.004***	5.73	0.001	0.8	0.001***	3.83
GDP per capita (log)	0.01	0.03	-0.08	-0.12	0.08	0.17	-0.44	-1.35
Thailand Exchange Rate (log)	0.47***	5.56	0.49***	3.34	1.03***	8.46		
Australia Exchange Rate (log)			-2.30***	-5.41	-1.14**	-2.78	-1.23***	-6.82
India PPI (log)	-0.04	-0.94	0.13**	2.41			0.05	1.31
Australia PPI (log)			0.48***	5.65	0.03	0.63	0.45***	5.04
US PPI (log)	0.09	0.001			0.74***	5.99	0.48***	5.89
Constant	1.71	0.78	-4.23	-1.05	-6.71***	-2.24	-3.81**	-2.01
Summary reporting								
Number of Observations	227		226		228.		227	
R^2			0.56					
Centered R^2	0.66				0.53		0.79	
Uncentered R^2	0.88				0.88		0.81	

Saudi Arabia

E5.2 Econometric results for the inverse residual elasticity of demand of Australian rice exports to Saudi Arabia are shown in Table TE5.2 below. The result was insignificant indicating the market was perfectly competitive. Australia occupies a relatively small

market share of the Saudi Arabian rice market estimated at around 2 per cent of total rice market.

Table TE5.2: Inverse residual elasticity for Australia in Saudi Arabia[24]

Variable	Coefficient	z value
Quantity (log)	-0.00012	-0.02000
Trend	0.003***	7.53
GDP per capita (log)	-0.29	-0.91
Thailand Exchange Rate (log)	0.37***	2.20
US PPI (log)	0.01	0.09
Constant	1.24	0.30
Number of Observations	77	
R^2	0.79	

E6. Counterfactual development

Northern Rivers counterfactual development

E.6.1 The ability to diversify Northern Rivers market base to include exports provides growers with greater certainty of longer-term markets and prices, with number of growers tripling, compared to the baseline, and the addition of more land that result in higher average crop sizes.

E.6.2 For this scenario, up to 6,000 hectares could be planted by the 2026 crop year. As a check[13], estimated that approximately 10,000 hectares are being used for soybeans in the region, where rice could be substituted, and that this is a small proportion of the total area identified by industry stakeholders as being suitable for growing rice, which ranged from 25,000 to 70,000 hectares. Consultation with industry in the region indicated 40,000 hectares, where 6,000 hectares in the scenario represents 15 per cent of this total.

Table TE6.1: Greater domestic and export market access - Northern Rivers region[24; Stakeholder consultation]

		2020	2021	2022	2023	2024	2025	2026
Paddy production								
Ricegrowers	no	20	20	28	36	44	52	60
Average land planted	ha	40	60	68	76	84	92	100
Total land planted	ha	800	1 200	1 904	2 736	3 696	4 784	6 000
Production split								
— White varieties	%	50	20	16	12	8	30	30
— Specialty varieties	%	50	80	84	88	92	70	70
Paddy yield								
— White varieties	t/ha	7.0	4.5	4.5	4.5	4.5	4.5	4.5
— Specialty varieties	t/ha	7.0	4.5	4.5	4.5	4.5	4.5	4.5
Paddy production								
— White varieties	kt	2.7	1.1	1.3	1.4	1.3	6.3	7.9
— Specialty varieties	kt	2.7	4.2	7.1	10.6	15.0	14.8	18.5
Total paddy production	kt	5.5	5.3	8.4	12.1	16.3	21.1	26.5
— proportion of Riverina production	*%*	*12.2*	*1.2*	*1.2*	*2.0*	*2.7*	*3.5*	*4.4*
Paddy returns								
— White varieties	$/t	450	450	450	450	450	450	450
— Specialty varieties	$/t	450	460	465	470	470	470	470
Farm revenue								
— White varieties	$m	1.23	0.48	0.60	0.65	0.59	2.85	3.57
— Specialty varieties	$m	1.23	1.95	3.28	4.99	7.05	6.94	8.71
Total	$m	2.47	2.42	3.88	5.64	7.63	9.79	12.28
Product yield								
— White varieties	kt	1.6	0.6	0.8	0.9	0.8	3.8	4.8
— Specialty varieties	kt	2.0	3.0	5.1	7.6	10.8	10.6	13.3
Total saleable product	Kt	3.6	3.7	5.9	8.5	11.6	14.4	18.1

E.6.3 Table TE6.2 shows the distribution of Northern Rivers counterfactual sales in a deregulated market. While the current market situation requires greater diversification of sales away from the domestic market and to premium export markets, the domestic market will remain important. New Zealand is likely to be the next target due to its proximity and its similarity to the domestic market.

E.6.4 In the short to medium term, prospective premium markets also include Japan and the high-income markets in the Middle East.

