



Australian Government
Department of Agriculture
and Water Resources

Review of the wheat port access code of conduct

Wheat Port Code Review Taskforce



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Summary

Bulk wheat port terminals are essential infrastructure in the export wheat supply chain. If access constraints emerge at bulk wheat port terminals or operators use monopoly powers to charge higher prices, the competitiveness and profitability of affected wheat producers and exporters is at risk.

The Port Terminal Access (Bulk Wheat) Code of Conduct is a mandatory industry code of conduct made under the *Competition and Consumer Act 2010* (the CCA). The code commenced in 2014. It establishes an access arrangement to ensure exporters of bulk wheat have fair and transparent access to port terminal services. The code is the most recent step in the gradual deregulation of Australia's wheat marketing arrangements, which resulted in the removal of the 'single desk' in 2008.

A review of the code was required to begin within three years of the code commencing. The Department of Agriculture and Water Resources was tasked with conducting this review. It released the terms of reference and an issues paper in September 2017 to start the first round of industry consultation. A second round of consultation on an interim report occurred between April and June 2018.

Australia's bulk wheat exporters have a common reliance on and need to access port terminal services. However, they have competing business interests. These competing interests have been reflected in the divergent views presented to this review, through industry submissions as well as consultations undertaken by the review taskforce.

In the increasingly competitive global wheat trade, large vertically integrated storage, port terminal and export marketing services businesses are likely to have competitive advantages over smaller businesses or non-asset owning trading houses. While codes prescribed under the *Competition and Consumer Act 2010* enable industries to develop targeted regulation to raise the standard of business conduct, their purpose is not to protect smaller participants from competitive pressures that relate to bargaining power, access to markets or limited scale when purchasing (The Treasury 2017).

The need for the code

Wheat port terminals are essential infrastructure in the export supply chain, but despite their size they do not have strong natural monopoly characteristics. New port terminals at Brisbane, Newcastle, Port Kembla, Geelong, Adelaide and Bunbury have been built since the deregulation of bulk wheat marketing in 2008. These terminals now compete with incumbent terminal operators. New terminals are being built, such as the innovative T-Ports terminal on South Australia's Eyre Peninsula.

In consultations with the review taskforce, exporter customers of GrainCorp, CBH Group and Viterro port terminals supported continuation of the code. However, they also observed that concern about port terminal access had not turned out to be the issue they thought it may have become when the statutory single desk bulk wheat marketing regime was abolished.

Since the introduction of the code in 2014, several operators have started using mobile ship loaders to export wheat and other grain. These facilities have lower construction costs than

traditional grain export terminals, reducing barriers to entry. In some cases, exporters using these facilities source grain from on-farm storage or private storage rather than drawing grain from vertically integrated up-country grain storage facilities. This emerging supply chain model may continue to grow in coming years, but it will take time for effects to become apparent.

While new port terminals continue to be built, some port terminals serving production regions where bulk exports are the only marketing option are not currently subject to competition. Although market forces, including the threat of new entry, may lead the operators of these terminals to provide access on fair and reasonable terms, to provide certainty of access the code should continue in operation for the time being.

Global wheat production and international markets are changing, increasing competition in Australia's wheat export markets. This is evident, for example, in some of our longstanding and important Asian markets, with increased imports of Black Sea and Argentinian wheat. The Australian industry will need to reduce the cost of landing wheat in importing countries in coming years. The code should not impede this.

There is no clear need to substantively amend the code at this time, but the review has recommended a number of amendments to improve its operation. Section 6 of the regulation requires a second review of the code six to eight years after commencement. The interim report suggested the code be reviewed again in 2020 to ensure it remains fit for purpose as competitive forces in global wheat trade evolve. However, the review has concluded that, given the need to gather evidence on the efficacy of an amended code, the code should be reviewed again in 2022.

Recommendation 1

That the wheat port access code be retained and reviewed again in 2022.

Stakeholder proposed amendments to the code

The Australian Competition and Consumer Commission (ACCC) has monitored and enforced compliance with the code since it came into force in 2014. On the back of this experience, the ACCC proposed specific refinements to the code to improve its operation and enforcement.

Definitions

The export wheat sector's traditional bulk handling model from paddock to port is being challenged by innovations and investment in new business models. Consequently, it is appropriate to consider whether definitions of key terms that determine coverage of the code (clause 3) are fit for the future and support the code's intended policy outcomes. These terms include 'port terminal facility', 'port terminal service', and 'port terminal service provider'.

Recommendation 2

That the code be amended to require parties that jointly provide port terminal services to nominate which party is responsible for fulfilling relevant code obligations and to clarify related matters of process and responsibility.

That the definitions of 'port terminal facility' and 'port terminal service provider' be amended to clarify the facilities that fall within the scope of the code, and are subject to regulation, at a particular time—for

example, by removing reference to capability and clarifying when a facility would be considered ‘used or to be used’.

Penalty provisions

When the code was developed, pecuniary penalties were not available to mandatory codes under the CCA. Legislation was passed on 4 September 2014 introducing pecuniary penalties for mandatory codes. In order for a breach of a clause in a code to attract a pecuniary penalty, the code must specify that the relevant clause is a civil penalty provision.

While the review recognises that non-pecuniary penalties are available under the CCA, appropriately scaled pecuniary penalties should be applied where the code requires a port terminal service provider (PTSP) to take a specific action within a specific period.

Recommendation 3

That appropriate remedies, including civil pecuniary penalties and thereby infringement notices, be considered for serious and egregious breaches to encourage PTSPs to take specific actions within a specific period required by the code, including in relation to:

- Part 2: publication obligations, including continuous disclosure rules
- Part 3: non-discrimination, no hindering and dispute resolution provisions
- Part 4: certain aspects of the capacity allocation and protocol obligations
- Part 5: publication obligations, including regarding capacity and performance indicators
- Part 6: record-keeping obligations.

Stem reporting

The review has considered current shipping stem reporting practices and the expectations and likely use of the published information by stakeholders. The review has sought to balance these considerations with matters such as the accuracy of information available to a PTSP and the need for government to mandate a reporting horizon for the benefit of stakeholders across the export grain supply chain. It is evident that prospective stem reporting is essentially a standard industry practice with or without a code. However, in the absence of an agreed industry standard, the code can reflect expectations and establish requirements for this reporting.

Recommendation 4

That PTSPs continue to publish prospective daily shipping stem reports on their websites (currently referred to as port loading statements), including the information required in clause 7(2).

That the code be amended to require that all accepted bookings be reported no later than three* months before the slot opens—whether or not all clause 7(2) information is known to the PTSP—or within two* working days of a booking being accepted within this period.

That clause 7(2) information provided to and accepted by a PTSP in accordance with its agreement(s) with an exporter/customer be included on the shipping stem report within two* working days.

* Further industry consultation may be needed to confirm the appropriateness of the suggested periods.

The ACCC primarily uses stem reporting to monitor the delivery of ship loading services and to enable review of exemptions from parts 3 to 6 of the code. In this context, the ACCC indicated that less frequent, retrospective reports showing executed bookings could replace the current requirement. To avoid confusion, these could be referred to as port loading statements and the forward-facing reports could be referred to as shipping stem reports.

Recommendation 5

That PTSPs be required to provide the ACCC with retrospective port loading statements setting out the bookings for each calendar month (whether executed or not) within one month of the conclusion of the calendar month and in the form and manner required by the ACCC.

That the port loading statement include:

- information from the most recent shipping stem report that included the booking
- if a port terminal service was provided, the quantity and type of grain loaded and time the ship departed
- if a port terminal service was not provided, the reason why.

That, subject to consultation with PTSPs about practical reporting considerations, monthly port loading statements be provided to the ACCC in .csv files, similar to current practice.

Part 5 publishing requirements

Publishing available capacity and performance indicators should enable the ACCC, as the regulator, to monitor shipping patterns. In turn, this information should help the regulator to determine whether PTSPs are meeting their obligations under the code.

Expected capacity

Publishing expected terminal capacity provides transparency about the ship loading capacity of each facility owned or operated by a non-exempt PTSP. The ACCC noted, however, that amendments to the code could clarify the information published and make it more useful.

Recommendation 6

That the code be amended to clarify:

- that the total baseline capacity (including allocated capacity) of a facility that is reasonably expected to be available should be reported by shipping window for the shipping year
- that changes in available capacity—both increases and decreases—and the reasons for these (including allocation of capacity) should be clearly reported in weekly updates
- that the holder/s of capacity and the capacity they hold be reported (allocated capacity).

Performance indicators

The ACCC expressed concern about inconsistent interpretation and reporting of ‘allocated amount’ of capacity and about the time at which capacity is considered to have been allocated for the purpose of performance reporting.

Recommendation 7

That the ‘allocated amount’ reported under clause 29(1)(a) be the ‘allocated capacity’ [for each capacity holder] on the date one month before the shipping window opened.

The ACCC noted that information concerning demurrage is shared via contractual arrangement and suggested the requirement to publish related information should be removed. This was supported by stakeholders during consultations.

Recommendation 8

That any requirement for PTSPs to report demurrage information be removed (clause 29(1)(e)).

Stocks reporting

Stocks reporting is a current issue for the bulk grain export sector from paddock to port.

However, consultations made clear that the fragment of information provided by this reporting requirement in the code has little, if any, relevance on its own.

Recommendation 9

That clause 30 requiring port terminal service providers to publish stocks information be deleted.

Capacity allocation system approvals

The ACCC proposed that the effectiveness and appropriateness of a capacity allocation system should be reviewable and that it should be able to require or to initiate changes to a system in certain limited circumstances. The potential benefits need to be weighed against the commercial risks and business uncertainty that would be created by allowing reviews of capacity allocation systems the ACCC has already approved. On balance, a review of a capacity allocation system should only be warranted in ‘exceptional circumstances’. No evidence has been presented that has allowed this review to define such ‘exceptional circumstances’, however this matter could be considered by government in the context of allowing an ACCC review to be initiated following consultation with the Minister for Agriculture.

Recommendation 10

That clause 25 (‘Port loading protocol to include capacity allocation system’) continue to operate in its current form.

That consideration be given to defining the ‘exceptional circumstances’ or determining a process under which a capacity allocation system approved by the ACCC under clause 25 might be reviewed.

Extending the code to cover all grains

The code is the most recent step in the deregulation of Australia's export wheat marketing arrangements. Beyond ensuring all bulk wheat exporters have port terminal access, the objectives of the code are to promote the operation of an efficient and profitable bulk wheat export industry and to reduce regulatory burden on PTSPs. These objectives are still relevant to bulk wheat exports and potentially applicable to the export of all bulk grains.

As a general observation, the review has found that the code is functioning well and, with some suggested technical amendments, will continue to do so. No comment was received from third-party exporters or other industry stakeholders during consultations or in submissions to suggest consignments of non-wheat grains have had a different level of access to port terminal services than consignments of wheat or that they have been subjected to additional discrimination or hindrance. The ACCC noted, however, the potential for export grain consignments to fall in and out of coverage under the code.

Recommendation 11

That the code be amended to extend its coverage from bulk export wheat at port to all bulk export grains at port.

Extending the code to include up-country infrastructure

After giving initial consideration to a proposal from the ACCC, the interim report released in April 2018 found no clear justification for extending the code to cover up-country grain services. It sought supporting evidence of deficiencies in the protections offered by general competition law, or the absence of commercial or industry solutions, to understand how extending the operation of the code up-country would be a suitable response. There is clearly scope for vertically integrated operations to favour the interests of associated grain trading divisions or businesses. The practical question for this review was therefore whether the code might be an appropriate instrument to address that risk and, if so, whether the benefits of doing so exceed the potential costs.

The ACCC provided additional information in its second submission to the review. It recommended the code apply to access to storage and handling facilities owned and operated by a PTSP and located in the grain catchment area for that PTSP's port terminal facility. The proposal would apply the code only to storage and handling networks where the associated port terminal facility was not exempt from parts 3 to 6 of the code. Although the ACCC proposal would have greatest effect on Viterria in South Australia, as all its port terminal facilities are currently subject to the higher level of regulation under the code, the ACCC proposal attracted significant attention from industry stakeholders nationally and the review has examined this matter extensively.

Of the various issues relating to up-country access that were raised in consultation undertaken for the review, concern about uncompensated up-country site swaps was of most substance, particularly in South Australia. The site swap issue does not arise in Western Australia, where most grain is purchased by exporters on a free-in-store basis and out-turned at port rather than at individual up-country sites. In other jurisdictions, up-country providers generally have mechanisms to reconcile losses or additional costs from site swaps. For example, the

mechanisms established by GrainCorp for its operations in Queensland, New South Wales and Victoria provide additional coverage for the loss of canola bonification premiums and are generally well regarded by exporters. However, the mechanisms established by some other operators are not as sophisticated or comprehensive as those offered by GrainCorp.

Many other issues raised with the review related to commercial tensions and complexities in operating notionalised, commingled grain logistics systems handling variable products that are subject to factors such as insect pests and natural deterioration. These matters are foreseeable and recognised by the industry, and they are generally considered in service contracts and agreements that are subject to commercial consideration and resolution. In this context, exporters need manage commercial risks associated with the inherent limitations of these systems.

Despite there being a foreseeable risk of a vertically integrated PTSP operating its up-country network to disadvantage competing exporters with anti-competitive behaviour, the review did not find evidence of such practices. Consequently, the review has concluded – with some caution – to not recommend extending the code to include up-country infrastructure at this time.

The review was made aware of a number of grain supply chain concerns by third party exporters but found they were not systemic or nationwide in distribution, appear transient, and commercial and/or industry led solutions are available to resolve them. These include, for example, industry developing improved contract terms that provide safeguards or offer reconciliation to protect against these risks

In future, governments may consider instituting baseline regulatory access arrangements to vertically integrated up-country networks if new evidence emerges of intentional and unreasonable practices. The operation of the grain supply chain in South Australia potentially presents the greatest concern, as the ACCC recommended such provisions apply only to up-country facilities owned and operated by a non-exempt PTSP and located in the grain catchment area for the PTSP's port terminal facility. Any action will need to consider whether the port access code is the appropriate instrument for targeting up-country business conduct.

Recommendation 12

That Grain Trade Australia take the lead in engaging with open-access up-country storage operators and third-party exporters to establish and/or confirm industry standards and expectations in relation to the reconciliation of freight differentials and other costs arising from site swaps.

If, despite action by industry, new evidence emerges of a PTSP using its market power to intentionally and unreasonably restrict fair and transparent access to grain for export through operation of its up-country storage and handling network, the need for intervention, including regulation, should be considered.

1 Introduction

This review of the Port Terminal Access (Bulk Wheat) Code of Conduct—the wheat port code—has engaged stakeholders in the export grain value chain from paddock to port, including grower and industry representative organisations, exporters, port terminal service providers (PTSPs) and government agencies.

The process has provided tremendous insight into the operations, challenges and opportunities of the bulk grain export sector and, in particular, the role, impacts and operation of the code since it commenced on 30 September 2014.

Overall, the review has proposed a small number of amendments aimed at improving the operation of the code. These amendments largely stem from the Australian Competition and Consumer Commission's (ACCC's) practical experience in monitoring the code's operation over the first three years. However, the opportunity has also been taken to look more deeply into related matters—in particular, proposals from the ACCC to extend coverage of the code to all bulk grains and to apply baseline regulatory access arrangements to vertically integrated up-country storage and handling networks.

This report makes 12 recommendations for consideration and response by government in due course.

1.1 Terms of reference

The review's terms of reference were developed to be consistent with requirements in the Competition and Consumer (Industry Code—Port Terminal Access (Bulk Wheat)) Regulation 2014 and to group and contextualise matters for consideration. The regulation required the first review of the code to start within three years of the code commencing and sets out certain matters that had to be considered by the review.

The terms of reference for the review were to:

- 1) Examine the rationale, role and objectives of the Wheat Port Code and comment on
 - a) the justification for the continued operation of the Wheat Port Code over and above the generic access regime established by Part IIIA of the *Competition and Consumer Act 2010*
 - b) the effect of any changes to market conditions in the wheat export supply chain on the rationale for, and operation of, the Wheat Port Code
- 2) Assess the performance of the Wheat Port Code in meeting its rationale and objectives, including
 - a) the effect of the Wheat Port Code on the economically efficient operation of, use of and investment in port terminal facilities
 - b) the effect of the Wheat Port Code on the promotion of competition in upstream and downstream markets
- 3) Provide advice on possible amendments to the Wheat Port Code and the continued 'fit for purpose' of some of its provisions, including

- a) the power to exempt cooperatives under subclause 5(1)
 - b) the additional regulatory requirements contained in parts 3 to 6
 - c) the requirement for all port service providers to make available a port loading statement each business day under clause 7
- 4) Consider the availability and transparency of relevant market information to participants in the export supply chain
 - 5) Consider the effectiveness of, and level of competition existing under current arrangements for the transport, storage and distribution of wheat in contributing to a sustainable supply chain from farm gate to export load port.

The terms of reference and a methodology for the review were developed to ensure these matters could be adequately and appropriately addressed, recognising the range of stakeholders and varied interests across the export wheat supply chain.

1.2 Review process

The Treasury's Industry Codes of Conduct Policy Framework notes that a prescribed industry code may be subject to a review after it has been implemented for a period of time. This involves a public consultation process to seek feedback from a wide range of stakeholders. A review can be conducted by the government department with policy responsibility for the particular code and may consider options for repealing the code or amending it (The Treasury 2017).

This review of the wheat port code began with recognition of the need to consider the interests, views and experiences of the wide scope of stakeholders in the bulk grain export sector, from paddock to port.

It also began with recognition of the purpose and history of the code and its focus on ensuring exporters of bulk wheat have fair and transparent access to port terminal services.

The review was announced on 29 September 2017, and an issues paper was released to start the first round of public consultation. After considering the 14 submissions received and additional input from consultations and research, the review released its interim report on 10 April 2018. The interim report included 10 findings and made five requests for information.

Eleven submissions on the interim report were received ([Appendix A](#)), and the review taskforce met directly with over 30 stakeholders—including government agencies, grower and industry representative bodies, exporters and PTSPs—in Brisbane, Sydney, Melbourne, Adelaide and Perth during the second round of consultation. Second-round submissions were provided directly to the review and, with agreement from the authoring party, have been made public in conjunction with release of this final report.

The ACCC made public its second-round submission on 10 May 2018. The submission highlighted two key issues for consideration—extending the code to cover all grains and extending elements of the code to cover up-country infrastructure. These issues were consulted on widely during the taskforce's extensive face-to-face consultations. They were also discussed at an industry roundtable convened by Grain Growers Limited and Grain Producers Australia, which included representatives from the ACCC, Grain Trade Australia and the Australian Grain Exporters Association.

1.3 Background to the code

Wheat marketing had been regulated in Australia for nearly 100 years when the *Wheat Export Marketing Act 2008* and associated legislation ended the single desk arrangements for wheat exports.

A mandatory access test for bulk wheat port terminals was introduced in 2008 as part of the measures that ended the single desk arrangement, as there were concerns vertically integrated grain bulk handling companies might seek to deny port terminal access to other exporters in the newly deregulated market (Australia, House of Representatives 2008b). The access test was designed to ensure the statutory monopoly export marketing desk was not replaced with three regional monopolies at the ports (Australia, House of Representatives 2008a). The access test applied only to wheat and not to other grains or commodities, which were not subject to statutory marketing arrangements.

The suite of arrangements introduced in 2008 was reviewed by the Productivity Commission in 2010. The commission found the benefits of the access test would diminish and could become costly in the long term without the checks and balances of Part IIIA of the *Competition and Consumer Act 2010* (CCA). The commission recommended that, from 1 October 2014, regulated access should rely on Part IIIA supplemented by a voluntary code of conduct. It also recommended the continuous disclosure rule component (mandatory reporting of port access policies and procedures and port loading statements) of the access test should continue to be legislated, separate from the voluntary code (Productivity Commission 2010).

The then government accepted the commission's recommendations in principle and agreed a non-prescribed voluntary code of conduct, including continuous disclosure rules, should be developed to complement general competition law (Australian Government 2011). However, some in the industry felt some form of industry-specific access regulation was still needed. The need for continued regulatory oversight was recognised in the *Wheat Export Marketing Amendment Act 2012*, which made repeal of the *Wheat Export Marketing Act 2008* contingent on the establishment of a mandatory industry code before 1 October 2014.

1.4 The place of the code

Agriculture is a significant contributor to Australia's economic prosperity, particularly through exports. However, as world agricultural trade increases, production of some commodities is shifting to countries with a comparative advantage that makes them more competitive in global markets. This is placing pressure on Australia's agricultural export supply chains from paddock to port, including for Australia's wheat sector, which exports around 70 per cent of production.

CBH Group, which provides up-country and port terminal services to the highly export-oriented grains industry in Western Australia and markets grain from across Australia, noted:

WA grain has historically had a market advantage due to its geographical proximity to South East Asia, and the quality and consistency of its grain. However, the international competitiveness of WA growers is currently under significant threat, primarily because of the rise of alternative origins like the Black Sea region.

With it currently being up to approximately A\$67 per tonne more expensive to grow and land wheat into Indonesia than their competitors, WA growers will be significantly

disadvantaged by unnecessary domestic regulation that increases supply chain costs.
(Submission 2.3, CBH Group)

Like agriculture across the country, Australia's grains industry is dynamic and innovative. But it is important to continue to ensure all links in the supply chain operate efficiently and effectively. These operations underpin competition that helps to optimise returns to growers, traders, marketers and exporters, storage and logistics providers, PTSPs and other stakeholders in the export grain chain.

The code aims to ensure exporters of bulk wheat have fair and transparent access to port terminal services. The influence of the code on industry decisions and behaviours may still be in transition because it has only been in place for three years. This review assessed the effect of the code on the use of and investment in port terminal facilities and on overall competition in the export wheat supply chain. The assessment recognised the tiered application of the code, whereby only non-exempt ports are subject to parts 3 to 6.

Although the code has its origins in wheat market deregulation, the port facilities it seeks to regulate can be used to export a range of grains. As the ACCC noted:

Capacity allocation and access issues at port are not isolated to bulk wheat exports. Rather they exist in relation to all bulk grain exports, a significant proportion of which are bulk grains other than wheat ('non-wheat').