Table TE6.2: Market counterfactual for Northern Rivers region[24] ; Stakeholder consultation

		2020	2021	2022	2023	2024	2025	2026
Domestic	kt	3.6	3.7	5.4	7.0	8.5	9.2	10.0
Export	kt	0.0	0.0	0.5	1.5	3.1	5.2	8.1
— Middle East	kt	0.0	0.0	0.2	0.5	1.0	1.7	2.7
— Japan/United Kingdom	kt	0.0	0.0	0.0	0.1	0.2	0.4	0.5
— New Zealand	kt	0.0	0.0	0.3	0.9	1.7	2.9	4.5

Southern breakaway group counterfactual development

E.6.5 With access to both domestic and export markets, there would be sufficient incentives in terms of returns, for additional growers to leave the current Growers' pool (see table TE6.3). This improvement could come through either the development of their own supply chain or tapping into the existing supply chain and brands of a new market entrant such as another food multinational or corporate business. and either market their own rice or under a different brand. There is an opportunity to attract more producers to the supply chain and earn higher average prices at the farm gate by reconfiguring production and through the use of differentiated branding and marketing.

E.6.6 For this scenario, stakeholders have indicated that growers would require a base premium of $30 per tonne above the current pool, to justify leaving the pool and covering the required investments. Over the longer term, it may be possible to increase this premium by investing in a larger marketing campaign and through the development of strategic alliances.

E.6.7 There was no indication of the contribution of coproducts to overall revenue for the new supply chain, other than markets and uses had been identified as part of their business case and that this had been factored into the paddy price.

Table TE6.3: Greater domestic and export market access – Southern breakaway group[24; Stakeholder consultation]

		2020	2021	2022	2023	2024	2025	2026
Paddy production								
Ricegrowers	no	15	15	18	21	24	27	30
Average land planted	ha	30	100	106	113	119	125	125
Total land planted	ha	450	1 500	1 913	2 363	2 850	3 375	3 750
Production split								
— Reiziq/Sherpa	%	80	0	0	0	0	0	0
— Langi/Doongara/ Koshihikari	%	20	100	100	100	100	100	100
Paddy yield								
— Reiziq/Sherpa	t/ha	13.3	13.3	13.3	13.3	13.3	13.3	13.3
— Langi/Doongara/ Koshihikari	t/ha	12.3	12.3	12.3	12.3	12.3	12.3	12.3
Paddy production								
— Reiziq/Sherpa	kt	4.8	0.0	0.0	0.0	0.0	0.0	0.0
— Langi/Doongara/ Koshihikari	kt	1.2	19.6	24.9	30.8	37.1	44.0	48.9
Total paddy production	kt	5.9	19.6	24.9	30.8	37.1	44.0	48.9
— proportion of Riverina production	*%*	*13.2*	*4.3*	*3.6*	*5.1*	*6.2*	*7.3*	*8.1*
Paddy returns								
— Reiziq/Sherpa	$/t	400	400	400	400	400	400	400
— Langi/Doongara/ Koshihikari	$/t	480	480	480	480	480	480	480
Farm revenue								
— Reiziq/Sherpa	$m	3.6	0.0	0.0	0.0	0.0	0.0	0.0
— Langi/Doongara/ Koshihikari	$m	0.9	9.2	11.7	14.5	17.5	20.7	23.0
— Reiziq/Sherpa	$m	4.5	9.2	11.7	14.5	17.5	20.7	23.0
Product yield								
— Reiziq/Sherpa	kt	2.9	0.0	0.0	0.0	0.0	0.0	0.0
— Langi/Doongara/ Koshihikari	kt	0.7	11.7	15.0	18.5	22.3	26.4	29.3
Total saleable product	kt	3.6	11.7	15.0	18.5	22.3	26.4	29.3

E.6.8 Over a 6-year period, the distribution of product across markets for the Southern breakaway group is shown in table TE6.4 would be similar for the Northern Rivers, a mix of domestic and export markets that mitigate risks and permit targeting of specific consumer segments.

Table TE6.4: Market counterfactual for the Southern breakaway group[24]; Stakeholder consultation

		2020	2021	2022	2023	2024	2025	2026
Domestic	kt	3.6	11.7	13.5	14.8	15.6	15.8	14.7
Export	kt	0.0	0.0	1.5	3.7	6.7	13.2	14.7
— Middle East	kt	0.0	0.0	0.4	1.1	2.0	4.0	4.4
— Japan/United Kingdom	kt	0.0	0.0	0.3	0.7	1.3	2.6	2.9
— New Zealand	kt	0.0	0.0	0.7	1.8	3.3	6.6	7.3

E.7 Freight Scale Advantage results

E.7.1 Table TE7.1 lays out the most likely impacts of Scenario 2 on FSA against the baseline scenario of maintaining vesting. As the difference to the maximum impact scenario was immaterial, that table was not included in this report.