Most recently, in the 2016–17 shipping season, across all Australian ports, 60 per cent of total bulk grain exports were wheat and 40 per cent were non-wheat. (Submission 2.1, ACCC)

The code was initially conceived by the then government as a non-prescribed voluntary code of conduct. However, repeal of the *Wheat Export Marketing Act 2008* was subsequently made contingent on the establishment of a mandatory industry code. The code sits beside and should complement grains industry commercial practices and self-regulatory activities including, for example, Grain Trade Australia (GTA) codes of conduct, trade rules and contracts, standards, and dispute resolution processes.

It is important the code remains fit for purpose. Government regulation should be imposed only when it can be shown to offer an overall net benefit to the wider Australian community (Department of the Prime Minister and Cabinet 2014). This review has taken a broad and comprehensive look at the code and its impact on the grains industry now and in the future. While there may be no clear basis for substantively amending the code at this time, the review concludes that the code should be reviewed again in 2022 to ensure it remains fit for purpose as competitive forces in global wheat trade evolve.

Recommendation 1

That the wheat port access code be retained and reviewed again in 2022.

The government will consider and respond to the findings and recommendations of this review and determine whether its involvement in regulating the export grains industry remains appropriate.

2 Australia's export grain industry

Wheat is the most important individual grain crop produced in Australia by both tonnage and value. In 2015–16 the gross value of production (GVP) for wheat was \$6.2 billion—almost half of total GVP for the grains industry. Total production was around 22.3 million tonnes, or 56 per cent of total grains industry tonnage (Weragoda, Frilay & Ashton 2018).

Around 70 per cent of Australia's wheat production is exported. Over the three years to 2015–16, the gross value of wheat exports averaged \$5.6 billion per year, making it agriculture's second most valuable export commodity. The wheat export industry relies highly on transport, storage and port infrastructure to achieve these results (Cameron 2017).

2.1 Production and productivity

Australia's cropping industry includes farms engaged in growing cereal grains, coarse grains, oilseeds, pulses and rice. Productivity in the cropping industry grew by an average of 1.5 per cent a year between 1977–78 and 2014–15, with output growth of 2.6 per cent a year exceeding input growth of 1.2 per cent a year. This growth has been attributed to developments in technology, including new plant varieties, improved rotations and more efficient crop management. However, productivity growth in Australia has slowed since the late 1990s, falling behind competitors such as Argentina and the Black Sea (Xia, Zhao & Valle 2017).

Wheat production in Australia varies significantly from year to year, reflecting the highly variable nature of the climate—in particular, the amount of in-crop rain. The size of the crop in a state or region will impact on factors such as the demand for storage and logistics and the destination or end use of the grain.

Nationally, since 2013–14 annual average wheat production and export volumes have been above near-term average levels (Table 2.1), reflecting generally good seasonal conditions during the period. Of note, 2016–17 was a particularly good season, with many regions experiencing record high levels of production.

Table 2.1 Australian wheat supply and demand averages, 2000–01 to 2012–13, and for each year 2013–14 to 2016–17

Parameter	Unit	2000–01 to 2012–13 ^a	2013–14	2014–15	2015–16	2016–17 ^b
Yield	(t/ha)	1.7	2.0	1.9	2.0	2.7
Area	(mha)	12,763	12,613	12,384	11,282	12,634
Production	(mt)	21.3	25.3	23.74	22.27	34.37
Apparent domestic use	(mt)	6.03	6.78	7.15	7.26	7.58
Exports	(mt)	15.2	18.6	16.6	16.1	22.6
Unit value of exports	(\$/t)	288	326	340	312	274

^a Average. ^b Estimate.

Source: ABARES 2017b, 2018.

There are substantial differences end use of grain produced across Australia, due to markets. Over the four years from 2013–14, around 94 per cent and 86 per cent of wheat produced in

Western Australia and South Australia respectively was exported in bulk, with less than 2 per cent of the production exported in containers (Table 2.2). By comparison, around 24 per cent and 16 per cent of production in the eastern mainland states was exported in bulk and in containers respectively. Domestic industries, including flour milling, animal feed manufacture and intensive livestock production, provided competitive outlets for over half the wheat produced in the eastern states.

Table 2.2 Wheat production and export, by state, average of 2013–14 to 2016–17

Parameter	Unit	Qld	NSW	Vic.	WA	SA	Tas.
Production	kt	1,285	7,881	3,261	9,328	4,784	46
Exports a	kt	482	2,197	2,362	8,923	4,187	0
Containers b	kt	236	720	1,067	143	80	0
Bulk	kt	246	1,477	1,294	8,779	4,107	0
Bulk exports as % of production	%	19	19	40	94	86	n.a.

a Flour not included. **b** Includes bagged exports. Note: Due to rounding, the sum of container and bulk exports may not equal total export amount. **n.a.** Not applicable.

Sources: ABARES 2017b; ABS 2017.

2.2 Export wheat supply chain

The export wheat supply chain comprises facilities and services including storage, handling, container packing, freight and shipping (Figure 2.1). Historically, a single statutory grain trading body in each state owned supply chain infrastructure, including bulk wheat export terminals, to export wheat from Australia. Following the progressive deregulation of domestic and export wheat marketing arrangements, these supply chain assets transferred from public to private ownership, with the exception of CBH Group, which remains a cooperative. The three most significant port terminal owners—GrainCorp (Queensland, New South Wales and Victoria), Viterro (South Australia) and CBH Group (Western Australia; Table 2.3)—are vertically integrated businesses that provide bulk and containerised grain port services, regional grain storage and transport and export marketing services.

Figure 2.1 Grain export supply chain



Source: based on White, Carter & Kingwell 2015, updated in parts to reflect IGC 2018, Kalisch Gordon et al. 2016, and ACCC 2017a.

Table 2.3 Major integrated port and storage operator market share along the export supply chain

Parameter	Unit	CBH Group (Western Australia)	GrainCorp (eastern Australia)	Viterra (South Australia)
Average annual harvest	Mt	10.3	20.0	6.0
Approximate domestic consumption	Mt	1	9.5	1.2
% of harvest exported	%	92	50	80
Number of receival sites	no.	102 + 76 surge sites	108	103 plus 3 in Vic.)
Market share—up-country	%	Receives and stores ~ 90% of WA grain	Handles ~ 42% of east-coast grain	80% market share of SA up-country grain storage (by no. of sites)
Storage	Mt	15	23	11
On-farm storage	Mt	2.6	11.8 (NSW 6.4, Vic. 3.5, Qld 1.9)	1.2
Port ownership	no.	4	7	5
Market share—port throughput	%	90	21	90
Market share—export tonnage	%	48% WA bulk exports (2012–13)	28% eastern Australian exports (2012–13)	46% SA exports (2012–13)

Source: based on Stretch, Carter and Kingwell 2014, AEGIC (forthcoming), and submissions to this review.

In addition to the major storage operators, smaller off-farm grain storage networks are operated by other bulk grain terminal owners (or co-owners), including the following:

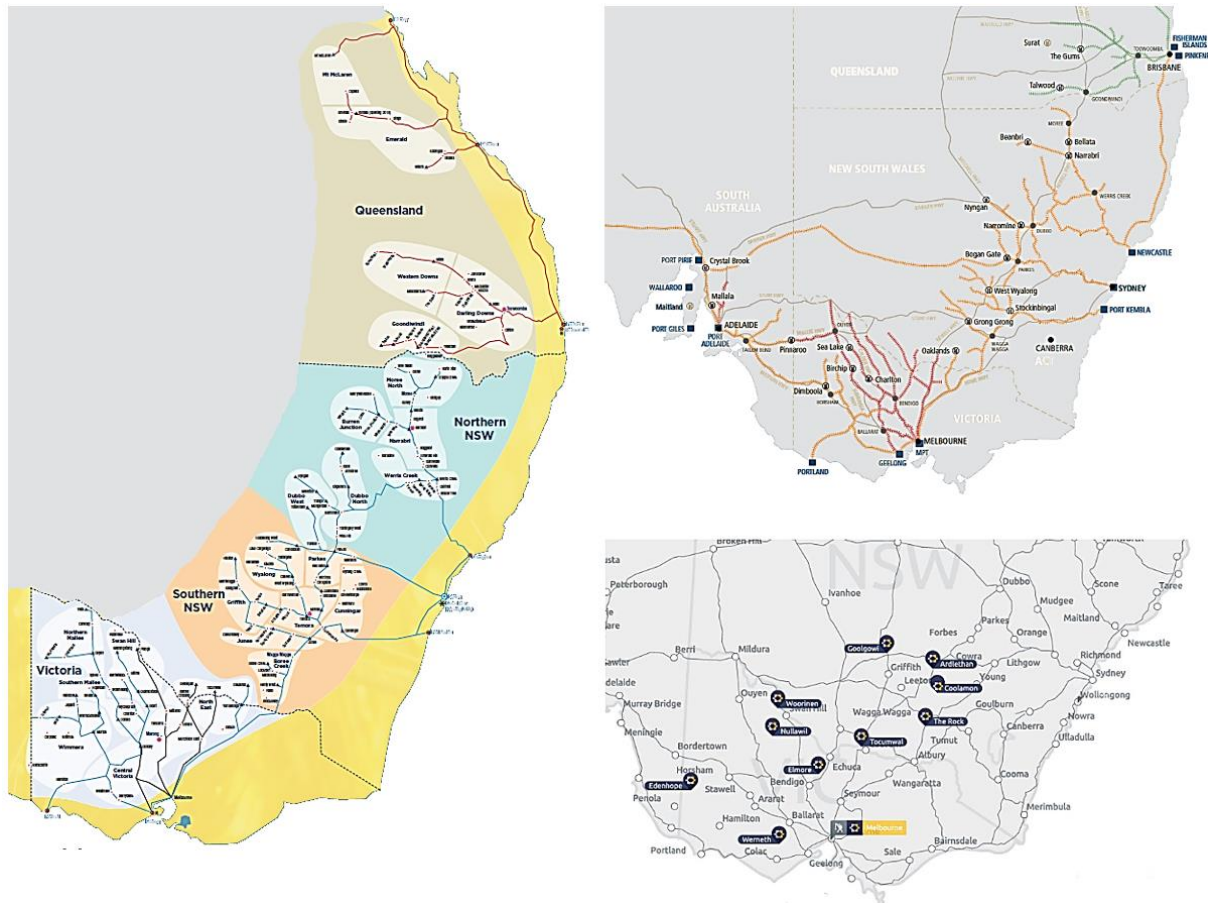
- Cargill operates a network of 22 GrainFlow receival storage centres in Queensland, New South Wales, Victoria and South Australia (Cargill 2018a; Figure 2.2)
- Emerald has 11 up-country grain receival storage facilities in Victoria and New South Wales with an overall capacity of 1.5 million tonnes (Emerald Grain 2018a; Figure 2.2)
- Bunge has two up-country grain receival storage facilities in Western Australia (Bunge 2018)
- Riordan has four up-country grain receival sites in Victoria
- T-Ports is constructing grain storage facilities at its Lucky Bay port facility on the Eyre Peninsula (South Australia) to hold 27,000 tonnes, bunkers at Lucky Bay with 360,000 tonnes of storage, and up-country storage at Lock with capacity to hold 150,000 tonnes.

Supply chains in Western Australia and South Australia are predominantly structured to deliver grain to port for export. These supply chains tend to conform to the model illustrated in Figure 2.1. In comparison, more diverse supply chains exist in eastern Australia, reflecting the fact that approximately half the grain produced is consumed domestically by the food processing or animal feedstock industries (Stretch, Carter & Kingwell 2014). On-farm storage and independent or private off-farm storage plays a more important role in these supply chains (Table 2.3).

2.2.1 Storage and handling

Ownership of off-farm, up-country storage infrastructure is regionally concentrated along state lines, especially in western South Australia and Western Australia (Figure 2.3).

Figure 2.2 GrainCorp, Emerald Grain and Cargill (GrainFlow) up-country receival sites in eastern Australia

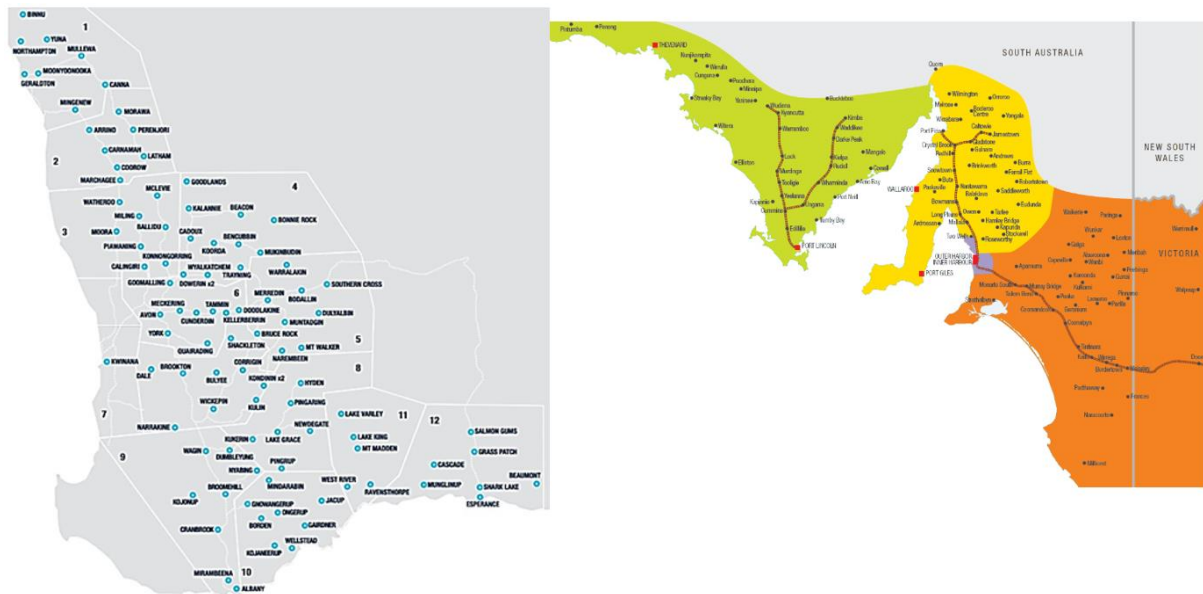


Source: GrainCorp 2018a; Emerald Grain 2018b; Cargill 2018b.

Current off-farm grain-handling and receival systems are based upon a mixture of refurbished historical assets and new assets. For example, some of GrainCorp's receival sites were established as early as 1918, and most of its older infrastructure was established in the 1960s. These facilities were constructed to handle bag-based grain transport supplied by numerous small farms and the transport systems of the time (Kingwell, Carter & White 2014).

The up-country grain storage sector is going through a period of significant change. The task of coordinating access to grain in the storage and handling system has increased significantly following the abolition of the former statutory marketing arrangements. Historically, only the appropriate statutory marketing body, principally AWB and the Australian Barley Board, could purchase and market the grain delivered into the bulk handling system. This contrasts with the current situation, where hundreds of domestic and export traders are being supplied with grain out of the grain storage systems nationally.

Figure 2.3 CBH Group and Viterra up-country receival sites in South Australia and Western Australia



Source: CBH 2016; Viterra 2018a.

The current owners of historical assets are modernising their grain storage networks to meet contemporary demand and expectations by:

- reducing the number of sites in their networks to focus on those sites that receive the most grain—for example, in the case of GrainCorp, from 252 to around 180; and, in the case of CBH Group, from 200 to 100
- increasing the use of cheaper forms of grain storage (compared with traditional concrete silos)
- using modern infrastructure to increase grain intake and outload rates, thereby reducing the time necessary for truck unloading and train loading
- constructing new sites and selling or mothballing other sites (GrainCorp 2014; CBH 2016; Submission 2.9, Viterra).

In addition to investment being made by the operators of large storage and handling networks, significant investments have and are being made by farmers in on-farm grain storage facilities and by other private providers of off-farm grain storage (that is, storage operated by businesses other than the major operators). However, there are no recent formal statistics on the amount of on-farm grain storage or private off-farm storage. Industry experts report there has been a significant increase in the amount of on-farm grain storage (AEGIC forthcoming). This increase builds on an already substantial amount of on-farm storage in east coast states and a lesser amount of existing storage in South Australia and Western Australia. There is no indication this trend toward the construction of on-farm grain storage will cease or slow as farmers look to improve their ability to manage grain logistics and marketing.

Separate from those businesses that own or co-own bulk grain port terminals, a large number of smaller businesses operate standalone up-country grain receival and storage facilities. According to IBISWorld (Johnson 2017) there were 126 enterprises offering grain storage in Australia, with 95 per cent of enterprises in the sector employing fewer than 20 staff. Viterra

noted, for example, that in South Australia there are 10 providers of up-country bulk grain storage and handling services, in addition to itself (Submission 2.9, Viterra). While at this granular level it is apparent that many competitors are small and/or specialised, domestically focused or involved with containerised rather than bulk exports, taken as a whole they do provide alternative pathways. It also suggests that targeted investment in up-country infrastructure can be commercially viable. Viterra also noted it had approved seven of these providers as third-party storage facilities for the purposes of having grain transported to its port terminals.

The review taskforce did not find any published research or evidence into how increased 'private' off-farm and on-farm grain storage is affecting the sector, but industry reports that the effects are significant. The effects are greatest in east coast states, where the trend toward on-farm storage and private off-farm storage has been underway the longest. Historically, GrainCorp (or its predecessors) had a near monopoly position in eastern Australia. However, now GrainCorp notes that in eastern Australia approximately one-third of the grain harvest is stored on-farm, 28 per cent is stored with other providers, and 48 per cent is stored in its up-country facilities. Of the grain stored in its facilities, around 30 per cent is purchased by GrainCorp. Over the past four seasons, GrainCorp purchased between 9.9 per cent and 12.3 per cent of eastern Australian production (Submission 2.4, GrainCorp).

Notionalised and open-access storage and handling systems

GrainCorp, Glencore, CBH Group, Cargill and Emerald generally offer storage and handling services using open-access arrangements where wheat delivered by growers or other parties is commingled in up-country storage. In a notionalised system, once wheat has been commingled in a storage facility with wheat of the same specification or grade, the client will be credited with a notional entitlement to the quantity and quality of wheat delivered. The specifics of the arrangement will be set out in the service provider's storage and handling agreement. The open-access system differs, for example, from systems in which specific parcels of wheat are warehoused or a client/owner reserves a cell.

Consultation for this review suggests that the open-access grain storage and handling system based on the commingling of entitlements and segregation based on quality (rather than ownership) has strengths and weaknesses for the businesses using it (Table 2.4). Perceived weaknesses of the system are often inherent in the design of the system, which dates back to the introduction of bulk handling arrangements in Australia in the 1920s. These weaknesses are not easily remedied.

2.2.2 Transport

Grain is transported by road and rail systems. Road transport is used for the local delivery of grain to off-farm storage sites. Transport from off-farm storage sites to export ports is roughly equally split between road and rail (Stretch, Carter & Kingwell 2014). Road transport costs to port are generally competitive with rail transport costs for distances of around 200 kilometres or less. Over greater distances, rail tends to be the favoured mode of transport to port, as it is cheaper (Stretch, Carter & Kingwell 2014).

However, the availability and competitiveness of rail and road transport for bulk wheat varies between regions and over time. Rail regeneration programs have been implemented in Victoria and New South Wales, while some rail lines in South Australia and Western Australia have been abandoned. Conversely, road maintenance and road and highway upgrades have occurred,

facilitating use of higher capacity trucks (AEGIC forthcoming). AEGIC has also noted that, on average across Australia, about 50 per cent of grain transported from up-country storage to port is moved on rail; in general, the quality of Australia's rail infrastructure ranks poorly compared with competing countries; and the future of rail lines used only or primarily to transport grain has been questioned because maintenance and operation costs cannot be shared with other users.

Table 2.4 Strengths and weaknesses of the commingled grain-handling system for users

	Farmers (when compared with on-farm storage)	Exporters (when compared with private network ownership)	Operators (when compared with a closed access network)
Strengths	<ul style="list-style-type: none"> • lower storage and handlings costs (for some farmers) • lower up-front infrastructure costs • lower stored grain and infrastructure maintenance requirements 	<ul style="list-style-type: none"> • lower up-front infrastructure costs • more widespread geographic coverage • increased flexibility to access stocks • lower back-office costs (through bundled service provision) 	<ul style="list-style-type: none"> • increased revenue • increased grain throughput • fixed infrastructure costs spread over multiple users • blending opportunities
Weaknesses	<ul style="list-style-type: none"> • higher storage and handling costs (for some farmers) • forgone marketing opportunities (in some cases) • foregone blending opportunities • foregone capital investment opportunities • forgone tax benefits • forgone benefits from maintaining strict grain identity 	<ul style="list-style-type: none"> • increased transaction costs • challenges in coordinating access • foregone blending opportunities • reduced execution flexibility • foregone benefits from maintaining strict grain identity • uncertainty about the location of grain out-turn 	<ul style="list-style-type: none"> • increased transaction costs • challenges in coordinating access • reduced execution flexibility for its trading arm • foregone benefits from maintaining strict grain identity

Source: Department of Agriculture and Water Resources 2018.

Storage and port operators often offer an integrated services package that includes grain storage, transport and port terminal services. Exporters may choose to use the integrated services package because of the efficiency, pricing and risk management benefits such packages can provide (Submission 2.9, Viterra). Bundled service offerings are also convenient and suit those exporters whose business models do not include staff to coordinate up-country logistics (that is, pure trading houses). However, service bundling can reduce the transparency of operating costs and create barriers for new entrants.

Viterra offers its Export Select bundled package, which provides an integrated logistics service to move grain from up-country to port, including out-turn, freight transport and port in-loading. Concerned that Export Select could lock out competitors, the Essential Services Commission of South Australia (ESCOSA) examined Viterra's related behaviours and fees, and supply chain outcomes. It noted in its draft report:

Export Select appears to result in an efficient use of Viterra’s network. It is designed to help Viterra maximise throughput through its network—an outcome necessary to achieve cost competitiveness in a global market. Additionally, customers can opt out, although few choose to do so. (ESCOSA 2018)

As noted by ESCOSA, the economic welfare consideration of bundled service offerings are nuanced, with possible reductions in the level of competition in the transport and logistic sector offset by improved logistical efficiency and lower supply chain costs (Synergies Economic Consulting 2008).