Table TE7: Most likely reduction of FSA for existing supply chain under Scenario 2[24]

		NPVa	2020	2021	2022	2023	2024	2025	2026
Average FSA rate									
Baseline	$/t		17.56	28.25	24.94	24.28	22.85	23.53	23.53
Scenario 2	$/t		17.56	27.61	24.37	23.68	22.01	22.31	22.30
— Change from baseline	$/t		0.0	-0.6	-0.6	-0.6	-0.8	-1.2	-1.2
Total export volumes									
Baseline	kt		24.8	110.7	207.1	268.9	248.2	236.7	236.7
Scenario 2	kt		24.8	108.6	204.2	265.0	243.3	229.9	229.9
— Change from baseline	kt		0.0	-2.2	-2.9	-3.9	-4.9	-6.8	**-6.8**
Value of FSA									
Baseline	$m	25.21	0.44	3.13	5.17	6.53	5.67	5.57	**5.57**
Scenario 2	$m	23.86	0.44	3.00	4.98	6.27	5.36	5.13	**5.12**

		NPVa	2020	2021	2022	2023	2024	2025	2026
— change from baseline	$m	**-1.35**	0.00	-0.13	-0.19	-0.26	-0.32	-0.44	**-0.44**

NPV of domestic and export sales over the period 2020-21 to 2026-27 using a discount rate of 7 per cent.

E.8 Regional impacts summary

E.8.1 Table TE8.1 sets out some of the dimensions of how impacts for each of the regional groupings could be determined.

Table TE8: Summary of regional impacts of deregulation scenarios[24]

Regional/industry level	First round impacts	Flow-on benefits/impacts
Riverina/Murray – farm level		
Breakaway group	• Transfer of paddy to the new supply chain • Expected higher returns and greater control over business decisions.	• Improved GMs and capacity to pay for irrigation. • No significant change in enterprise configuration given reasonable 'irrigation year'. • Attraction of additional growers depends on paddy price and perceptions of supply chain performance.
Other ricegrowers	• Initially, small change in paddy pricing expected (see modelling results). • However, outcome dependent on PPP of the existing supply chain, after changes in milling/marketing costs and terms and conditions of supplying the Growers Pool.	• Small changes in paddy price unlikely to be undistinguishable from other climate and market drivers. • To maintain and encourage more production, higher prices may be offered to match the new supply chain and maintain competitiveness with other water users.
Riverina/Murray – drying and milling		
Breakaway group	• Investment in on and off-farm infrastructure of up to $20-25 million. • Additional employment estimated to be up to 20 FTE.	• Impact depends on where infrastructure is purchased – silos, augers and sheds likely to be purchased in the region. • Specialised milling equipment likely to be imported from outside of the region and from overseas.
Existing supply chain	• Loss of throughput to both established mills (see text	• Flow-on impacts dependent on corporate decision-making relative to the baseline to balance increases in operation

Regional/industry level	First round impacts	Flow-on benefits/impacts
	for more detailed discussion).	costs against changing the paddy return.
Northern Rivers		
Farm level	• Rice provides a new enterprise option. • Enterprise switch particularly from soybeans to rice. • Previously underutilised land brought back into production.	• The benefit of a number of hectares planted by improvement in GMs for rice compared to soybeans and grazing/uncropped land. • Resulting in higher incomes for participating growers, with flow-on to the region.
Drying, storage and milling	• Increased ability to attract additional production and increase utilisation of existing capital. • Higher returns to milling and marketing.	• Increased profitability in milling and marketing. • Further investment and employment in line with expansion.

List of figures and tables

List of abbreviations/acronyms

ABF Australian Border Force
ABL Authorised Buyers License
AGS Australian Grain Storage
ASX Australian Securities Exchange

CBA	Cost Benefit Analysis
CIE	The Centre for International Economics
CIF	Cost, Insurance and Freight
CSQ	Country Specific Quota
DFAT	Department of Foreign Affairs and Trade
DPI	NSW Department of Primary Industries
EPP	Export Price Premium
EU	European Union
FOB	Free-on-Board
FSA	Freight Scale Advantage
FTA	Free Trade Agreement
GM	Gross Margin
Kt	Kilotonnes
ML	Megalitre
NCP	National Competition Policy
NPV	Net Present Value
NSW PC	NSW Productivity Commission
NRRGA	Northern Rivers Ricegrowers Association
NSX	National Stock Exchange
OMA	Ordinary Market Access
PHNG	Papua New Guinea
PBR	Plant Breeder Rights
PPP	SunRice Paddy Pricing Policy
RGA	Ricegrowers Association of Australia
RMB	The Rice Marketing Board for the State of New South Wales
SBS	Simultaneous Buy Sell
SEEL	Sole and Exclusive Export License
SLA	Service Level Agreement
STE	State Trading Enterprise
The Act	Rice Marketing Act 1983
ToR	Terms of Reference (Rice Vesting Review)
Treasury	NSW Treasury
TRQ	Tariff Rate Quota
WTO	World Trade Organisation

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