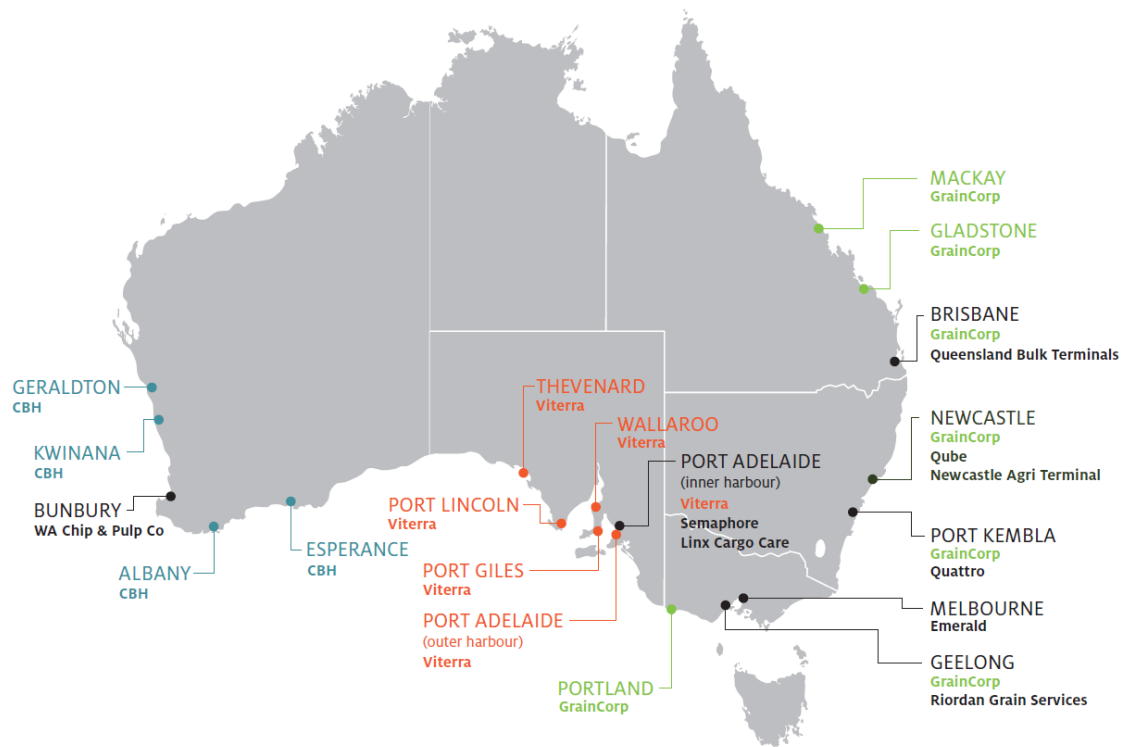
In addition to CBH Group, Viterra and GrainCorp, other businesses also run rail operations. These may be for their own use to accumulate export consignments or as part of an integrated service offering. By comparison, Riordan started as a trucking company and continues to utilise road transport, including to accumulate wheat for export direct from on-farm storage through its mobile port terminal facility at Geelong. Some port terminal facilities, including Queensland Bulk Terminals (Qld) and LINX Cargo Care and Semaphore (SA), do not have rail access and are serviced only by road transport.

Port terminal ownership is regionally concentrated along state lines—in particular, in South Australia and Western Australia (Figure 2.4). The bulk handling networks that existed before deregulation of the wheat industry, and that were owned and operated by bulk handlers, typically comprised receival sites linked to a port via rail lines. The ports were at the head of a geographic region generally referred to as a port zone. Since deregulation, this bulk handling model has changed, particularly in eastern Australia and to a lesser extent in South Australia. The range of providers of receival/storage facilities and transport/logistics services has expanded, and the current group of operators—not only GrainCorp, Viterra and CBH Group—provide services to a range of customers, including their related trading arms. The importance of port zones has lessened with the growth in road and alternative rail transport options, and their relevance has diminished, particularly in areas of high domestic competition.

2.3 Bulk wheat exporters

Australia’s bulk wheat export sector is relatively concentrated, with around 20 active businesses. While the majority own or have interests in one or more port terminals, most also export out of third-party terminals (ACCC 2017a). Many businesses in the sector are the Australian-based arms of international bulk commodity trading businesses. A small portion are independent Australian-based companies.

Wheat exports and trade in wheat around the globe are principally managed by a small number of multinational companies. The largest grain traders are Archer Daniels Midland Co (ADM), Bunge Group, Cargill, Louis Dreyfus—together often called ‘the ABCDs’—and Glencore. These companies are responsible for an estimated 70 per cent to 80 per cent of the international trade in grains (Ahmed, Hamrick & Gereffi 2014). In addition to the ABCD traders, other trading companies in Asia are expanding globally and investing in grains to meet growing demand in Asia, the Middle East and North Africa, and other regions (Ahmed, Hamrick & Gereffi 2014). Many of these international trading houses are represented in the Australian wheat export sector ([Appendix B](#)).

Figure 2.4 Bulk wheat port terminals and owners

Note: Not all port terminals will necessarily operate in any export year; QUBE's facility at Newcastle has not operated in recent years.

Source: ACCC 2017a, 2017b.

Export traders operate with different business models and different levels of interest in participating in the Australian market or in the trade of specific grain commodities. In consultation undertaken for the review, exporters reflected on the strategic factors that determine their approach to the trade in grain from Australia and the market share they achieve, including:

- appetite for trading risk, which determines up-country pricing strategies and grain trading targets. For example, some exporters have targets for the extent of the Australian wheat market they wish to acquire and export
- depth and nature of their customer base. For example, Chinese government-owned COFCO may have greater access to Chinese importing customers, while others such as multinational Glencore have a broad range of international customers
- brand recognition and reputation among farmers. For example, although Western Australian growers have a particularly strong affinity with the grower-owned cooperative CBH Group, other trading houses maintain large up-country staff networks to buy grain from farmers
- desire to utilise fixed-cost storage and train assets. This can lead asset-owning trading houses to trade at a loss during unfavourable trading conditions in an effort to maximise asset use

- commodity focus, which determines the products the exporter trades. Some trading houses are specialists in certain commodities or grades, such as stock feed, chickpeas, canola or durum wheat. In some cases, this reflects their ownership of downstream processing assets.

Exporters also reflected that, relative to the above factors, there was an undue focus by the Australian Competition and Consumer Commission (ACCC) (Submission 2.1) on supply chain asset ownership as a determinant of export market share outcomes.

2.4 Increased competition in the grain trade sector

2.4.1 World wheat trade

Over the medium term, the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) forecasts that higher production of wheat is expected to increase exports from most major exporting countries, especially in the Black Sea region. Black Sea wheat is generally more affordable than wheat from western countries because of relative costs of production. A depreciation of the Russian rouble in 2014 has also kept exchange rates favourable for exporters. The Russian Government has committed to investing in port capacity and export infrastructure, anticipating an expansion of wheat exports to North Africa and Asia (Whitnall 2018). In addition, Argentinian wheat is flowing into some Asian markets after the Argentinian Government eliminated wheat export taxes and allowed the peso to devalue in 2015 (Whitnall 2018).

For production of noodles and high-end bakery products, Asian processors generally see Argentinian and Black Sea wheat as inferior to hard, high-protein milling wheat from countries such as Australia, Canada and the United States. Recent export trends and local reports indicate that Black Sea wheat is gaining acceptance in more price-conscious Asian markets such as Indonesia, but it is unlikely to be considered fully substitutable in markets that value quality milling wheats. Future improvements in the quality and stability of Black Sea wheat exports could displace exports from higher-cost producers, including Australia (Whitnall 2018).

The Australian Export Grains Innovation Centre (AEGIC) has undertaken a series of studies exploring the costs of Australia's bulk grain supply chain and how these compare with competitor countries. These studies found average supply chain costs are higher in Australia (at \$86 per tonne) than Russia (at \$56 per tonne) but lower than Canada (at \$107 per tonne) (Kingwell et al. 2016; White, Carter & Kingwell 2015). Unique features of Australia's wheat supply chain are thought to contribute to its relatively high costs, including:

- volatile levels of wheat production due to seasonal variability, requiring the maintenance (and cost) of excess storage and transport capacity
- the low density of wheat production in the major grain-growing regions of Australia, which increases per unit transport distance and the number of grain receival sites
- the combination of Australia's geography, the highly dispersed nature of the wheat-growing regions and the low density of grain production, which leads to a high number of export port terminals servicing relatively small export volumes. This in turn leads to port terminals with low economies of scale or low levels of utilisation
- many up-country rail lines only being used for freighting grain, with little backloading of wagons, leading to high levels of under-utilisation and the need to cover rail transport costs from a relatively small volume of freight

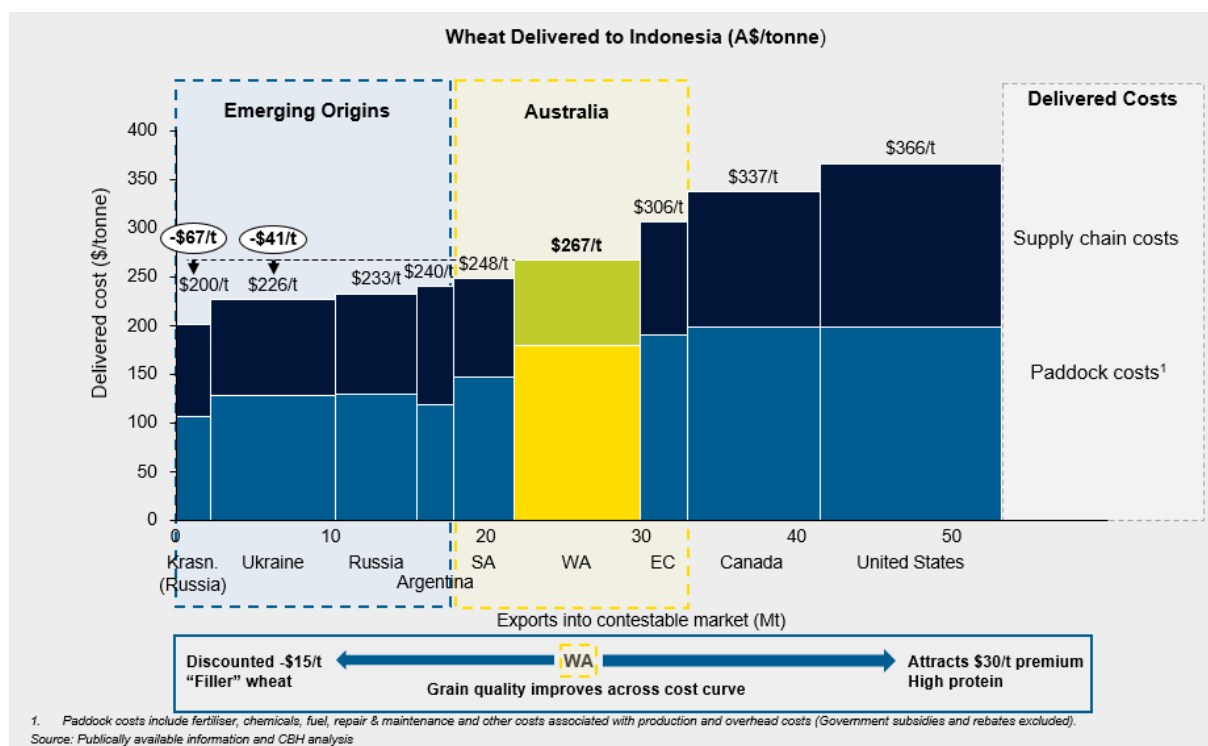
- constraints, introduced by track and siding infrastructure, that restrict train length, weight and speed (Kingwell, Carter & White 2014; Stretch, Carter & Kingwell 2014).

CBH Group provided an analysis of the cost of landing wheat in Indonesia (Figure 2.5; Submission 2.3, CBH Group). Although shipping costs from Western Australia to Indonesia are relatively low, CBH Group found that wheat from regions including the Black Sea and Argentina can be landed in Indonesia at lower total price owing to lower on-farm production costs. This is despite AEGIC's observation that the real cost of grain production in Australia over the last decade has been roughly \$100 a hectare cheaper than in the 1990s (AEGIC forthcoming).

2.4.2 Grain trading businesses

Globally it has been predicted that improved accessibility and reliability of information will substantially transform the structure and operation of the commodity trading sector. Scale economies mean that the size of businesses is important. Having global coverage and insight will provide opportunities to react and to smooth imbalances in supply and demand and make profits. Greater strategic investment in logistics and access to inventory can enable exporters to react to time-bound opportunities in an increasingly competitive trading environment (Meersman, Rechtsteiner & Sharp 2012). This may favour multinational bulk wheat traders with the resources to buy grain across the world's grain-growing regions and the ability to originate grain as needed in response to market opportunities.

Figure 2.5 Cost of grain exports from competing origins to Indonesia



Source: CBH 2018.

It may also see trading businesses seeking direct investment in supply chain assets—for example, into storage and receipt, milling, crushing or malting facilities—as many large exporters operating out of Australia have already done. In addition to increasing trading options, vertical integration by trading houses into upstream supply chain assets or downstream processing assets can stabilise profit margins and reduce overall risk in the value chain. Without

these advantages the profitability of pure trading houses will be placed under pressure (Pirrong 2014).

These dynamics are already visible in the operation and structure of grain trading businesses in Australia. Traders commented during the review's consultations that they operate in an industry with low margins. Some integrated marketer/trader–port operator businesses noted they lost money on trades, but these losses were buffered by the revenue from their storage and handling enterprises. AEGIC (pers. comm., 9 May 2018) advises that some Australian grain trading and marketing enterprises had average profit margins between 0.5 per cent and 1 per cent over the last five years—ranging from 1.0 per cent loss to 3.0 per cent profit—with margins per tonne traded averaging \$1 to \$2 per tonne.

3 Code rationale and operation

The wheat port code is the latest phase in successive government's steady withdrawal from regulatory involvement in export wheat marketing. Although originally conceived as a voluntary industry code by the Productivity Commission (Productivity Commission 2010), the code was introduced as a mandatory code under the *Competition and Consumer Act 2010* (CCA). The CCA provides a legal framework to 'ensure the welfare of Australians through the promotion of competition and fair trading and provision of consumer protection'.

3.1 Industry codes and access regulation

Codes of conduct provide a flexible regulatory framework for setting standards of behaviour in day-to-day business (Harper et al. 2015). Code of conduct are designed to set boundaries for appropriate behaviour in markets. Where adverse market behaviours result from other forms of market failure, such as monopoly power, complementary policy measures may deal more directly and efficiently with these causes.

3.1.1 Codes of conduct

The wheat port code is an example of an industry-specific extension of general rules established under the CCA that can be tailored to the operating characteristics of an industry. The normal operation of competitive markets can be robust and lead to the exit of inefficient businesses. Codes of conduct attempt to define acceptable behaviours so that unacceptable behaviours can be identified and dealt with by the industry or a regulator such as the Australian Competition and Consumer Commission (ACCC).

In economic terms, industry codes aim to reduce transaction costs by improving the trust and transparency that facilitate day-to-day business activities. Codes of conduct maintain competition by ensuring that efficient businesses are not forced from an industry by extreme anti-competitive behaviour—or 'unconscionable conduct' (Productivity Commission 2017). If innovative and efficient exporters were forced to leave the Australian grains industry as a result of unconscionable conduct by port terminal service providers, this could reduce industry competition. This reduction in competition could increase the cost of port services and, in turn, reduce prices paid to farmers for their wheat.

Unconscionable conduct can take many forms but includes collusion to set prices; exclusive dealing where businesses other than the most competitive are chosen; and deceptive, misleading or unfair conduct. These forms of unconscionable conduct are often attributed to industries in which there is a high concentration of market share. However, industry concentration via vertical integration does not necessarily lead to unconscionable conduct and is often a source of value-chain efficiency. Improved coordination of interlinked businesses can reduce costs along the value chain and increase the prices paid to farmers. Heavy-handed regulation of vertically integrated businesses risks foregoing the productivity benefits of value-chain efficiencies (Harper et al. 2015).

Similarly, monopoly power—discussed in [Appendix C](#) in relation to port terminal services in Australia—does not necessarily lead to unconscionable conduct, but unconscionable conduct can be an adverse by-product of market power.

3.1.2 Access regulation

To address concerns about refusal to supply, regulation can be used to force a port or port facility to grant access to downstream customers. A range of regulatory measures can be used to address concerns about refusal to provide access depending on the market context and the desired level of customer protection. The potential suite of regulatory measures includes:

- transparency obligations, including the publication of a reference offer, with information on prices and other terms and conditions governing the provision of access
- accounting separation obligations, which enable the regulator to monitor the underlying cost of access products as well as implicit transfer prices that are charged to the notional upstream arm
- requiring the publication of an access code that sets out the operational, logistic and financial terms and conditions governing the provision of access, including detailed dispute-resolution procedures
- equivalence standards to govern the principle of non-discrimination (OECD 2011).

Key elements of the code include fair and transparent access to port terminal services, avoidance of discrimination and hindrance, and transparency through publication obligations. However, the existence of the code does not in itself prove the need for ongoing port access regulation or provide evidence the code is the most appropriate, efficient and effective policy response.

3.2 Purpose and context of the code

The stated purpose of the wheat port code is:

- to regulate the conduct of port terminal service providers (PTSPs) to ensure that exporters of bulk wheat have fair and transparent access to port terminal services.

The objectives of the code are to:

- promote the operation of an efficient and profitable bulk wheat export industry
- provide a regulatory framework to ensure all bulk wheat exporters have port terminal access
- reduce unnecessary regulatory burden on port terminal service providers.

Access to port services on fair and reasonable terms affects the operation of related markets. This includes the up-country wheat market—ensuring farmers are paid a fair price for their wheat—and the up-country storage and logistics market—ensuring new entrants have access to port terminal services.

It is necessary to understand the context in which the code operates—including economic, behavioural, policy and regulatory context—and the structure and operation of Australia's wheat and broader grains industry when investigating the matters set out in the review's terms of reference.

3.2.1 Economics and competition

Bulk export terminals are essential infrastructure in the export wheat supply chain—wheat must travel up an elevator and onto a ship before it can be exported. However, there is a risk that particular terminals could exhibit monopoly power owing to factors including historical

government and industry policy, location, and high costs of replacing or duplicating this infrastructure, restricting competition ([Appendix C](#)).

The code recognises the significance of port terminal facilities. It aims to facilitate third-party access and address economic risks associated with the potential monopoly power of port operators. Potential abuses include:

- *excessive pricing*—charging fees well above those in a competitive market, to the maximum level customers can bear
- *refusal to supply* (where the owner is also a wheat or grain exporter)—a vertically integrated terminal operator may have an incentive to deny access to its port terminal facilities to artificially limit competition in related markets (grain acquisition or up-country transport and storage) to increase its profits
- *tying and bundling of ancillary services* (where the owner operates up-country storage and handling infrastructure and services)—when discrete products are sold as part of the same transaction, allowing for cross-subsidisation of the competitive product and creating a barrier for new entrants (after OECD 2011).

Of the possible abuses of market power, the code aims to address concerns about the possible refusal by port terminal operators to provide services to third-party exporters or discrimination against third-party exporters in favour of an operator's own exporting arm.

The practical realities of doing business can constrain the extent to which monopoly power can be exercised. For example, the market power of a natural monopolist can be dissipated by the threat of corporate takeover and the risk that charging excessive prices will provide an incentive for others to build a new port nearby.

Similarly, the ability of exporters to pay low prices to farmers is limited to the cost of transporting wheat to the next lowest cost collection point or by the risk another buyer will create a new pathway to market (for example, via the container trade). The geographic proximity of alternative ports and competitive market structures partly explains why monopoly power is of less concern in the wheat markets of eastern Australia (Chapter 2).

3.3 Operation of the wheat port code

The code establishes an industry-specific bulk wheat port terminal access arrangement to help prevent vertically integrated PTSPs discriminating against third-party exporters in favour of the PTSP's exporting arm.

3.3.1 Two tiers of targeted regulation

All PTSPs must comply with parts 1 and 2 of the code, but only those that have not been exempted under subclauses 5(1) and (2) of the code must comply with parts 3 to 6.

Key aspects of the two tiers include the following.

Parts 1 and 2

Port terminal service providers must:

- 1) deal with exporters in good faith

- 2) publish a daily statement about ships due to load at the port (shipping stem)
- 3) publish standard information about how they allocate capacity and manage demand for their services (port loading protocol)
- 4) publish standard terms and reference prices available to all exporters.

Parts 3 to 6

Port terminal service providers that have not been exempted from these parts must:

- 1) allocate available port terminal capacity through a mechanism that applies equally to all exporters (capacity allocation system approved by ACCC)
- 2) have an access agreement in place when providing services
- 3) publish certain information on its website, such as the amount of capacity available on a weekly and annual basis, performance indicators and grain stocks at each port terminal
- 4) undertake a process to amend its port loading protocol, including consultation
- 5) comply with dispute resolution processes (including mediation and arbitration).

Part 3 of the code provides that, when exporters and PTSPs are negotiating an access agreement, either party may request mediation or arbitration. Participation in mediation is voluntary, while participation in arbitration is mandatory and any arbitration initiated under the code must be advised to the ACCC. The parties choose a mediator or arbitrator, and the process is conducted independently of the ACCC. To date the ACCC has not been advised of any mediation or arbitration under the code.

3.3.2 Exemptions

Subclause 4(8) of the code says parts 3 to 6 of the code will not apply to a PTSP if a determination has been made under clause 5 that it is an exempt service provider.

Subclause 5(1) of the code provides the Minister for Agriculture may determine a PTSP is an exempt service provider if satisfied the provider is a grower-owned cooperative that meets specified criteria. On 17 November 2014 the minister declared exempt CBH Group's port terminals at Albany, Esperance, Geraldton and Kwinana in Western Australia (Table 3.1).

Subclause 5(2) of the code provides that the ACCC may determine a PTSP is an exempt service provider after having regard to matters (a) to (j) in subclause 5(3). To date the ACCC has considered 14 and granted 13 exemptions (Table 3.1). The ACCC's predominant consideration in exemption determinations has been the existence of effective inter- or intra-port terminal competition.

Three of GrainCorp's seven terminals (Mackay and Gladstone in Queensland and Portland in Victoria) and all six of Viterro's terminals in South Australia remain covered by parts 3 to 6 of the code. In consultation undertaken for the review, stakeholders indicated that GrainCorp's non-exempt ports played only a small role in the industry. Mackay and Gladstone handle small volumes of grain, and Portland's grain catchment overlaps with other terminals in Geelong, Melbourne and Adelaide.

Table 3.1 Bulk wheat export ports and status under parts 3 to 6 of the wheat port code

Port location	Operator/s	Existing or new entrant since Sept 2014	Status	Date of decision	Decision-maker
Western Australia					
Albany	CBH	Existing	Exempt	17 November 2014	Minister
Esperance	CBH	Existing	Exempt	17 November 2014	Minister
Geraldton	CBH	Existing	Exempt	17 November 2014	Minister
Kwinana	CBH	Existing	Exempt	17 November 2014	Minister
Bunbury	WA Chip & Pulp Co	Existing	Exempt	24 September 2015	ACCC
Victoria					
Melbourne	Emerald	Existing	Exempt	25 June 2015	ACCC
Geelong	Riordan Grain Services	New entrant	Exempt	28 July 2017	ACCC
Geelong	GrainCorp	Existing	Exempt	25 June 2015	ACCC
Portland	GrainCorp	Existing	Not exempt	25 June 2015	ACCC
Queensland					
Brisbane	GrainCorp	Existing	Exempt	24 September 2015	ACCC
Brisbane	Queensland Bulk Terminals	Existing	Exempt	24 September 2015	ACCC
Gladstone	GrainCorp	Existing	Not exempt	Exemption not sought	n.a.
Mackay	GrainCorp	Existing	Not exempt	Exemption not sought	n.a.
New South Wales					
Newcastle	GrainCorp	Existing	Exempt	1 October 2014	ACCC
Newcastle	Newcastle Agri Terminal	Existing	Exempt	30 July 2015	ACCC
Newcastle	Qube	Existing	Exempt	30 July 2015	ACCC
Port Kembla	GrainCorp	Existing	Exempt	1 April 2016	ACCC
Port Kembla	Quattro a	Existing	Exempt	1 April 2016	ACCC
South Australia					
Port Adelaide	Semaphore	New entrant	Exempt	28 July 2017	ACCC
Port Adelaide—Inner Harbour	Viterra	Existing	Not exempt	Exemption not sought	n.a.
Port Adelaide—Outer Harbour	Viterra	Existing	Not exempt	Exemption not sought	n.a.
Port Adelaide	LINX Cargo Care b	New entrant	Exempt	11 October 2017	ACCC
Port Giles	Viterra	Existing	Not exempt	Exemption not sought	n.a.
Port Lincoln	Viterra	Existing	Not exempt	Exemption not sought	n.a.
Thevenard	Viterra	Existing	Not exempt	Exemption not sought	n.a.
Wallaroo	Viterra	Existing	Not exempt	Exemption not sought	n.a.

a Quattro announced its intention to construct its facility on 28 March 2014, and the first vessel was loaded on 29 March 2016. **b** Formerly owned by Patrick Stevedoring Pty Ltd. **n.a.** Not applicable. **ACCC** Australian Competition and Consumer Commission.

Source: ACCC 2017b.

Exemptions may be revoked under subclauses 5(5) and (6) by the respective decision-maker if circumstances relating to the matters that must be considered in determining an exemption change. In this case, the now non-exempt PTSP would have to comply with parts 3 to 6.

3.4 Future operation of the code

The terms of reference for this review were developed to be consistent with requirements in the Competition and Consumer (Industry Code—Port Terminal Access (Bulk Wheat)) Regulation 2014 and to group and contextualise matters for consideration. At its highest level, the review is tasked with considering whether the code should continue or be revoked/repealed. If the code is to continue, the review is tasked with providing advice on potential amendments. The terms of reference provide guidance on the matters to be considered in reaching any conclusions.

Given the deregulatory process the wheat industry has experienced since the 1990s, it is incumbent on the review not only to consider the current situation of the wheat industry but also to anticipate how the industry is changing and the conditions under which the next phase of deregulation might, for example, see a transition from government regulation to industry self-regulation. In essence, the review should consider whether there is and will continue to be a net benefit to industry and Australia more broadly from application and operation of the code.

In these considerations, it is important to keep in mind that the two-tiered design of the code results in greater impost upon non-exempt PTSPs. As parts 3 to 6 of the code apply the strongest regulation, they are also the parts due the greatest attention. However, it is possible that elements of part 2 in particular are valuable and deserve to be retained and even strengthened.

The review's interim report included a request for information:

Noting the desire among some industry participants for greater industry self-regulation, and the reluctance among other industry participants for this proposal, what further work is required by the industry to prepare for possible transition to self-regulation? What governance arrangements would need to be established to ensure compliance with a voluntary industry code of conduct? (Department of Agriculture and Water Resources 2018)

There was not a strong response to this request for information during the second round of consultation or in submissions. One interpretation of this is that exporters of bulk wheat have fair and transparent access to port terminal services. If this is occurring when most of them are exempt from the strongest parts of the code, and no-one is using the code to access arbitration, a case might be made to reduce or remove government regulation.

Grain Trade Australia (GTA), as the peak industry representative body—soon to bring the Australian Grain Exporters Association under its umbrella as a new sector council—has developed a range of commodity trading standards, trade rules and standard contracts, and dispute resolution procedures. These provide the most visible model for industry self-regulation at present. However, some stakeholders expressed concerns about the adequacy of possible enforcement mechanisms in an industry-administered code of conduct—noting again that nobody is currently using either voluntary or mandatory arbitration under the code.

The two submissions from the ACCC suggested some 'technical' amendments and also that the code be extended to cover all bulk grains and apply baseline regulatory access arrangements to

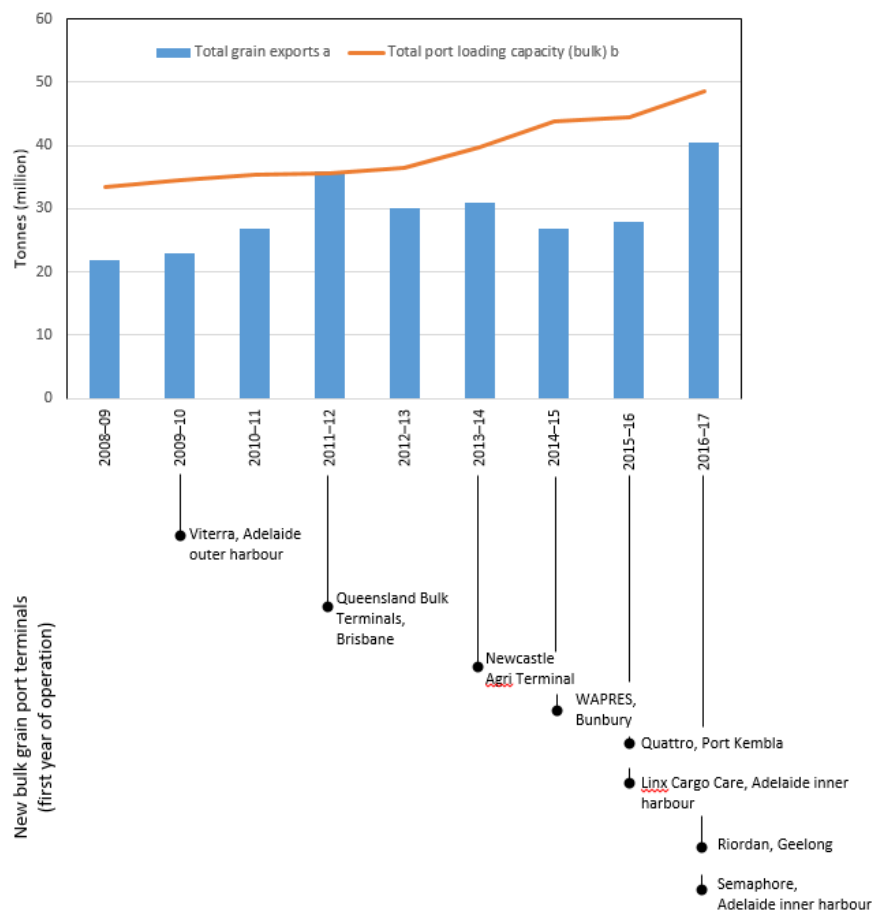
vertically integrated up-country storage and handling networks (that is, the code be extended to cover up-country storage sites).

In considering how the code will operate in future, it is necessary to understand the policy and regulatory process, including the requirement for regulatory impact statements (RIS). The current code is a port terminal access code for bulk wheat. While the regulatory process allows for amendments to correct or improve the operation of the code, substantial changes may require a new or separate policy and regulation process to be undertaken. In this scenario, amending the current code may not be the preferred outcome and it may be preferable to initiate new regulation. The RIS process requires proponents of major amendments to the code to show that the benefits of doing so outweigh the costs. No submissions of this kind were received by the review.

3.4.1 Changes to market conditions

New port terminals have been built around Australia since bulk wheat marketing was deregulated in 2008 (Figure 3.1). This includes terminals at Brisbane, Newcastle (two; one no longer operates), Port Kembla, Geelong, Adelaide (three) and Bunbury, creating competition with incumbent terminal operators. Further new wheat export terminals are being built, such as the T-Ports port terminal on the South Australian Eyre Peninsula.

Figure 3.1 Australian bulk grain export capacity, 2008–09 to 2016–17



Source: **a** based on data from ABARES 2018, 2017b and 2015; **b** based on ACCC 2017a and 2017b and sources therein and Submission 1.6, CBH Group. 'Total grain exports' includes wheat, barley, canola, sorghum, oats, chickpea, lupins and field peas in bulk and containers.

Since the introduction of the code, several operators have commenced using mobile ship loaders to load export cargoes. These facilities have lower construction costs than traditional grain export terminals, reducing the barriers for entry. In some cases, exporters using these facilities source grain from on-farm storage or private storage rather than drawing grain from the PTSPs up-country grain storage facilities. These new supply chain models—utilising low-cost port terminal facilities and on-farm grain storage or independent private storage rather than traditional off-farm grain warehousing—may expand in coming years, but this will only become apparent in time.

While new port terminals continue to be established, some regions have little or no intra- or inter-port competition. To date, investment in new competitive port capacity in South Australia has not matched that in east coast states. It is also possible future mergers or acquisitions among incumbent port operators could reduce the level of competition at some ports.

The interim report examined the effects of new entrants since the code was introduced on the structure of the market, the availability of elevation capacity and access to port terminal services. It found that, overall, the structure of the bulk wheat industry and concerns that existed in 2014 about potential monopolistic behaviour by PTSPs in some regions continued to be observed today. It also found some exporters reported concerns about their ability to access export capacity or the conditions related to exporting at some terminals, despite general improvements in access to elevation capacity nationally. Some concerns may be due to the record-breaking 2016 winter crop, which tested the capability of grain supply chain infrastructure across Australia, leading to some logistical challenges.

In submissions on the interim report, grain grower representative bodies considered that the modest changes in the structure of the industry since the introduction of the code provided support for the code to be retained. It is unclear from these submissions how grower groups think the code is operating to improve port access. For example, WAFarmers stated:

WAFarmers supports the retention of the Code, as there have not been any significant changes to the market since the Code's inception. However the Code has only been in operation for 4 years, and WAFarmers does not consider that timeframe to be adequate to assess the operation of the Code, and the wider port regulatory framework that the Code operates within. (Submission 2.2, WAFarmers)

Along similar line, GrainGrowers submitted:

The Code was introduced in [sic] 30 September 2014 to regulate the conduct of bulk wheat terminal service providers. The Code was designed to:

- I. Provide other exporters with access to port terminal facilities on fair and reasonable terms.
- II. Mitigate the potential abuse of market power and monopolistic behaviour by vertically integrated businesses that provided port terminal services and exported wheat.

And in 2018, these remain valid and necessary objectives of the Code. (Submission 2.8, GrainGrowers Limited)

In contrast with other grower representative bodies, the Pastoralists & Graziers Association (PGA) of Western Australia said:

The PGA's position is for the Code to be repealed. The timing for this should be near term.

The PGA has consistently supported the complete deregulation of Australia's wheat marketing arrangements. (Submission 2.11, Pastoralists and Graziers WA)

Three of the PTSPs providing port and open-access up-country services—GrainCorp, Viterra and CBH Group—supported a transition to full deregulation. In its submission, GrainCorp, which operates both exempt and non-exempt port terminal facilities, said:

The Australian grains industry has demonstrably made a positive transition following deregulation, yet faces an increasingly competitive global trading environment. GrainCorp reiterates its recommendation that the industry should continue the deregulation process and move to a more industry self-regulated model for the Code, where governance and administration rest with an appropriate industry body. This is consistent with Productivity Commission recommendations made in 2010 and is how the overwhelming majority of industry transactions are already successfully handled. This transition could include provision for further review to ensure there were no unintended consequences. (Submission 2.4, GrainCorp)

In consultations undertaken by the review taskforce, exporters that use GrainCorp, CBH Group and Viterra port services, while supporting the continuation of the code, also observed that concern about port terminal access had not turned out to be the issue that industry had thought it could be when the statutory single desk bulk wheat marketing regime was abolished.

3.4.2 Terminal access in the absence of regulation

The interim report requested information on factors that would mitigate a PTSP's trading arm capturing a regional grain market and would encourage a PTSP to grant access to third-party exporters. In its response, CBH Group reflected on factors relevant to its business, including:

- obligations under the *Bulk Handling Act 1967* (WA)
- the expectation of members that CBH Group—as a grower-owned cooperative—provide exporters with an open-access, low-cost export service that enables growers to maximise their grain marketing options
- limits on the business' sales and marketing resources needed to sell grain
- the presence of established and/or contracted buyers to pay for access services and share the risk of marketing the entire annual crop
- the considerable trading risk from holding the entire Western Australian grain volume for the 12 to 18 months required to market it and the resultant risk of being unable to sell the full volume
- acquiring the entire Western Australian crop (average 12.2 million tonnes) would require a significantly larger finance facility than CBH Marketing and Trading currently borrows (and would almost certainly require security over the CBH Group storage and handling business)

in order to purchase that volume from growers as ‘cash’, ahead of selling that grain to international markets. In CBH Marketing and Trading’s case, securing such a facility, and in turn managing the assorted trading risk (including foreign exchange, futures and freight), represents an unacceptable level of risk

- grain growers manage on-farm financial risk by avoiding selling their entire harvest to a single exporter (Submission 2.3, CBH Group).

Along similar lines, GTA submitted that vertically integrated operators would seek to encourage multiple buyers to participate because they may not be willing to assume the large and potentially unmanageable price risk associated with owning or trading a large quantity of grain. However, they would seek to maximise volumes handled up-country to generate and maximise throughput revenue. As such, vertically integrated port terminal operators were likely to see benefits from a greater number of buyers operating within their network, with growers incentivised to deliver their grain to their local site in response to the competitiveness of bids from multiple buyers (Submission 2.10, Grain Trade Australia).

In the context of the competitive east coast grain and supply chain services market it operates in, GrainCorp advised it had a strong commercial interest in acting in a manner that maximised volume throughput in its infrastructure, given the competitive alternatives its customers had and the low utilisation rates of its fixed assets (Submission 2.4, GrainCorp). Viterra advised it was essential that its terms and conditions of access to port terminal and up-country services (including price terms) were reasonable. If not, exporters and traders of grain would readily move their investment and shipping programs to other grain-producing regions and PTSPs (Submission 2.9, Viterra)—for example, CBH Group in Western Australia.

As noted by GTA, PTSPs are separate businesses and operate in different market environments depending on their location (Submission 2.10, Grain Trade Australia). Historically, businesses with large supply chains and ports, taking in and exporting the production of a whole state, have operated on an open-access basis. More recently, some port terminals have developed to service smaller supply chains—for example, Bunge–WAPRES and LINX–Cargill have adopted a sole-user business model. Some other terminals tend mainly to service their trading arm, due to the interest the PTSP has in maximising use of its facilities and difficulty in attracting the business of third-party exporters.

The review also notes the profitability of integrated businesses can differ significantly, with up-country grain storage and port terminal services enterprises being significantly more profitable than their related trading enterprise (at an enterprise level and per tonne handled; AEGIC, pers. comm., 9 May 2018). It is an empirical question whether it would be rational for a firm to risk the long-term profitability of its more profitable enterprise to advantage its less profitable enterprise given the absence of strong natural monopoly characteristics in either market.

3.4.3 Higher tier regulation—parts 3 to 6

The code is designed with a two-tiered regulatory arrangement. This enables government intervention and the associated costs on business to be reduced at ports where market forces or the port terminal operator’s business structure provides sufficient incentives for desirable behaviour. The status of port terminal under parts 3 to 6 of the code is presented in Table 3.1.

The interim report examined the two-tiered structure of the code and found, on balance, this structure appears to be operating as intended. Regarding the costs associated with the two tiers of the code, the interim report found:

- 1) Part 2 of the code imposed low marginal cost on PTSPs, and supply chain stakeholders valued the port loading statements, policies and procedures, and standard terms and reference prices published on a mandatory basis.
- 2) Parts 3 to 6 of the code imposed direct costs and reduced operational efficiency at non-exempt terminals. This has had negative effects on PTSPs and exporters that have not been able to execute at short notice.

As noted in the interim report, the additional measures in parts 3 to 6 of the code are consistent with established international regulatory practice to guard against discrimination in port or port service access (OECD 2011). The ACCC responded to the interim report's finding on the reduced operational flexibility associated with part 3 to 6 of the code:

The ACCC does not consider that the application of the obligations in parts 3 to 6 of the code to PTSPs with market power results in market distortions. To the contrary, the regulatory obligations are designed to correct market distortions arising from the presence of market power at monopoly facilities.

The interim report notes that exports have declined at GrainCorp's Portland facility. There are a range of reasons why this may have occurred including decreased production over several years, declining transport standards and increasing container trade from Victoria. More recently, exports from Portland have increased. The ACCC does not consider that exports are likely to decline as a result of an ACCC decision not to grant an exemption. (Submission 2.1, ACCC)

However, in consultations undertaken to inform the review, both exporters and PTSPs noted the reduced operational and commercial flexibility at ports covered by parts 3 to 6. In part, this may be an unavoidable part of regulating port facilities that possess market power—with consequential benefits in terms of the fairness and transparency of access. This is supported by evidence that parts 3 to 6 of the code reduce the efficient operation of markets. As the operator of six ports in South Australia covered by parts 3 to 6 of the code, Viterra submitted:

As a result of exemptions granted under the Code, the only port terminal service providers required to comply with the more onerous requirements contained in Parts 3–6 of the Code are Viterra (in respect of its port terminals at Port Adelaide (Outer Harbor and Inner Harbour), Port Lincoln, Port Giles, Wallaroo and Thevenard) and GrainCorp (in respect of its port terminals at Portland in Victoria and Mackay and Gladstone in Queensland).

Given the exemptions that have been granted in the past two years, the 'national' Code has a clearly disproportionate focus and impact on port terminals in South Australia. The unequal application of the Code has had the undesirable effect of discriminating against the South Australian industry, leading to distorted and inefficient market outcomes.

Where a port terminal service provider is not exempt from Parts 3 to 6 of the Code, it is less able to respond to operational requirements, changes in market conditions, and the interests of both the provider and customers. As a non-exempt port terminal service provider, Viterra has at times been less able to offer timely and flexible commercial solutions, which had disadvantaged users of its services and ultimately grain growers in the (sic) South Australia. (Submission 2.9, Viterra)

In consultation done for the review, Viterra's experiences with the operational limitations imposed by parts 3 to 6 of the code were supported by third-party exporters that used Viterra's and GrainCorp's regulated terminals. The ACCC (2017a) reported similar feedback from third-party exporters, who are the intended direct beneficiaries of the code. The review was not presented with information on how often potential marketing opportunities were stifled by the port loading protocol approved by the ACCC under parts 3 to 6 of the code or what the consequences of this were.

The review notes that, as competition in the international grain trade intensifies and export marketing become more opportunistic, the costs to exporters from the operational inflexibility introduced under parts 3 to 6 of the code could be expected to increase. New investment in port terminal capacity, rather than regulated allocation processes, offers the best solution to overcoming any remaining capacity constraints.

The interim report found there should be flexibility to exempt port terminals from parts 3 to 6 of the code where there is a history of providing access on fair and reasonable terms to third-party exporters. Such exemptions could be subject to review—for example, as part of the ACCC's annual bulk wheat ports monitoring process. However, the ACCC disagreed with this approach in its response to the interim report, stating:

A party's behaviour while complying with regulatory obligations is not a reasonable predictor of that party's behaviour once it is no longer subject to those obligations.

Exemptions should be based on a competition assessment that considers the market conditions which can effectively constraint a PTSP's ability and incentive to utilise market power in the absence of regulation under Parts 3 to 6. Exemptions on grounds other than competition (such as the cooperatives exemption for CBH) would not be appropriately conducted by the competition regulator. (Submission 2.1, ACCC)

The review notes it is ultimately an empirical question as to how a party might behave in the absence of the code. However, on balance the taskforce considers the provisions of part 3 to 6 of the code should be retained, but only until the next review. It notes that, if the development of new port terminals and competition continues at its current rate, this is likely to undermine the relevance of these provisions in the medium term. All future claims to strengthen and expand the code need to be supported by evidence that the benefits exceed the costs.

3.4.4 Cooperative exemptions

The code allows the relevant minister to exempt a port terminal facility from parts 3 to 6 of the code if the facility is owned by a grower-owned cooperative. The code also provides for the minister to revoke such an exemption.

Clause 5(1) was put into the code in response to grain grower representative organisations' submissions on the exposure draft of the code (Grain Producers Australia et al. 2014; WAFF 2014). These stakeholders considered the incentive structure created by the cooperative business model obviated the possibility these businesses would foreclose on bulk wheat exports to their own benefit and at the expense of growers. The government accepted this argument.

Under this provision, all four CBH Group ports in Western Australia have been granted exemption from parts 3 to 6. The interim report noted that, following exemption, port access at CBH Group's ports had improved due to subsequent investment in elevation capacity and streamlined access arrangements for exporters.

In its response to the interim report, WAFarmers expressed support for the cooperative exemptions provision:

Currently all bulk grain terminals in WA are exempt, with CBH as the operator of 4 ports being exempt due to a ministerial exemption, and Bunge on the grounds of a level regulatory playing field in WA. The exemption to WA ports improves the industry's ability to compete in export markets.

The exemptions that CBH operate under are based on their co-operative status. WA grain growers are the owners, shareholders, and major participants in the WA supply chain. CBH is a co-operative and a marketer of all grain that is delivered and consigned to CBH for sale, this allows the WA supply chain to operate with as minimal costs as possible. A low cost supply chain that is fundamentally member operated means growers are not financially disadvantaged by privatisation or by overseas investors. (Submission 2.2, WAFarmers)

CBH Group's submissions to the review were supportive of its exemption and noted the benefits that it had provided its business, grower members and third-party exporters.

The taskforce notes that, following CBH Group's exemption, access to CBH Group's ports has been consistent with the objectives of the code. Were this not the case, the code provides for the exemption to be reviewed and possibly revoked by the minister.

3.4.5 Alternative regulatory or non-regulatory arrangements

The issues paper and interim report considered whether other regulatory or non-regulatory arrangements might operate in place of the code. Other regulatory approaches would mostly rely on the National Access Regime under Part IIIA of the CCA.

The interim report found alternative regulatory or non-regulatory access arrangements are not warranted or appropriate at this stage. It formed this assessment on the basis of:

- the costs and time involved in exercising Part IIIA of the CCA, which discourage potential access seekers
- mandatory codes tending to be favoured over voluntary industry codes when problematic behaviour between industry participants stems from an imbalance of bargaining power (ACCC 2011).

However, the interim report noted different stakeholder opinions on the extent of the imbalance of bargaining power between industry participants, given the multinational nature of many trading houses.

The position taken in the interim report that the code be retained and subject to a further review in 2020 was generally supported in submissions and in industry consultation. However, given the need to gather further experience on the operation of the code, particularly after any amendment arising from the current review, this review believes the code should be reviewed again in 2022.

Noting the desire among some industry participants for greater industry self-regulation, and the reluctance among other industry participants for this proposal, the interim report made a request for further information about preparatory work required by the industry to prepare for possible transition to self-regulation. In its response to the interim report, GTA said:

In principle, reducing the regulatory burden should reduce costs in the supply chain and consequentially, improve grower and supply chain competitiveness.

While current evidence supports the need for continued oversight, it is also evident that the industry is adjusting and moving in right direction.

The Code was an important step in moving the industry to a lower regulatory burden environment enabling the industry to move away from the Access Undertakings that were introduced at the time of bulk wheat export deregulation.

A longer-term direction for the industry should be to aim to move towards well balanced regulation, and where possible, align with industry agreed and managed frameworks.

There would be several aspects to be considered in moving to an industry agreed framework including that any such model would require:

- obligations on both port terminal service providers and exporters. The current provisions that exempt ports could be a good model for industry to consider; and
- a robust complaints handling procedure and dispute resolution mechanisms with in principle support of participants. (Submission 2.10, Grain Trade Australia)

In its submission on the interim report, CBH Group said:

It is CBH's view that the next review of the Wheat Port Code in 2020 represents the opportunity for the Australian grain industry to commence transitioning towards repeal of the Wheat Port Code, and that related issues—including the potential for self-regulation—can also be considered through that review process.

Until that time, given the significant resources already expended by CBH to ensure compliance with the Wheat Port Code, it is sensible for the system to continue in its current form. (Submission 2.3, CBH Group)

In its submission on the interim report, Viterra stated:

The Department has requested views on how the industry could move to self-regulation.

This appears to be a position that the industry would favour in the coming years, with little apparent appetite for extending the reach of the Code. Viterra considers that the industry would benefit by a move to self-regulation. As noted above, there has been significant disadvantages (sic) associated with the current Code, including its unequal application disadvantaging growers in particular regions. In addition, self-regulation will remove the costs and burdens associated with regulation and will more easily be able to take account of efficiency considerations in a complex supply chain. Which direction the industry decides to take will, however, require a robust industry discussion.

A move to self-regulation would align with the recommendations of the Productivity Commission in 2010, and the Government's stated policy intention (in response to the Productivity Commission's report) to move the industry to full deregulation. (Submission 2.9, Viterra)

Industry-administered codes of conduct provide a number of potential benefits compared with mandatory codes, including greater flexibility, ease of amendment and sense of industry ownership (ACCC 2011). During the review it was noted some of the shortcomings of mandatory codes are apparent with the wheat port code—in particular, the lack of flexibility in the operation of the code and lack of industry engagement with it. However, not all businesses are comfortable with the option of an industry-administered code of conduct at this stage. It would be useful in advance of the next review of the code for industry to invest in building confidence along the supply chain and managing difficult relationships among competing businesses so that industry can be better prepared for the possible transition to industry-led regulation in the future.

4 Supply chain operation, competition and investment under the code

The code seeks to regulate third-party access to essential port terminal infrastructure used to export wheat. This form of access regulation can have both positive and negative effects on economic efficiency and the promotion of competition in dependent markets. The potential benefits and costs associated with regulated third-party access to infrastructure services are summarised in Table 4.1.

Table 4.1 Potential costs and benefits of regulated infrastructure access arrangements

Benefits	Costs
Improvements to economic efficiency where excess pricing and denial of access is reduced.	Decreasing the incentive of asset owners and access seekers to innovate or invest in regulated infrastructure services.
Increased competition in dependent markets that potentially delivers long-term benefits through competitive stimulus for innovation and cost reduction.	Costs incurred by infrastructure service providers from coordinating multiple users of its facility, including additional maintenance costs, reduced operational efficiency and flexibility and problems with coordinating investment in upgrading the infrastructure.
More efficient investment by discouraging the duplication of natural monopoly infrastructure.	Potentially substantial administrative and compliance costs. Costs imposed by opportunistic legal action designed to increase the costs of a competitor.

Sources: Ordover & Saloner 1989; Productivity Commission 2013.

The code is intended as a ‘light touch’ access-based regulation that gives precedence to competitive forces and commercial negotiation in determining the terms and conditions of access. This regulatory approach reflects the nature of the terminal assets, which, although essential infrastructure in the export supply chain, do not have strong natural monopoly characteristics.

The interim report found the code was contributing to workable outcomes for port terminal service provider (PTSPs) and exporters. However, it did not determine a clear effect of the code on the level of investment in port terminal facilities or on competition in the markets for up-country grain acquisition, transport and handling, or export services. It requested additional evidence and case studies or examples of actual benefits or losses attributable to the operation of the code or its failure.

4.1 Efficiency of port terminal operations

The interim report found the code is providing a better targeted form of regulation than the former mandatory access test. It also found the two-tiered structure of the code was operating effectively, reducing regulatory burden and providing operators with increased flexibility at port terminals where incentives for desirable behaviour were sufficient.

4.1.1 Regulatory costs

The interim report noted the costs of complying with the code are less than those of complying with the former mandatory access undertakings required by the *Wheat Export Marketing Act 2008*. The regulatory impact statement (RIS) prepared prior to the code's introduction estimated these costs for exempt port operators at \$20,000 per year and for non-exempt operators at \$360,000 per year. To date, two of the 11 port terminal operators in Australia have not been exempted from the full code (Table 3.1). The direct costs of complying with the former mandatory undertaking arrangements were estimated at between \$500,000 and \$700,000 per operator per year (Department of Agriculture 2014).

The indirect costs created by the former shipping capacity auction systems introduced under the former access regime, which continued until 2016 under the code, were significant (Box 4.1). In consultation undertaken for the review, exporters estimated the indirect costs the export industry had incurred from the former auction systems to be in the order of hundreds of millions to a billion dollars. At the broader whole-of-economy level, these costs to traders would have been partially offset through higher grain prices received by grain farmers (Productivity Commission 2010; ACCC 2015). However, in the long run this situation would not have been sustainable.

4.1.2 Long-term agreements

One of the major improvements reported by stakeholders since the code started has been the introduction of long-term agreements (LTAs) to allocate shipping capacity, replacing the former auction systems. The interim report noted the code was not the cause of shift from the auction systems to LTAs, as LTAs were already available before the code commenced. However, in their submissions CBH Group and Viterria expressed concerns about delays in their ability to adopt LTAs prior to the code's introduction. CBH Group submitted:

CBH also notes and agrees with the Department's view that, in theory, LTAs have always been available as a mechanism to allocate port capacity. However, in practice, before the Wheat Port Code came into effect and CBH was granted an exemption, between 2009 and 2014 CBH was not permitted to offer LTAs to its customers under the compulsory undertakings that it was required to lodge. The reality of trying to implement changes to port capacity allocation that required regulatory approval was costly, inflexible and frustrating. (Submission 2.3, CBH Group)

CBH Group also reflected on the additional business certainty LTAs had provided it and the consequential effects this had on its investment in infrastructure:

To reiterate, the exemption under the Code allowed CBH to implement the LTAs which gave clear signals by commercial customers of their long term needs which gave CBH added certainty to be able to invest in its port terminals and upgrade its up-country storage and handling network.

By way of example, the commercial certainty and efficiencies arising out of enhanced port operations brought about by CBH's exemption have contributed to CBH's plans for a \$750 million investment in its grain supply chain, allowing CBH to provide increased export capacity and better service to growers—both providing real benefits for WA growers and exporters. (Submission 2.3, CBH Group)

Box 4.1 Auction systems to allocate shipping capacity

In 2009 CBH Group developed an auction system to allocate port capacity in response to congestion at Western Australian grain ports (CBH 2010). CBH Group's auction system was unique in the world when it was introduced. Subsequently, the Australian Competition and Consumer Commission (ACCC) required Viterra introduce an auction system to allocate capacity at its port terminals, and the system was introduced at its South Australian terminals in 2012 (Viterra 2015a). The auction systems were approved by the ACCC as part of the mandatory access undertakings provided by PTSPs under the former *Wheat Export Marketing Act 2008* (WEMA). Capacity auction systems approved under the former WEMA transitioned to be under the code when it was introduced.

Broadly, under the auction systems exporters bid for shipping slots before the export period started, with premiums paid into a pool and rebated to exporters following the execution of the export shipments. Although considered theoretically sound as a device for rationing shipping slots (Productivity Commission 2010), the design of the auction systems was complicated and problematic. In an attempt to secure market share, exporters bid up the price for shipping slots to commercially unviable levels. As a result, the auctions systems created significant unintended outcomes, including:

- tying up capital in the auction rebate pool (up to \$300 million) for periods of more than a year, increasing costs and risks for grain exporters (Viterra 2015a)
- creating an incentive for exporters to bid up prices for wheat to fill booked shipping slots or forego the premium paid to acquire the shipping. In Western Australia, for example, if an exporter paid a \$20 a tonne premium for a slot, they were prepared to bid up the price for wheat by up to \$20 a tonne to fill the last portion of the ship. Otherwise, they lost the premium paid across the whole shipment volume, which would be \$800,000 on a 40,000-tonne shipment (Stretch, Carter & Kingwell 2014)
- operational inefficiency as exporters sought to maximise the rebate of their auction payments by spreading ship loading across several booked slots (Viterra 2015a)
- creating an incentive for exporters to invest in alternative wheat port terminals to avoid participating in the auction system for capacity at Viterra and CBH Group's ports (Viterra 2015a)
- foregone export sales and low pricing by export customers (Viterra 2015a; ADM 2015)
- causing exporters to leave the market due to price distortions and excessive risk (ADM 2015).

As an indication of the magnitude of the incentives created by the auction systems, total auction premiums paid under the auctions systems totalled \$981 million (South Australia, \$186 million: ACCC 2015; Western Australia, \$795 million: CBH 2014; Thompson 2014).

In response to growing evidence of the unintended consequences of the auction systems, CBH Group and Viterra sought approval from the ACCC to change to an alternative method of allocating capacity. CBH Group changed to an alternative long-term allocation system in 2015, following its exemption from parts 3 to 6 of the code, which meant it no longer required ACCC approval to vary its capacity allocation system. Viterra changed to a long-term allocation system in 2016, following the ACCC's approval in December 2015.

Viterra's submission also reflected on the positive effects on investment certainty that LTAs had provided it:

Long term regulatory certainty and the flexibility to operate commercially encourages innovation and investment. From 2016 to date, Viterra has made capital expenditure investments in port terminal services and upcountry services of over [commercial-in-confidence]. These investments included new bunkers, bunker upgrades, new driveover-hoppers and stackers, belt upgrades, conveyor and elevator belt investments, safety improvements, new weighbridges, bulk loading plant investments and major electrical, fumigation and IT system upgrades.

Viterra was able to confidently make these investments after the introduction of long term agreements, as it had greater certainty of ongoing demand. (Submission 2.9, Viterra)

However, it must be noted that LTAs may create hidden costs for the industry, including creating barriers to new entrants. In theory, annual auction systems deliver better competition effects than LTAs, as LTAs tie up customers to service providers for a period of time. This means that potential new entrants would be denied access to these customers for this period, possibly decreasingly the likelihood of them successfully entering the market. Countervailing this benefit, in practice, the auction systems deterred exporters from participating in the market.

4.1.3 Investment in supply chain assets

There has been significant investment by industry in export supply chain infrastructure since deregulation of wheat export marketing. This can include assets such as on-farm storage, off-farm storage and related handling equipment, trucking and rail transport, and port and related infrastructure.

A decision to invest in supply chain infrastructure, at port or up-country, depends on the business strategy and objectives and the anticipated benefits the investment will bring. Government regulation is only one of many factors that may influence a business investment decision and may be less influential than commercial considerations.

GTA said in its submission:

Evidence since deregulation shows that:

- there has been substantial investment in new port infrastructure and capacity to provide greater flexibility and competition
- there has been substantial investment in up-country pathways focused on reducing total supply chain costs. This is delivering increased competition and flow on benefits for supply chain participants and growers
- a number of new supply-chains and export pathways have developed
- exports have expanded, and the industry has been able to react to global competitive threats and changing demand patterns. (Submission 2.10, Grain Trade Australia)

It is challenging to determine the role that access regulation may have played in facilitating these investments.

There is no evidence the port code has deterred investment in port facilities. Industry has made significant investments in both new port terminals and expanding the capacity of existing terminals under the code and the mandatory access test arrangements that preceded it (Chapter 2). The two-tiered structure of the code should ensure that investment in new port terminals is not discouraged by regulatory burden if it can be reasonably expected they will be exempted from parts 3 to 6 of the code. Given the geographic distribution of port terminals in Australia, it is difficult to foresee a new terminal not being subject to inter- or intra-port terminal competition from an existing terminal. To date, the ACCC has approved exemptions from parts 3 to 6 of the code for all port terminals operated by new entrants to the market.

The code's possible chilling effect on investment in port terminal capacity is likely to be most acute with regard to Viterra in South Australia. Viterra has continued to invest in its infrastructure since the code commenced; however, it is unclear whether the level of this investment has been affected by the presence of the code.

Assurance of port terminal access may stimulate investment in up-country transport and grain storage assets that depend on downstream port terminal services; and development of innovative, lower cost supply chains. As noted in Chapter 2, alternative supply chain models are emerging in the export grain supply chain. In general, many of these alternative supply chains, which draw upon new 'independent' grain storage facilities, on-farm grain storage and independent transport options, are developing to service the newer port terminals.

As noted in CBH Group's submission, two incentives for an exporter to buy or build supply chain assets are high supply chain fees and denial of access (Submission 1.6, CBH Group). The majority of port terminals and up-country grain storage infrastructure in Australia are operated on an open-access basis. This reduces the benefits to be gained by exporters establishing competing infrastructure either at port or up-country. In consultation for this review, exporters reliant on third-party port terminal services reflected varying degrees of willingness to invest in supply chain infrastructure. Some, whose business models were based around the use of third-party infrastructure, expressed no willingness to make such investments. Others were actively investing but commented on the need to employ staff able to manage the up-country logistics.

4.2 Effect of the code on competition

In its most recent analysis of grain supply chain costs, the Australian Export Grains Innovation Centre (AEGIC) found charges for grain transport from up-country receival to port have decreased on average by about 8 per cent in nominal terms over the past five years or 12 per cent to 13 per cent in real terms. However, offsetting this is the need for most growers to travel further from their farms to deliver grain to fewer receival sites (White, Kingwell & Carter 2018).

AEGIC also found fees for port services over the past five years have remained flat or increased slightly in nominal terms, and overall the real price of these services has decreased slightly or remained flat. However, the structure of port service fees varies considerably between bulk handlers and between years, so simple pricing trends are difficult to estimate (AEGIC forthcoming).

4.2.1 Participation in the upstream wheat market

The interim report observed in request for information 4:

... evidence provided to date suggests there is no clear effect of the code on ... competition in the markets for up-country grain acquisition, transport and handling, or export services. (Department of Agriculture and Water Resources 2018)

The request did not elicit much response, although grain grower representative bodies considered the code had played an important role in fostering competition among wheat exporters for the up-country acquisition of grain.

Grain Producers Australia said:

Having all exporters be able to negotiate port access on a fair and transparent basis, reinforced by the Code allows smaller players to compete for export opportunities and therefore offer competitive prices up country. (Submission 1.8, Grain Producers Australia)

GrainCorp reflected on the level of competition in the east coast wheat market:

The market for the export of wheat and other grains from eastern Australia is highly competitive. Exports are subject to a high level of competition from the domestic market, which generally has first call on the grain. Average grain production in eastern Australia is approximately 18 million tonnes, with domestic consumption accounting for half of production (9–10 million tonnes per annum). After satisfaction of domestic demand, the remaining 'exportable surplus' (averaging 9–10 million tonnes per annum) is also subject to a high level of competition among bulk export terminals and a large number of container packers. (Submission 1.2, GrainCorp)

In its submission, CBH Group, which is not subject to the higher level of regulation under the code, emphasised the number of exporters that had access to its network and the consequential benefits for grain growers:

In May 2015, CBH contracted 10.2 million tonnes of port capacity per annum to 10 export customers (out of 13 grain marketers and traders seeking to utilise the CBH network) under an LTA (5-year term). This surety of volume provides the basis from which export customers can provide stronger pricing signals to grain growers. (Submission 1.6, CBH Group)

GTA did not ascribe cause to the code when it noted:

Evidence since deregulation shows that ... [t]here has been substantial investment in up-country pathways focused on reducing total supply chain costs. This is delivering increased competition and flow on benefits for supply chain participants and growers. (Submission 2.10 Grain Trade Australia)

This consideration of the effects of the code on the upstream wheat market is retrospective and differs from discussion in Chapter 7 on the ACCC's proposal to extend the code to apply baseline regulatory access arrangements to integrated up-country storage and handling networks.

Looking back to the introduction of the code in 2014, the question is whether there is evidence of changes in factors such as upstream investment, competition or practices as a consequence of the code.

Competition between traders for wheat at up-country sites helps to ensure that farmers receive a fair and reasonable share of the prevailing price for wheat at that location. This competition can come from traders seeking to acquire grain for the domestic or export markets, bulk or containerised export trades or traders seeking to accumulate grain to sell on to other traders. The code appears to be contributing to this competition by providing exporters with assurance they can enter the up-country wheat accumulation market knowing they can gain fair access—in particular, to non-exempt port terminals that are subject to the full operation of the code.

The businesses participating in the export wheat trade have been relatively stable in the period since export marketing deregulation. In 2008–09, immediately after abolition of the single desk, 17 businesses exported wheat from Australia. In 2016–17, 20 wheat exporting business were active in the Australian market (Wheat Exports Australia 2010). Market share between exporters has also remained relatively stable. In 2008–09 the top three exporters accounted for 60 per cent of bulk wheat exports and the top eight for 90 per cent. In 2016–17 the top three accounted for 50 per cent of bulk exports and the top eight for 83 per cent (Submission 2.1, ACCC; Wheat Exports Australia 2010).

A smaller number of businesses participate in the export marketing of other grain commodities. In 2016–17, seven business participated in the export marketing of bulk chickpea (three in 2013–14) and canola (six in 2013–14) and 14 in the export marketing of barley (13 in 2013–14).

The interim report presented trends in exporter share of grain exports through individual port terminals drawing on the ACCC's *Bulk wheat ports monitoring report 2016–17*. As a general statement, market share data since 2011–12 reveal the trading arm of the terminal operator tends to account for the largest share of exports conducted through a port terminal. Although some terminals operate on a sole-user or near sole-user basis, market shares at those terminals that operate on an open-access basis are typically spread across five or more exporters, with the PTSP's trading arm accounting for around 50 per cent of exports. Since 2011–12, there has been no trend toward an increase in the market share of the PTSP's trading arm at its open-access terminals.

Farmers have a range of options and strategies available to them to ensure they get the best available returns from their grain sales. Online selling tools, such as Clear Grain Exchange and the grain storage providers' stock management systems, provide a transparent, widely accessible mechanism for price discovery and sale. In addition to cash sales, farmers are using a wide range of financial and marketing instruments, such as pools and other contracting arrangements, which offer financial returns based on the prevailing international price. A range of businesses offer grain marketing advice services to farmers on a fee-for-service basis. The review heard that some farmers monitor or use stem reports, which are required by the code, as part of their interrogation of information and marketing decisions.

4.2.2 International wheat market

At its most basic, the code requires all PTSPs to deal with exporters in good faith (clause 6). And requires non-exempt PTSPs to 'not engage in conduct for the purpose of preventing or hindering an exporter's access to port terminal services' and 'not discriminate in favour of itself, or an

exporter of which it is an associated entity' (clause 10). These requirements may better enable third-party exporters to participate in the international marketing of Australian wheat. However, the review received no direct comment during consultations or in submissions on the effect of the code on downstream competition. GTA noted:

Today the industry is a market-oriented internationally competitive sector, with an international reputation for safe and quality grain; reliable supply and multiple players competing to buy and sell grain to supply to domestic and export grain processors. Values for Australian grain are transparent and set through the combination of international market conditions and domestic/regional grain supply and demand factors. (Submission 2.10, Grain Trade Australia)

Around half the exporters of Australian wheat are international companies or have ownership structures that involve international companies (Chapter 2). Most of these businesses would have access to wheat from other production regions across the globe. A code that imposes costs that are not justifiable will create a drag on and reduce the competitiveness of Australian exports internationally.

Australian wheat prices are a function of global wheat prices, the Australian-US dollar exchange rate, and factors affecting local supply and demand such as crop quality and the domestic market (that is, local basis: CiE 2012). Variations in local basis occur when seasonal variation in production and demand lead prices to vary from the prevailing international market price. This is particularly evident during time of reduced supply in east coast states, where domestic demand is concentrated. For instance, Newcastle port wheat prices fell to be lower than international indicator prices following the harvest of the record-breaking 2016 winter crop (point A, Figure 4.1). They then rose to exceed international prices as supply fell, domestic demand remained high and drought reduced future crop prospects (point B, Figure 4.1). They returned to high levels following the harvest of the drought affected 2017 winter crop (point C, Figure 4.1).

Deviations in local basis aside, the prices for wheat, canola and feed barley for the sites in Figure 4.1 reasonably reflect prevailing international market prices.

The code does not directly affect the level of competition in the downstream international wheat market or affect international wheat prices. Exporters competing to trade Australian wheat are essentially price-takers in this market. The international price consequently caps the price exporters are willing and able to pay for Australian wheat. This sets a limit on any benefits the code might have on domestic grain prices.

Figure 4.1 Selected domestic port zone export prices and international indicator prices for wheat, feed barley and canola, 2014 to 2018



Source: IGC 2018; prices quoted are free on board (priced at the point of shipment) based on a variety of official and non-official sources and do not reflect a particular trade.

5 Stakeholder proposed amendments

The Australian Competition and Consumer Commission (ACCC) has monitored and enforced compliance with the code since it came into force in 2014. On the back of this experience, the ACCC suggested certain refinements to the code that could be given effect as amendments to the regulation.

5.1 Definitions

The export wheat sector's traditional bulk handling model from paddock to port is being challenged by innovations and investment in new logistics and handling systems—for example, new on-farm storage, mobile bulk loading systems, and port terminal business models. Consequently, it is appropriate to consider whether definitions in the code (clause 3) remain appropriate and support the code's objectives. These terms include 'port terminal facility', 'port terminal service' and 'port terminal service provider'.

Mobile bulk loading systems can be moved between berths or even between ports. For example, the system used by Riordan Grain Services at the Port of Geelong, which was granted an exemption by the ACCC, has been transported and used to load grain at Portland.

WA Plantation Resources' (WAPRES') core business is in the wood fibre industry as a producer and exporter of woodchips. In contrast to most other port terminal service providers (PTSPs), it is not an originator, accumulator or trader/exporter of bulk wheat (WAPRES 2015). However, its ship loader is capable of handling bulk wheat. Bunge has an agreement with WAPRES that underpins its grains business and related capital investments in south-west Western Australia and has invested in its own grain storage facilities on land leased from Bunbury Port Authority adjacent to the WAPRES facility (WAPRES 2018). Similarly, LINX's berth 29 Port Adelaide facility has an arrangement with Cargill, which has been the sole exporter of grain through this terminal.

The WAPRES/Bunge and LINX/Cargill arrangements raise questions as to which party should reasonably be expected to be bound by the code—or to what extent—and to have the information to meet any publication, reporting or other requirements.

Further, where ports use mobile bulk loading systems, are not dedicated grain export operations or are mothballed for any reason, the code may be capturing and imposing regulatory burden on port terminal facilities—and the associated service provider—that are 'capable of' but not intending to handle bulk wheat at a particular time.

Recommendation 2

That the code be amended to require parties that jointly provide port terminal services to nominate which party is responsible for fulfilling relevant code obligations and to clarify related matters of process and responsibility.

That the definitions of 'port terminal facility' and 'port terminal service provider' be amended to clarify the facilities that fall within the scope of the code, and are subject to regulation, at a particular time—for example, by removing reference to capability and clarifying when a facility would be considered 'used or to be used'.

5.2 Penalty provisions

The Treasury's Industry Codes of Conduct Policy Framework notes that prescribed industry codes are enforceable by the ACCC or by private action under the *Competition and Consumer Act 2010* (CCA), with a wide range of remedies available, including injunctions, damages, non-punitive orders and other compensatory orders (The Treasury 2017). The ACCC can also accept administrative undertakings that are on the public record, where companies generally agree to remedy the harm caused by the conduct; accept responsibility for their actions; and establish or review and improve their trade practices compliance programs and culture.

However, the Treasury also notes that not all industry codes need penalties in order to be effective, and policymakers should consider whether non-punitive remedies are sufficient in encouraging compliance. They should also keep in mind that the general prohibitions of the CCA, such as in relation to unconscionable or misleading conduct, continue to apply, making significant penalties already available to deal with serious misconduct.

When the code was developed, pecuniary penalties were not available in relation to mandatory codes under the CCA. The ACCC put the position that, for a code to be effective, the consequences of breaching it must be sufficiently serious to incentivise compliance (Submission 2.1, ACCC). The ACCC also noted that, where penalties for noncompliance are too low, PTSPs may factor in the risk of a penalty as a cost of doing business (Submission 1.1, ACCC; Submission 2.1, ACCC).

In submissions responding to the ACCC's proposal, stakeholders were generally keen to ensure that any penalty would be proportionate with the breach. For instance, CBH Group submitted:

... penalties need to be reflective of the breach and the expected obligations and standards must be clear (Submission 2.3, CBH Group).

Viterra submitted there was no need to introduce pecuniary penalties into the code and the ACCC has other means available to it for pursuing potentially problematic conduct exhibited by industry players that may have market power, including under section 46 of the CCA (Submission 2.9, Viterra).

While the review recognises the availability of other means, appropriately scaled pecuniary penalties should be applied where the code requires a PTSP to take a specific action within a specific period.

Recommendation 3

That appropriate remedies, including civil pecuniary penalties and thereby infringement notices, be considered for serious and egregious breaches to encourage PTSPs to take specific actions within a specific period required by the code, including in relation to:

- Part 2: publication obligations, including continuous disclosure rules
- Part 3: non-discrimination, no hindering and dispute resolution provisions
- Part 4: certain aspects of the capacity allocation and protocol obligations
- Part 5: publication obligations, including regarding capacity and performance indicators
- Part 6: record-keeping obligations.

5.3 Stem reporting

The code requires all PTSPs to publish and make available port loading statements (clause 7), which are more commonly known in the industry as shipping stem reports. The current code details in items (a) to (k) of clause 7 the information that must be included in these statements. The statements must be made available to the public on the PTSP's website and provided to the ACCC each business day.

Section 5(4)(h) of the regulation required the review to consider 'the ongoing appropriateness of all port service providers making available a port loading statement each business day under clause 7 of the code'.

The interim report sought comment from stakeholders on the possible standard format (or minimum content) and appropriate reporting horizon for port loading statements.

Growers, exporters and other businesses providing information services to the sector generally value stem reports as an indicator of upcoming bulk grain exports. This is particularly important in regions where bulk export is the only effective pathway to market. During consultations, some stakeholders suggested that when changes are made close to the shipping time—for example, a change to the commodity that is to be shipped—there could be some 'gaming' of the system taking place to protect commercial information. That said, flexibility is needed to accommodate changing market conditions or shipping logistics arrangements. This includes the ability to reallocate shipping slots; change commodities, cargo volumes or vessels; or move loading ports. Stem reports are therefore only indicative of shipping intent, especially for periods later than a month from the date of publication.

PTSPs indicated stem reporting is considered standard industry practice that would, by implication, continue whether or not it is required under the code. It was noted that practical factors relating to shipping can impact on reporting time frames and the availability of information.

The interim report sought comment on port loading statements (request for information 5), but this received little attention in submissions. CBH Group commented:

Any introduced minimum forward reporting requirements should not impede industry practice and should not inhibit flexibility such that Australian grain exports are further disadvantaged. (Submission 2.3, CBH Group)

Grain Growers Ltd nominated 11 information items it considered should be included on a standard shipping stem reporting template (Submission 1.12, GrainGrowers Limited). Of these, seven are already required to be included on the current port loading statement under clause 7(2). The additional items proposed were grade of grain, destination of ship, estimated time of arrival (ETA) at destination and volume of cargo being unloaded at destination.

In contrast, Viterra argued against each of these additional items being included. Reasons centred on information not being known by the PTSP or being considered commercially sensitive by the exporter (Submission 2.9, Viterra).

Additional information may be of interest to stakeholders—for example, monitoring in close-to-real time where Australian grain is going. Ship movements are discoverable by interested

parties; however, the additional information sought by Grain Growers Ltd is considered commercial by some exporters. It is arguable that the code is the appropriate mechanism for government to require the public dissemination of such information.

Not all information required to be published on a shipping stem report will become available at the same time. The sequence of activities leading to export of a consignment can include capacity allocation, acceptance of an export nomination or booking, agreement of an accumulation or site assembly plan, and vessel nomination. Requirements for these various activities, including the information that must be provided at any point, will be set out in documents such as the port terminal service agreement, port terminal rules, port terminal service protocols, port loading protocols or similar. The purpose of these processes and documents is to expedite the provision of services and progress the export of grain, and the time frames have been determined by industry.

For example, a PTSP may allocate capacity to an exporter at a given port for a particular shipping window—typically the first or second half of a calendar month—via a long-term agreement (>1 year before shipping); a unique slot reference number will be assigned when the exporter's booking is accepted (variable timing); the PTSP will be advised of the grain commodity (>21 days before the slot opens); and the vessel will be nominated (>10 days before ETA).

As discussed below, the ACCC has proposed the introduction of retrospective port loading statements, which will be used in the monitoring and enforcement of the code. The prospective shipping stem reports may still be used for these purposes; however, for industry stakeholders their primary purpose will be to provide public information.

Current prospective 'port loading statements' typically have a forward horizon of one to three months. Information beyond this period often relates to non-grain port utilisation. PTSPs may choose to publish shipping stem information with extended lead-in times, for commercial or other reasons. This should be encouraged as a beneficial industry practice, recognising information may change as the execution date approaches. For example, capacity allocation for an intended wheat shipment may change to a mixed wheat and barley shipment, and an exporter's request to change the load port or elevation period may be accepted in accordance with a PTSP's protocols.

Grain Growers Ltd also suggested a standard reporting format be adopted for port loading statements, as there are modest differences in shipping stem reports among PTSPs. The interim report considered this was a sensible proposal. In responses to the interim report, PTSPs noted a standard reporting format was possible but expressed concern about the possible costs associated with changing their current formats. For example, Viterra submitted:

Viterra considers that a consistent format should be achievable but will require consultation among port terminal service providers. The format would also need to comply with the ACCC's Information document about format and business rules for loading statements provided to the ACCC (September 2015). (Submission 2.9, Viterra)

Along similar lines GrainCorp stated:

We worked closely with the ACCC to develop our reporting when the Code was introduced and believe our reporting is aligned with expectations. We remain open to discussing opportunities to improve or streamline reporting. (Submission 2.4, GrainCorp)

The review notes that the differences in the format of shipping stem reports are modest and do not impede their usefulness as a tool for industry. Some minor manipulation may be required by those businesses that compile such reports into fee-for-service products, but this does not justify the cost of regulated businesses moving to one strict reporting format.

The review has considered current export practices and the expectations and likely use of the published information by stakeholders from paddock to port. The review has sought to balance these considerations with matters such as the accuracy of information available to a PTSP and the need for government to mandate a reporting horizon for the benefit of stakeholders across the export grain supply chain. It is evident that prospective stem reporting is essentially a standard practice but that, in the absence of an agreed industry standard, the code can reflect expectations and establish requirements for this reporting.

Recommendation 4

That PTSPs continue to publish prospective daily shipping stem reports on their websites (currently referred to as port loading statements), including the information required in clause 7(2).

That the code be amended to require that all accepted bookings be reported no later than three* months before the slot opens—whether or not all clause 7(2) information is known to the PTSP—or within two* working days of a booking being accepted within this period.

That clause 7(2) information provided to and accepted by a PTSP in accordance with its agreement(s) with an exporter/customer be included on the shipping stem report within two* working days.

* Further industry consultation may be needed to confirm the appropriateness of the suggested periods.

The ACCC primarily uses stem reporting to monitor the delivery of ship loading services and to enable review of exemptions from parts 3 to 6 of the code. In this context, the ACCC indicated that less frequent, retrospective reports showing executed bookings could replace the current requirement. It suggested monthly retrospective reports be provided by PTSPs in .csv files. To avoid confusion, these could be referred to as port loading statements and the forward-facing reports could be referred to as shipping stem reports.

CBH Group expressed concern that:

reporting requirements over and above the provision of the shipping stem information should consider the cost to align the PTSP's IT system with the regulator's requirement. (Submission 2.3, CBH Group)

Recommendation 5

That PTSPs be required to provide the ACCC with retrospective port loading statements setting out the bookings for each calendar month (whether executed or not) within one month of the conclusion of the calendar month and in the form and manner required by the ACCC.

That the port loading statement include:

- information from the most recent shipping stem report that included the booking
- if a port terminal service was provided, the quantity and type of grain loaded and time the ship departed
- if a port terminal service was not provided, the reason why.

That, subject to consultation with PTSPs about practical reporting considerations, monthly port loading statements be provided to the ACCC in .csv files, similar to current practice.

5.4 Part 5 publishing requirements

The ACCC noted PTSPs have been interpreting reporting requirements in part 5 of the code—relating to available capacity and performance indicators—differently and suggested the intent of these obligations should be clarified to facilitate enforcement.

The publication of available capacity and performance indicators should enable the regulator to monitor shipping patterns. In turn, this information should help the regulator to determine whether PTSPs are meeting their obligations under the code.

These publishing requirements on non-exempt PTSPs are additional to the forward-looking stem reports and (proposed) retrospective port loading statements required of all PTSPs.

5.4.1 Expected capacity

The publication of expected terminal capacity provides transparency about the ship loading capacity of each facility owned or operated by a non-exempt PTSP. The information might be relevant in reconciling and monitoring grain shipments, and the ACCC has indicated this transparency is important for enforcement.

Clause 28 requires a PTSP to publish, by 1 August each year, the total capacity that it reasonably expects will be available at each of its ports for the 12-month period beginning 1 October. The PTSP must subsequently publish a weekly update on the capacity available to be acquired for the export of grain for each shipping window in relation to the port.

In practice, a port's capacity for a given shipping window can depend upon a range of factors and is not necessarily related simply to, for example, the capacity of the elevator on the berth. Notes appended to available capacity tables published on the Viterra website include, for example, that whether capacity (or more or less capacity) can be supplied will depend on a range of factors, including supply chain constraints, the performance of prior shipments, weather and various other matters outside Viterra Operation's control. Also, tonnages available assume an even spread of ETAs and minimal disruptions due to weather and other supply chain or port constraints.

Some stakeholders commented during consultations, for example, on the tendency for near-term capacity to be released only to be taken up by the port terminal's related trading arm.

Clarification of reporting obligations should improve transparency to the regulator and industry as to the availability, allocation and use of capacity.

The ACCC noted it is unclear whether, when reporting available capacity, a PTSPs must report:

- 1) the port terminal's total capacity, including capacity already allocated, or
- 2) the capacity that remains available, excluding allocations—for example, as a result of long-term agreements.

Therefore, it is not clear how weekly updates should deal with matters such as additional bookings, moved or cancelled bookings, and release of additional capacity.

Recommendation 6

That the code be amended to clarify:

- that the total baseline capacity (including allocated capacity) of a facility that is reasonably expected to be available should be reported by shipping window for the shipping year
- that changes in available capacity—both increases and decreases—and the reasons for these (including allocation of capacity) should be clearly reported in weekly updates
- that the holder/s of capacity and the capacity they hold be reported (allocated capacity).

5.4.2 Performance indicators

Clause 29 requires non-exempt PTSPs to publish on their websites information on performance indicators for the previous calendar month (performance reporting). This information is used by the ACCC for monitoring and enforcement and also provides insight for other industry stakeholders.

The ACCC expressed concern in relation to performance reporting about inconsistent interpretation and reporting of 'allocated amount' of capacity and about the time at which capacity is considered to have been allocated for the purpose of performance reporting. The ACCC suggested that the allocated amount be the allocated capacity published under clause 28 one month before the relevant month. PTSPs typically identify shipping windows as the first or second half of a calendar month, and capacity updates for each shipping window are required weekly. It should therefore be possible to apply the one-month lead time not just to the start of the relevant month but also to the start of the shipping window in which a shipping slot occurs or starts. This would be the capacity reported in the weekly update released, for example, between 26 March and 1 April for a shipping window opening 1 May; or 10 and 16 April for a shipping window opening 16 May.

Recommendation 7

That the 'allocated amount' reported under clause 29(1)(a) be the 'allocated capacity' [for each capacity holder] on the date one month before the shipping window opened.

The ACCC noted information concerning demurrage is shared via contractual arrangement and suggested the requirement at clause 29(1)(e) to publish related information should be removed (Submission 1.1, ACCC). This was supported by stakeholders during consultations.

... this is a sensible removal as PTSPs do not hold this information in relation to vessels loading at their facilities. (Submission 2.3, CBH Group)

Recommendation 8

That any requirement for PTSPs to report demurrage information be removed (clause 29(1)(e)).

5.4.3 Stocks reporting

Clause 30 requires non-exempt PTSPs to publish weekly information on the total amount of bulk wheat, barley, canola and other grains held at each port terminal at the end of the previous week.

The interim report summarised the work on national grains stocks reporting since 2008. It found there was no clear justification for extending the code to require enhanced grain stocks reporting. Submissions on the interim report did not provide any additional evidence in support of a regulated national grain stocks reporting scheme.

Stocks reporting is a current issue for the bulk grain export sector from paddock to port. However` consultations made clear that the fragment of information provided by this reporting requirement in the code has little, if any, relevance on its own. Industry is proceeding separately with discussions on how a grain stocks reporting system might operate across Australia.

Recommendation 9

That clause 30 requiring port terminal service providers to publish stocks information be deleted.

5.5 Capacity allocation system approvals

A non-exempt PTSP must have a port loading protocol that sets out the policies and procedures for managing demand for services for each port terminal it owns or operates (clause 24). This protocol must include the facility's capacity allocation system (clause 25). A capacity allocation system must be approved by the ACCC if it is used to allocate capacity more than six months in advance.

The code sets out the matters the ACCC must give regard to when approving an allocation system, and in October 2014 the ACCC issued guidelines on its approval process. The ACCC approved Viterra's application seeking capacity allocation system approval in December 2015. GrainCorp's capacity allocation system has rolled forward from the previous access undertaking regime and has not been considered by the ACCC under the code.

A PTSP can propose a variation to an approved capacity allocation system for approval by the ACCC. However, once the ACCC has approved a capacity allocation system there is no provision for it to review the approval and there is no expiry date. The ACCC has noted this is in contrast to exemption determinations that can be revoked if the reasons for the exemption no longer apply (Submission 1.1, ACCC).

The ACCC proposed the effectiveness and appropriateness of a capacity allocation system should be reviewable, and it should be able to require or to initiate changes to a system in certain limited circumstances. Following a review, the ACCC would then be able to require amendments to address concerns with the system or to revoke approval of the system. The ACCC expressed the view this would provide some discipline on a PTSP's conduct in relation to its capacity allocation system and provide the ACCC with an opportunity to respond to changing market conditions (Submission 1.1, ACCC).

The ACCC subsequently proposed that the process to revoke a capacity allocation system approval could be modelled on the process for revoking an exemption determination (Submission 2.1, ACCC). Guidelines on the ACCC's process for revoking exemption determinations were published in October 2014.

Capacity allocation systems underpin non-exempt PTSPs offering long-term agreements (LTAs), which provide certainty to exporters and are seen as a tremendous improvement on the former auction system. Under existing capacity allocation systems GrainCorp reserves at least 40 per cent of elevation capacity at each port terminal for supply to all customers under short-term agreements (GrainCorp 2017a). Viterra makes at least 500,000 tonnes of short-term capacity available, spread across all port terminals, in each quarter for booking on a first-in-first-served basis. Viterra's capacity allocation system caps the amount of long-term capacity any exporter can hold to 40 per cent at the Port Adelaide Outer Harbor and Port Lincoln Port Terminals in the six-month period commencing 1 January and ending 30 June; and 50 per cent in all other cases (Viterra 2015b).

If the ACCC were to revoke a capacity allocation system or not be able to negotiate a system agreeable to both it and a non-exempt PTSP, the PTSP could in theory operate by providing only short term agreements; however, this could disadvantage customers and have a serious negative effect on the PTSP's business. The status of LTAs already entered into would need to be clarified in this situation.

Viterra provided extensive discussion opposing the idea that capacity allocation systems should be reviewable, noting amongst other things:

It would be a highly unusual step to provide a regulator with power to review its own earlier decision ... (Submission 2.9, Viterra)

It also submitted that:

This regulatory uncertainty would materially undermine port terminal operators' incentives to innovate and invest in their facilities, and would also undermine customer's (sic) long term plans. (Submission 2.9, Viterra)

The ACCC process for revoking an exemption determination (on which the process to review a capacity allocation system could be based) includes:

- ACCC decides to review
- ACCC notifies the PTSP that it has commenced a review and may invite the PTSP and other interested parties to provide information relevant to the review

- if the ACCC forms a preliminary view supporting revocation, it will generally issue a draft revocation notice
- parties are provided with an opportunity to comment on the draft revocation notice
- ACCC makes a final decision and provides the PTSP with a written revocation notice.

However, responding to a suggestion that the exemption review process be more flexible and that subsequent exemptions could be revoked if necessary, the ACCC noted:

While ... such exemptions could be subject to review, reviewing and revoking exemptions is likely to be a costly and time-consuming process and should not be viewed as a quasi-enforcement avenue for exempt parties. Implementing this [greater flexibility] proposal may result in considerable uncertainty for PTSPs exempted on this basis. (Submission 2.1, ACCC)

Concerns about cost, time and uncertainty are relevant generally to considerations on revoking decisions made previously by a regulator. A decision to review a capacity allocation system should only be taken in exceptional circumstances. Defining and codifying the ‘certain limited circumstances’ suggested by the ACCC under which it could initiate a review is not simple, and the ACCC has not attempted to do so. Also, the review did not receive any indication during its consultations that there had been a need or suggestion that a capacity allocation system be reviewed, which might have provided an insight to a potential trigger. It is foreseeable, however, that a successful enforcement action under the code that brought into question the suitability of an approved capacity allocation system could require review of that system to ensure it was fit for purpose in future.

Viterra provided an extensive case study on the introduction of LTAs in South Australia, including its observations on the negative impacts particularly owing to the delayed introduction of LTAs (Submission 2.9, Viterra). No information was received by the review to suggest there have been concerns with the capacity allocation systems approved by the ACCC under the code or that there is an expectation of future concerns.

In light of these considerations, a review of a capacity allocation system should only be warranted in exceptional circumstances. This is because the potential benefits of a review mechanism need to be weighed against the commercial risks and business uncertainty that would be created by allowing review of capacity allocation systems the ACCC has already approved. No evidence was presented that has enabled this review to define ‘exceptional circumstances’. However, this matter could be considered by government in the context of allowing an ACCC review to be initiated using a discretionary power – such as in consultation with the Minister for Agriculture.

Recommendation 10

That clause 25 (‘Port loading protocol to include capacity allocation system’) continue to operate in its current form.

That consideration be given to defining the exceptional circumstances or determining a process under which a capacity allocation system approved by the ACCC under clause 25 might be reviewed.

6 Extending the code to cover all grains

In its submission to the review, the Australian Competition and Consumer Commission (ACCC) considered the code should ensure that exporters of all bulk grains, not only wheat, have fair and transparent access to port terminal services. It put the view that this would improve the effectiveness of the code, promote competition in grain supply chains, and improve the prices offered to growers for their grain (Submission 2.1, ACCC).

The ACCC observed that the code's focus on bulk wheat is a legacy issue from deregulation of earlier wheat marketing arrangements and said the key purpose of the code is to regulate access to port terminal infrastructure with monopoly characteristics. It put the position that, where there is market failure, it applies to all users of the relevant port facilities regardless of the commodity.

The ACCC said that confining the code's protections to bulk wheat was problematic from a practical perspective. This was based on the ability of a port terminal facility to export wheat and other grains, concern that an exporter may be denied protection under the code for a non-wheat shipment, and the flexibility exporters have in confirming the type of grain to be exported via a shipping slot.

The observation was also made that non-wheat grains are increasingly being exported, that they are the main commodity shipped from some regions, and that the top three vertically integrated exporters are more dominant in these grains than in wheat.

6.1 Assessment

In considering whether the code should be expanded to cover all grains, the review was interested to observe how the bulk grain export sector has been operating since the code commenced and consequently whether there was any need for regulatory amendment. A number of stakeholders commented to the review and in submissions that the ACCC had not provided evidence of market failure to support its proposal. For instance, in its submission CBH Group stated:

In its May submission, the ACCC also called for the Wheat Port Code to be expanded from wheat to all grains. No actual evidence of market failure in the export of other grains was provided to justify the proposed expansion.

Wheat export regulation under the Code fell out of the Wheat Export Marketing Act and before that the abolition of the single desk in 2008. Every other grain commodity—barley, canola, oats and pulses—has been successfully exported from Australia for many years under no regulatory regime with no issues, highlighting the lack of evidence to support an expansion to all grains.

This unnecessary increase in regulatory burden over another 30% of Australia's grain exports would only mean further costs borne by Australian growers. (Submission 2.3, CBH Group)

The code is the most recent step in the deregulation of Australia's export wheat marketing arrangements. Beyond ensuring all bulk wheat exporters have port terminal access, the objectives of the code are to promote the operation of an efficient and profitable bulk wheat export industry and to reduce regulatory burden on port terminal service providers (PTSPs). These objectives are still relevant and potentially applicable to the export of all bulk grains.

While expanding the code to cover all grains may result in cleaner regulation, proper consideration must be given to the reasons for introducing additional regulation. The *Australian Government guide to regulation* states that regulation should be imposed only when it can be shown to offer an overall net benefit (Department of the Prime Minister and Cabinet 2014). It poses several questions to be considered when developing a regulation impact statement, including the following:

- What is the problem you are trying to solve?
- Why is government action needed?

In relation to the latter, policymakers need to ask:

- Is it a genuine priority?
- Is the problem serious enough to justify government intervention?

As a general observation, the review has found the code is functioning well and, with some suggested technical amendments, will continue to do so. No comment was received from third-party exporters or other stakeholders during consultations or in submissions to suggest consignments of non-wheat grains have had a different level of access to port terminal services than consignments of wheat or that they have been subjected to additional discrimination or hindrance.

In their submissions PTSPs said they already effectively applied the provisions in the code to all grains. For example, GrainCorp submitted:

... all grains are already effectively treated as if they were covered by the Code. This is the case because it is simpler and more efficient to have one process in place for all grains at a port.

Regardless of the grain, pulse or oilseed carried by a vessel, all vessels using GrainCorp ports are subject to the same Port Terminal Service Agreement and protocols; and all vessels are disclosed on our shipping stem in the same manner. Additional regulation to 'enforce' a change in behaviour is not required. (Submission 2.4, GrainCorp)

Aside from PTSPs, other industry stakeholders were generally supportive of the proposal. For instance, WAFarmers submitted:

The Code currently applies to wheat only; however with increasing production and prominence of other grains, including barley, canola, and chickpeas, there is no reason why all bulk export grains shouldn't be included. WAFarmers supports the move to include all bulk grains within the Code so long as CBH and Bunge continue to be exempt. (Submission 2.2, WAFarmers)

Australia's bulk grain exporters do not specialise in trading and exporting one type of grain. Similarly, PTSPs will provide port terminal services for a wide range of bulk grains, despite the code defining a port terminal facility to be a ship loader that is capable of handling bulk wheat. The result is that third-party exporters and port terminal operators develop relationships irrespective of the type of grain being exported. The practical implications of extending the code to cover all grains are therefore likely to be minimal. This does not deny, for example, the ACCC's disquiet about individual bookings coming in and out of coverage under the code but reflects on the broader justification for amending the code.

There was no indication during the review that exporters' negotiations with PTSPs on port terminal access for non-wheat grains were any different from those for wheat or that they were any more likely to believe mediation or arbitration might be necessary. Indeed, there was no indication from stakeholders that part 3 requirements are consciously or actively reflected or referred to in dealings and negotiations between exporters and non-exempt PTSPs. Again, the practical outcome of extending the code to cover non-wheat grains is unlikely to significantly influence how negotiations on port terminal access are undertaken for these commodities.

Recommendation 11

That the code be amended to extend its coverage from bulk export wheat at port to all bulk export grains at port.

7 Extending the code to include up-country infrastructure

In its submission on the issues paper the Australian Competition and Consumer Commission (ACCC) suggested the department consider extending some provisions of the code to cover up-country service providers of bulk storage for export grain (hereafter referred to as ‘up-country providers’). The interim report found there was no clear justification for extending the code to cover up-country providers. It sought supporting evidence of either deficiencies in the protections offered by general competition law or the absence of commercial or industry solutions to understand how extending the operation of the code up-country would be a suitable response.

In its subsequent submission on the interim report the ACCC reiterated its view, stating:

To address concerns regarding access to vertically integrated upcountry networks, the ACCC remains of the view that the following baseline access obligations are appropriate and should be applied:

- the good faith obligation
- the obligations not to discriminate on the terms of access or to hinder access to grain storage and handling services, and
- the obligation to refer disputes to an independent arbitrator where they cannot be resolved via commercial negotiations. (Submission 2.1, ACCC)

The ACCC recommended that these provisions apply to access to storage and handling facilities owned and operated by a port terminal service provider (PTSP) and located in the grain catchment area for that PTSP’s port terminal facility. Applying these obligations to facilities that are not part of a vertically integrated supply chain is unlikely to be beneficial. Further, given the latter two obligations are in parts 3 to 6 of the code, they would only apply in networks where the associated port terminal facility had not been granted exemption or in the future if an existing operator’s exemption was revoked.

The review had extensive discussions about the ACCC’s proposal with industry stakeholders during the second round of industry consultation meetings, and stakeholders responded to the proposal in their second round of submissions to the review.

This chapter considers the proposal to extend the wheat port code to include up-country infrastructure. It does this by examining the rationale and economic background for the proposal, considering the practical operation of grain storage networks and areas of concern that arose during consultation for the review.

The taskforce has not received any information from the ACCC regarding any investigations it may be undertaking in relation to the matters discussed in this chapter.

7.1 Rationale and economic background

As noted in [Appendix C](#), access regulation aims to address a lack of ‘effective competition’ that arises due to natural monopoly in infrastructure services. Effective competition requires that firms be subject to a reasonable degree of competitive constraint from actual or potential competitors, as opposed to theoretical—and unattainable—ideal of perfect competition (Productivity Commission 2013).

The interim report assessed the costs of constructing up-country grain storage facilities and ports. It found up-country grain storage facilities do not have strong natural monopoly characteristics. The costs of constructing a modern receival site are around one-tenth of those of constructing a modern port terminal, which themselves do not have strong natural monopoly characteristics.

However, in response, the ACCC suggested up-country grain storage facilities when considered as a network of sites, rather than as an individual site, have some natural monopoly characteristics. When considered as a network, the up-front construction costs are greater and the barriers to entry for new entrants are higher. As a result, the current owners of up-country networks may have market power gained from the previous government or farmer cooperative-imposed monopoly position. Viewed that way, up-country grain receival sites are similar to port terminals and could warrant a similar regulatory approach (Submission 2.1, ACCC).

Many of the issues regarding the operation of up-country networks are not directly related to infrastructure access, which is the current focus of the code. However, the issues may have detrimental effects on the competitive process in the port terminal services and up-country grain markets. Vertically integrated port terminal services and grain export marketing businesses may have the incentive, for example, to offer lower quality grain-handling services to rival port terminals or rival exporters (Box 7.1). This could discourage rival investment in port terminals or make rival exporters less effective competitors in the up-country grain market and/or the international grain market.

Box 7.1 Putting rivals at a disadvantage

In theory dominant, vertically integrated firms can employ a range of practices to protect or extend their market shares. These practices reduce the expected level of profit that the incumbent’s rivals can hope to earn, which reduces their rival’s innovation and investment incentives. However, the effects of these practices on net public welfare is nuanced, and distinguishing them from ‘competition on the merits’ is difficult. Some of these practices include:

- raising rivals’ costs—raising the costs of essential services or resources for downstream rivals, thereby improving the competitive position of its own downstream subsidiary
- decreasing service quality—degrading the quality of a service provided to a rival so as to confer a competitive advantage to its own downstream subsidiary
- decreasing output quality—degrading the quality of an output provided to a rival so as to confer a competitive advantage to its own downstream subsidiary.

(after Allain, Chambolle & Rey 2015; Ordover & Saloner 1989)

Analysis of issues affecting competition among grain trading businesses and the ACCC's proposal to extend some of the provisions of the port code to up-country grain storage sites is complicated. Relevant factors include:

- differentiating between outcomes that result from 'competition on its merits', including the benefits of scale and appetite for risk, which are not the basis for regulatory intervention (The Treasury 2017) and those arising from conduct intended to harm competition
- differentiating between poor service standards and the natural variability in grain quality that occurs within grain-handling networks ([Appendix D](#)), which cannot be addressed by regulation
- differentiating between poor service standards and the relatively poor state of grain transport infrastructure and the logistical restrictions this causes (AEGIC forthcoming), the ultimate solution to which is investment, not regulation
- differences in the business practices of the up-country providers and the structure of the east coast, South Australian and Western Australian grain storage markets and the dynamic nature of those markets, which invite questions about the role of national regulation
- differences in the structure of the port services and up-country grain storage services market
- differences in crop volumes, logistical capabilities and geography of east coast states, South Australia and Western Australia, which affect the services up-country providers can deliver
- strategic behaviour by grain trade businesses, including the possible use of government regulation to impede rivals
- an absence of recent statistics or reports on the structure and performance of up-country grain markets
- the possibility for unintended consequences (in line with the experience of the former shipping slot auctions, Box 4.1).

Moreover, it is unclear that the principles of 'non-hindering' and 'non-discrimination', which are commonly applied to regulated networks, such as telecommunications or electricity, can be simply applied to the access to grain from up-country networks as proposed by the ACCC. This is because a suite of factors that govern the out-turn of grain from up-country networks are outside of the operator's control ([Appendix D](#)). As a result, it would be unrealistic to expect grain storage operator to achieve these principles.

7.2 Out-turn of grain from up-country sites

GrainCorp, Glencore, CBH Group, Cargill and Emerald operate their up-country networks on a notionalised basis. Once grain has been commingled in a storage facility with grain of the same specification or grade, the client will be credited with a notional entitlement to out-turn grain from the system equivalent to the quantity and quality of wheat delivered (see [Appendix D](#) for more details). The specifics of the arrangement will be set out in the service provider's storage and handling agreement. The notional system differs, for example, from systems in which specific parcels of wheat are warehoused or a client/owner reserves a cell at a specific up-country site.

Some of these practices are historically embedded in the operation of grain-handling systems in Australia. For example, commingling of grain started with the introduction of bulk handling systems in the 1920 to 1950s (GrainCorp 2018b; Viterro 2018b; Wesfarmers 2018), and segregation of grain based on quality was introduced in the 1960s to 1970s (Flugge 1997; PIRSA 2018). Notional stocks management was subsequently introduced following the abolition of single desk domestic and export marketing arrangements).

Regarding the benefits of notional arrangements, in its submission GrainCorp advised:

Notional stocks systems [based around ownership of grain entitlements in a system, rather than actual stocks at certain sites] play a critical role in managing these various demands on commingled networks—and in ensuring grain is available for customers at the time when they need it. A notional stocks system has become particularly important in eastern Australia since the advent of multiple users of rail assets. (Submission 2.4, GrainCorp)

Notional stock systems also enable exporters to access their entitlement to grain, when the actual grain is unavailable because of insect pests ([Appendix D](#)). If this was not possible, exporters (in particular, smaller exporters that did not own large volumes of grain in the network) may find it difficult to access grain to execute their scheduled stem bookings, leading to increased logistical complexity and cost.

Although notional storage and handling systems may provide net benefits to grain traders that own grain in the system, the systems can give rise to a number of problems that may be inherent or manageable to greater or lesser degrees. These factors are discussed in the following subsections.

7.2.1 Effects of site swaps on transport costs

Site swaps can result in grain being out-turned at a site that is further away or closer to port than the site at which an interest in or entitlement to grain was originally purchased. The additional costs associated with transporting the grain the extra distance to port vary depending on the sites being compared. These cost differences are administratively reconciled. Storage and handling agreements make provision for the payment of location (or freight) differentials to make up the difference in the cost of execution between an origination site and the outload site to the nominated destination. For example, Cargill Australia's GrainFlow storage and handling contract states:

7.3 Subject to clause 7.4, where the Commodities are Out-turned from the Alternative Storage Facility, the parties must calculate the applicable freight differential as follows:

Freight Differential = (Published GTA Location Differential for Alternative Storage Facility—Published GTA Location Differential for Original Storage Facility) x \$1 x metric tonnes of Commodities Out-turned.

Where the Freight Differential is positive, GrainFlow must pay the value of the Freight Differential to the Client. Where the Freight Differential is negative, the Client must pay the value of the Freight Differential to GrainFlow. (Cargill 2017)

Viterra's storage and handling agreement states:

6.6 Right to Out-turn or move Grain at another site

(a) Subject to clause 5.8, Viterra reserves the right to Out-turn, or move or swap, the Client's Grain at a Viterra Facility other than the Viterra Facility at which the Client acquired the Grain if:

(i) Viterra reasonably considers that the quality of the Grain or the operation of the Viterra Facility may be adversely affected if the Grain remains in any particular location;

(ii) the Viterra Facility fills, or is expected to fill, during the Service Year; or

(iii) Viterra determines (in its reasonable opinion) that it is operationally efficient to move the Grain.

(b) Unless otherwise agreed between the Parties, any movements described in clause 6.6(a) will be at the expense of the Client. Viterra will use the then current freight rates published by Viterra (as varied from time to time) prior to the commencement of the Service Year in order to charge the Client for the movement.

(c) Without limiting the operation of any other clauses of this Agreement, Viterra may, at its discretion, overflow Grain from any Viterra Facility, or swap Grain to an alternative Viterra Facility provided that the Client is compensated for any freight differential. (Viterra 2017)

Summarising stakeholder views on the willingness of up-country service providers to negotiate workable location differential outcomes:

- the issue was not relevant to the CBH Group system, where most grain was out-turned to exporters at the port rather than individual up-country sites and where farmers pay the transport costs to port
- GrainCorp's approach to reconciling location differentials was sophisticated and generally well regarded
- some stakeholders expressed concerns about Viterra's lack of willingness to negotiate reconciliation of negative freight differentials or to swap them to freight neutral alternative sites, although it was noted the situation had improved recently
- no comments were made on the operation of Cargill or Emerald Grain's arrangements.

In addition to direct costs associated with site differentials, some exporters noted to the review that site swaps can cause logistical issues and other additional costs—for example, when the exporter is arranging transport from up-country out-turn to port.

Given margins in the grain trade are very low, averaging 0.5 per cent to 1 per cent, or \$1 to \$2 per tonne traded, over the past five years for some Australian trading houses (AEGIC, pers. comm., 9 May 2018), a lack of compensation for freight differential costs incurred by exporters could have a material effect on the returns from engaging in a trade.

It may be opportune for Grain Trade Australia (GTA), open-access up-country storage operators and third-party exporters to engage to establish and/or confirm industry standards and expectations in relation to the reconciliation of freight differentials and other costs arising from site swaps. This may then provide a stronger basis for obligations in commercial agreements and contracts.

7.2.2 Effects of commingling and site swaps on grain quality out-turn

Commingling is a game of averages. Although a segregation will need to meet particular standards, there are likely to be differences between grain stacks and even within a stack owing to the variability in loads delivered into the stack and a lack of mixing (see [Appendix D](#) for more details). This reality is recognised within industry and storage and handling agreements establish conditions accordingly. These conditions essentially underpin the efficient operation of the logistics of an open-access system.

GrainCorp reflected on these industry practices in its submission:

Within Australia, grain is traded on the basis of industry-agreed commodity standards. While there are inevitably slight variances in stack quality from site to site, grain is bought and sold at an agreed GTA commodity standard, not at a stack, site or region standard – this is clearly understood by all market participants. GrainCorp’s Country Storage & Handling Agreement plainly expresses that a customer’s interest ‘represents an ownership right to stored grain of the grade that was classified on receipt and not the same physical grain that was delivered’. (Submission 2.4, GrainCorp)

However, the review heard from exporters that the system can cause problems for them in certain instances. The issue for exporters arising from difference in quality between grain purchased and the grain out-turned is most acute for canola for several reasons:

1. Exporters pay bonuses to farmers for high oil content canola seed (see Box 7.2). Site or stock swaps can result in the bonuses paid by exporters to farmers being lost.
2. Exporters receive bonuses from some importers—in particular, in the European Union—for delivering high oil content canola. Site or stock swaps can result in those potential bonuses being foregone or the payment of contractual penalties.
3. The Australian Oilseeds Federation has not established a minimum delivery standard for canola seed oil content (note: there are minimum delivery standards in Western Australia) and storage operators reflect this in their receipt standards for canola. This means the range of variation in oil content within a canola stack can be potentially very broad.

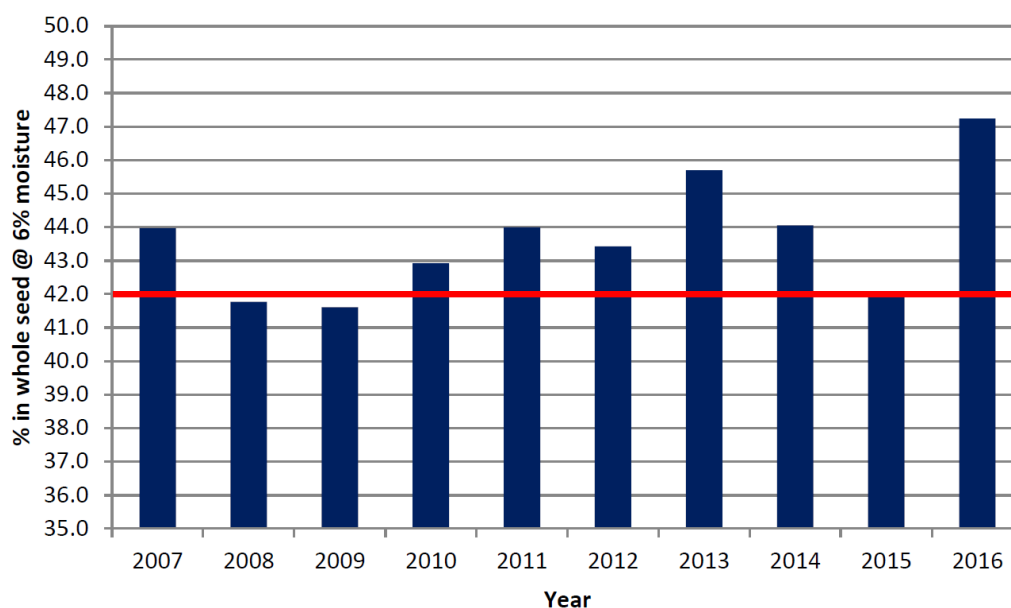
In the past, traders capped their bonification payments at 44.5 per cent oil content, but these caps have been removed (in what could be seen as a pro-competitive move). This benefits farmers who supply high oil content canola, as they now receive the full bonification premiums, but it does pose risk for traders, who could lose some of their bonification premiums as a consequence of the natural variation in oil seed content that occurs in a grain storage network ([Appendix D](#)).

Box 7.2 Canola bonification

Under the Australian Oilseed Federation's canola quality standard, farmers are paid bonuses for high oil content canola. For each 1 per cent above or below the base level of 42 per cent, a 1.5 per cent premium or deduction is paid (AOF 2017). For example, if canola with 42 per cent oil content is trading at \$500 per tonne, canola with 46 per cent oil content would be worth \$530 per tonne. Depending on price and oil content, bonification premiums paid by traders to farmers can be as high as \$50–\$60 per tonne. Bonification payments were introduced by the oil seed industry during the early days of canola production in Australia to encourage farmers to invest in farming practices (for example, higher fertiliser use) necessary to achieve high oil contents. In the past, some traders put caps on the upper limit of oil level to which bonification payments would be paid, but there are no limits in place currently.

The oil content in canola varies significantly depending on the variety, agronomic conditions and the environment in which it is grown. Typically, oil content in canola seed ranges between 35 per cent and 48 per cent (Seberry, McCaffery & Kingham 2017). Canola oil contents vary from year to year and across production areas. For example, AOF's Quality of Australian Canola report found the average oil content for the Australian harvest in 2016 was 47.2 per cent—the highest ever recorded and 1.5 per cent higher than the previous maximum of 45.7 per cent recorded in 2013 (Figure 7.1). Growing conditions in 2016 were favourable, with good in-crop rainfall providing excellent growing conditions for winter crops in all regions of Australia.

Figure 7.1 Average Australian canola oil content, 2007 to 2016



Source: Seberry, McCaffery & Kingham 2017.

Averaging effects would see any underpayment or overpayments in canola bonification premiums as a consequence of quality differentials naturally reconcile themselves in the long run. However, in the short run the potential losses resulting from the combination of lost bonuses and foregone potential bonuses, when multiplied across a 50,000-tonne shipment, can be significant—in the order of several hundred thousand dollars. Large trading houses have the capacity to self-insure against such losses (or foregone revenue); however, smaller trading houses may be more heavily affected.

In consultation undertaken for the review, several traders commented they do not trade in canola, or restrict their canola trading, due to the risks created by the potential loss of

bonification payments (however, this outcome could be seen as the normal pro-competitive operation of the market). Other traders said they attempted to manage the risk by purchasing a lot of canola, and the 'overs' and 'unders' generally worked themselves out, but there could be significant risk associated with any one trade. Other traders noted the risks associated with the canola trade also originated from the higher price paid for canola compared with wheat, separate from any issues associated with bonification.

In general, storage and handling agreements do not make provision for quality reconciliations for site or stock swaps. However, GrainCorp's storage and handling agreement does make provision for quality differentials for canola stock swaps:

How is a Freight Differential and quality differential for canola reconciled in a Stock Swap?

(f) Where a Freight Differential occurs:

- (i) A positive differential is payable by GrainCorp to You; or
- (ii) A negative differential is payable by You to GrainCorp.

(g) Where a quality differential for canola occurs:

- (i) A loss is payable by GrainCorp to You; and
- (ii) A gain is payable by You to GrainCorp. (GrainCorp 2017b)

Relating to the out-turn of grain to quality specifications that are greater than the receival standard (which is the case for canola where there is no minimum oil receival standard or 38 per cent in Western Australia), CBH Group's storage and handling agreement states:

To the extent that the Out-turning Quality Specifications are greater than the Receival Standard, CBH will use reasonable endeavours to meet the Out-turning Quality Specification provided that the Customer has:

(A) given notice of the relevant required Out-turning Quality Specification in the Export Out-turn Request; and

(B) worked with CBH pursuant to a Grain Service Agreement to develop a Quality Management Plan. (CBH 2017)

Emerald Grain, Cargill and Viterro's storage and handling contracts do contain provision for compensation for out-turn defects or downgraded grain (that is, grain that does not meet the out-turn standard). However, as there is no minimum receival standard for canola seed oil content, there is no minimum out-turn standard for it either. Therefore, the out-turn of canola of any oil content will satisfy these contractual obligations.

A range of commercial solutions appear available to address this situation, including the arrangements that GrainCorp and CBH Group already have in place. Other arrangements, such as maintaining a broader range of canola oil content segregations at sites in high oil content years, capping bonification premiums, increasing the industry standard oil content or introducing a

minimum receival standard, could increase costs or reduce marketing opportunities or premiums for farmers.

It is also not apparent an industry code of conduct is the appropriate mechanism to address the problem arising from the loss of bonification premiums. For example, the Australian Government's Industry Codes of Conduct Policy Framework states:

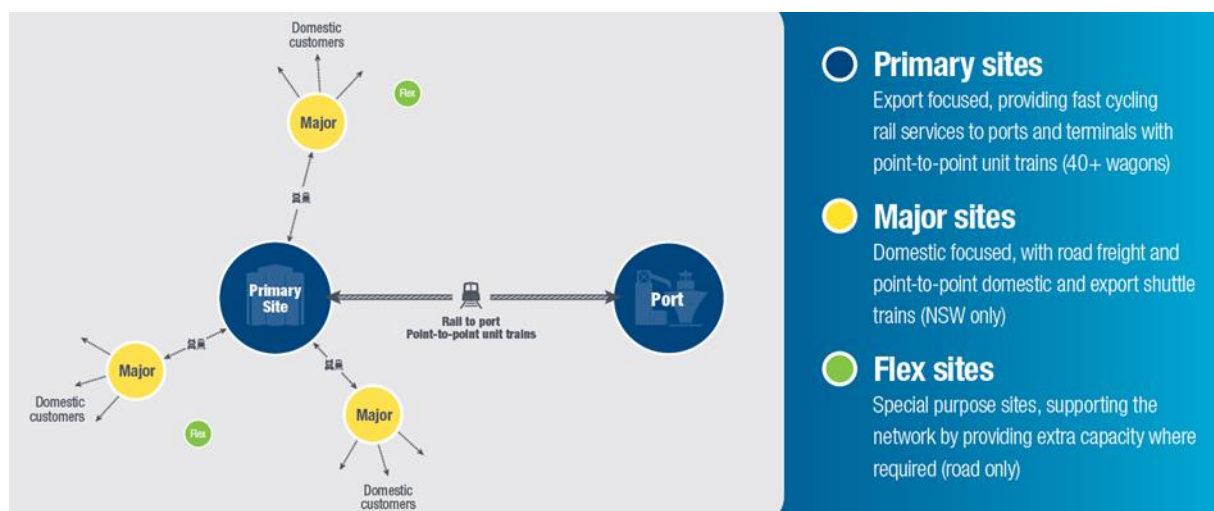
While codes often arise in the context of an imbalance of power, they are not designed to protect smaller participants from competitive pressures that relate to bargaining power, access to markets or limited scale when purchasing. Codes should not be used to restrict competition or unduly interfere with the parties' freedom to contract. Rather, codes are intended to address conduct that goes beyond hard bargaining or vigorous competition, where inappropriate types and levels of costs and risks are being shifted by a stronger party onto a weaker party. (The Treasury 2017)

7.2.3 Being site swapped to a site with lesser outload efficiency or lesser range of quality segregations

Problems can occur in coordinating access for the multiple users of open-access grain storage networks. Investment in upgrading system capabilities, rather than regulation, offers the best long-term solution to this problem.

Up-country sites differ in logistical capabilities and the number of quality segregations they provide ([Appendix D](#); Figure 7.2). Sometimes exporters are site swapped to out-turn from up-country sites that are less efficient—for example, a site with a slower train loading capacity or lower axle weight specifications. This is particularly an issue in east coast states, as in South Australia and Western Australia only Viterra and CBH Group operate grain trains and the coordination of train access for multiple users is not a problem.

Figure 7.2 Schematic representation of GrainCorp's up-country sites



Source: GrainCorp 2014.

GrainCorp's storage and handling agreement provides the following provisions with regard to its obligations to out-turn grain from a site with equivalent logistical capacity:

3(g) To supply stored grain against your order to outload, GrainCorp may in its discretion, nominate an alternative GrainCorp Storage for outload other than the origination site (called the 'outload site') and amend your order to outload accordingly.

(h) In the event GrainCorp exercises its discretion under 3(g) above, GrainCorp will:

(i) Use reasonable endeavours to ensure:

(A) the grade of stored grain at the outload site is the same grade as your accounting stock at the origination site; and

(B) the outload site has rail loading capability (if origination site had rail loading capability); or

(ii) stock swap a tonnage of the grain and grade to meet your order to outload from the origination site to the outload site; and

(iii) notify you of the stock swap and associated payments in accordance with clause 4 below, so the order to outload can be executed in accordance with clause 5 below.

(GrainCorp 2017b)

In consultation undertaken for the review, some exporters expressed concern they were routinely swapped to sites with lesser logistical capability than the site they had bought grain at (that is, the origination site). GrainCorp manages the sometimes conflicting needs of its various customers, including the need for multiple customers to out-turn to trains from a region with sites with varying rail logistical capacities. Although the location differentials resulting from such site swaps are reconciled, the costs resulting from reduced logistical efficiency are not. On the other hand, other stakeholders welcomed GrainCorp's efforts to ensure third-party trains were kept moving, especially in light of the poor condition of the grain rail system in eastern Australia.

The review notes that the east coast market for grain storage and handling, grain transport and port terminal services is increasingly competitive. Businesses operating in this competitive environment have areas of comparative advantage and areas of comparative disadvantage across different parts of the supply chain. In this context, it may be that GrainCorp is sometimes advantaged with regard to the quality of rail access to its sites, but other traders have access to newer, more efficient port terminal facilities. In the long term, the solution to rail access issues lies in investment to upgrade the efficiency of rail out-turn. GrainCorp already has this investment underway through its Project Regeneration investment program (GrainCorp 2014). Aside from GrainCorp's investment, other businesses could choose to invest in their own sites or to partner with GrainCorp to increase the rail capacity of sites of strategic importance to them (that is, 'cooperation': AEGIC forthcoming).

Along similar lines, some stakeholders expressed concern that where they have chosen not to use a PTSP's bundled service offering (which includes up-country storage and handling, transport and port terminal services) they received access to up-country sites with fewer quality segregations, which either increased quality risk or prevented access to grain of a quality similar

to what they had purchased. On the other hand, in consultation undertaken for the review, some PTSPs observed that third-party exporters sometimes sought access to 'A tier' services (which PTSPs were happy to provide) but at 'B tier' prices.

In its submission Viterra advised:

Viterra provides its grower and export customers with a range of up-country services including storage and warehousing, receival and transport logistic services. Viterra provides non-discriminatory access to anyone who wants to use all or part of these services, and each service is adaptable to meet the individual requirements of customers. For export customers, Viterra offers these services on an unbundled basis (Export Standard) or as part of its bundled service package (Export Select). If an export customer chooses Export Select, Viterra consolidates, accumulates and manages the logistics task from its upcountry sites to port on behalf of any owner of grain. Export Select is optional, but provides many benefits to exporters including:

- an increased probability that an exporter's grain is received at port on time and meets the required specifications;
- protection from adverse freight rate movements because rates are fixed at the time of transfer;
- known freight rates between upcountry sites and ports with Export Select rates published every month;
- the adoption of Export Select rates by Grain Trade Australia (GTA) as the location differentials; and
- rebates to share efficiencies and cost savings among users. (Submission 2.9, Viterra)

As per Figure 7.2, service providers base their bundled service offerings on a smaller number of large receival and storage sites, known as primary sites or 'super sites'. These sites are reserved for the grain receival service providers' bundled service offering and are often not available for out-turn to other service providers (however, we note Viterra's submission that it provides access to these sites on an unbundled basis where possible). This increases logistical efficiency for users of the bundled grain-handling services by decreasing the amount of domestic transfers necessary to fill a train or vessel and allows the service providers to negotiate competitive freight rates over the fixed routes (Synergies Economic Consulting 2008). Standard industry practice is that larger receival and storage sites offer a greater range of quality segregations than smaller sites.

As noted above, in workably competitive markets, such as those of eastern Australia, different competing service providers (or different supply chain models) have areas of comparative advantage or disadvantage at various points along the supply chain. In South Australia, outside of the grain-growing regions supplying Port Adelaide, a competitive market for up-country grain receival and handling and port terminal services is still developing and Viterra has a near monopoly position. However, the situation is dynamic, with a rival port and associated up-country infrastructure currently under construction on the Eyre Peninsula and expected to receive grain from the 2018 season's harvest.

Viterra has an interest in positioning its business to best comparative advantage in the face of emerging competition and to provide service offerings that make best use of its infrastructure. It is understandable that Viterra is doing this pre-emptively, before competition is fully established across the whole of South Australia. However, this may create a situation, at least for the short term, in which exporters that do not elect to use Viterra's bundled service offering have access to a lesser range of grain quality segregations than those that do not.

The economic efficiency considerations of the situation are finely balanced. Provision of the same level of quality segregations at all up-country receival sites will increase storage and handling costs, which are ultimately paid by farmers. This will occur because maintaining quality segregations increases complexity and cost in the supply chain (Kingwell 2017) and/or service providers will choose to rationalise some up-country sites, reducing delivery options for farmers and increasing their transport costs (Submission 2.4, GrainCorp).

It is also unclear if differences in grain quality at up-country sites necessarily translate to differences in grain quality at vessel. PTSPs work with exporters on cargo accumulation plans that contain information about the exporters' up-country grain entitlements and their required cargo quality specification. This helps to ensure that exporters can meet their contractual obligations with their importing customers. Appropriate customer service, including the provision of current site quality information by PTSPs to exporters when developing accumulation plans, should help ensure quality out-turn specifications are achieved.

GTA also has contract dispute procedures in place that help to redress any problems arising from quality out-turn contractual specification not being met (which provide recourse where minimum receival standards have been established).

7.3 Other areas of commercial tension

7.3.1 Grain blending / quality arbitrage

The ACCC and some grain exporters raised concerns about grain receival and handling providers benefiting from blending grain within the system. All members of the supply chain, including farmers, can blend various grades of grain (typically wheat) to capture the 'blending margin' that results from blending lower value grain into higher value grain. For example, when accumulating export cargoes, exporters can instruct up-country providers to blend their grain entitlements to meet their contract specifications.

Up-country providers may benefit from positive differences between the quality of grain they receive and the quality grain they out-turn. Up-country providers warrant out-turn to the minimum of the GTA receival standard. This may create opportunities for them to blend grain to meet to that minimum standard. Ownership of supply chain assets creates business opportunities for system owners that are not available to businesses that do not own supply chain assets. It would be problematic to try through regulation to negate benefits that supply chain asset ownership provides.

7.3.2 Location differentials

Grain storage and handling companies commonly use GTA's location differentials as the basis to determine the reconciliation payments for traders affected by site swaps. GTA's explanatory memorandum covering its 2017–18 location differentials advises:

GTA releases location differentials each year to enable pricing of the GTA No 2 Contract—Contract for grain and oilseeds in bulk delivered price basing point or port terms (Basis Track) commonly referred to as the ‘Track Contract’.

If they are used for other purposes this should be done in the knowledge that there may be a difference between the GTA Location Differentials and the actual cost of freight execution. This ‘freight price risk’ or ‘freight basis’ must be managed by commercial interests.

Members must adjust their port based pricing according to their analysis of the Location Differentials. The GTA Location Differentials are not published to be a substitute for management of freight price risk and the variation between the LD and the actual cost of execution of freight must be managed by the organisation commercially. (GTA 2018a)

Actual freight rates are driven by market forces (GTA 2018b). These forces continually change and lead to continually changing freight rates and freight rates differing among up-country service providers. GTA notes these market forces include the following:

- What is the tonnage to be moved versus the available freight capacity? In big crop years, freight capacity could be in deficit and, as a market-driven response, freight charges will be higher. The converse will also apply.
- How far forward did you book the freight? Generally speaking, the further forward a booking is made, the greater the discount to a spot price. Freight providers, like airline companies, like to get forward bookings as an indication of future cash flow. This is not always the case, and for various reasons you may see an inverse in the freight market in the same way that future grain prices could be higher than current values.
- How much tonnage is being booked? An organisation moving 100,000 tonnes against an agreed, disciplined freight program will get their freight at a better rate than an organisation moving 1,000 tonnes with no freight program.
- Is the grain being moved on rail or road? If it is being moved by rail, how many stops are required to fill the train—one stop or multiple stops down the line?
- What time of year is it? The freight program is greatest just after harvest as organisations move grain to port.
- How efficient is the site? (GTA 2018b)

During consultation undertaken for the review some stakeholders expressed concern that site swap reconciliations were based on GTA location differentials rather than real freight costs. That said, other stakeholders advised they had been proactive in successfully negotiating site swap reconciliations based on real transport costs rather than GTA’s location differentials.

Businesses with significant buying power and willingness to forward contract freight are likely to be able to procure access to transport services at relatively lower cost. Negotiation to reconcile location differentials between a business with high transport costs and a business with low transport costs is likely to see the business with high transport costs not fully recover them. This appears to be a legitimate outcome from the operation of the market.

7.3.3 Limits on the bulk handlers' liability with regards to grain quality

The storage and handling agreements offered by the grain storage service providers contain provisions that limit their liability for matters relating to grain quality. For instance, GrainCorp's 2017–18 storage and handling agreement contains the following provision:

7(a) (iii) GrainCorp is not liable for any Claim or Loss associated with non-conformance to the Commodity Standards where the attribute does not form part of the original testing procedure or cannot be reasonably and practicably ascertained by GrainCorp on Receipt or that normally deteriorates in storage over time. This includes germination of malt barley, varietal purity (including GM varietal purity), free fatty acids, falling number, vitreous kernel in durum, the presence of objectionable or toxic substances, Contamination, chemical residues, the level of whole and split/chipped/broken Grain and loose seed coat and broken/shattered pods and other materials of pulses, or cracked and broken levels for maize Received, Stored and Outloaded. (GrainCorp 2017b)

Grain quality can deteriorate or be downgraded in storage for a range of reasons that are outside of the grain receipt and storage operator's control. This results in a grain trader having ownership of a lower value product than they paid for. Of note:

- malting barley can be downgraded to feed-food barley as a consequence of a decrease in germination percentage during storage or as a consequence of chemical residues, which are not tested for upon delivery, subsequently being detected
- pulses (that is, grain legumes), which are brittle, are prone to split or to shed their seed coat during the normal grain-handling process. This can result in their quality being downgraded.

It is reasonable for a storage operator to limit its liability for grain quality matters it cannot control. Such quality downgrades could equally occur in private storage.

Storage operators also place limits on the accuracy of their out-turn specifications. For instance, Cargill warrants grain protein out-turn to within a permitted tolerance:

Permitted Tolerance means, in relation to the measurement of protein or moisture, +/- 0.3 of the percentage result for protein and/or moisture and +/- 1.0 of the percentage result for screenings (e.g. if the percentage measurement specified by the Receipt Standards for moisture is 12.5%, the Permitted Tolerance under this definition is 12.2%–12.8% ... (Cargill 2017).

Variation in grain quality at out-turn relates to the variability in grain quality embedded within commingled grain stacks and across sites ([Appendix D](#)). It is reasonable that a storage operator would seek to establish limits on the accuracy of out-turn. Doing so would appear helpful in aiding an exporter to decide on the ability of out-turn to meet a customer's requirements or the need to blend grain to ensure they are met.

7.4 Stakeholder views on the benefits, costs and risks of up-country regulation

Stakeholders have contrasting views on the benefits, costs and risks of extending some provisions of the code to up-country receival sites as proposed by the ACCC. For its part, the ACCC (Submission 2.1) considered extending some of the provisions of the code would:

- improve the effectiveness of the code by removing a possible impediment to the use of dispute resolution provisions
- promote competition in grain supply chains
- improve the prices growers are offered for their grain
- not impose significant additional up-front regulatory cost.

The ACCC's submission did not contain any critical analysis in support of its proposed benefits. Nor did it address issues of the long-term cost of its proposal, which can be significant in the case of access regulation (Productivity Commission 2013).

Grain receival and handling service providers expressed concern at the costs and risks associated with extending the code to cover up-country grain receival sites. In its submission GrainCorp said:

Extending certain provisions of the Code up-country is likely to have several undesirable, unintended consequences:

- there would be a significantly reduced incentive for industry participants to invest in supply chain infrastructure—up-country and at port.
 - GrainCorp notes that it plans to invest in a significant grain receival site at Yamala, near Emerald in central Queensland. The business case of its proposed investment could be materially impacted by a move to apply access regulation to the site.
- eastern Australian grain would become less competitive in international markets.
- reduced ability for country storage operators to innovate and improve their services to individual customers, for fear of triggering a regulatory response.
- tying up-country regulation to particular port zones would generate substantial confusion and potentially distort grain flows, particularly as production is variable and unevenly distributed. The evolution of the industry means there is already substantial overlap in the drawing arcs of Portland, Geelong and Port Kembla.
- a likely acceleration in rationalisation of less efficient country sites, due to regulatory cost and complexity.
- possibility of further supply chain complexity as separate 'domestic only' supply chains evolve to avoid being captured by the Code. (Submission 2.4, GrainCorp)

GrainCorp also noted that, in the event that supply chain issues do arise, they are resolved through commercial negotiation:

GrainCorp acknowledges that periodically issues can emerge up-country (or at port) where a customer or their transport contractor may be dissatisfied. Occasional disputes are inevitable in a complex and highly contested supply chain. However, we note that such instances are, relative to the volumes handled, extremely rare and each instance has been able to be commercially resolved, without arbitration or legal action. (Submission 2.4, GrainCorp)

In its submission, CBH Group provided an estimate of the costs from regulating its up-country receival sites (although these would not be subject to regulation under the ACCC's proposal, as CBH Group is exempt from parts 3 to 6 of the code):

The additional regulation proposed by the ACCC will increase costs for WA growers, including:

- 1 the direct cost of regulatory compliance, estimated at approximately \$1.5 million per year
- 2 the regulatory chilling effect on investment into, and productivity, in the industry and supply chain (including CBH revisiting its own \$750 million investment in its 100 receival sites of the future)
- 3 the indirect costs driven into the supply chain by additional regulation, resulting in wasted capital from duplication of assets and loss of scale efficiencies, estimated to be in the range of A\$8.5 million—\$17 million per year.

This estimate is based on CBH's past experience of the direct cost to CBH and WA growers of dealing with port access undertakings required under the Code's predecessor—the Wheat Export Marketing Act 2008 (Cth)—over a 5 year period from 2008–2013, which was estimated to be between \$2.6 and \$3.5 million. This amount comprised only the external legal fees incurred by CBH during that time, not the cost of internal resources required to address the regulatory requirements—since that time, CBH has also had additional experience in the costs associated with ACCC regulatory oversight. Further, the costs incurred during that period only related to regulation of wheat exports at CBH's four ports, whereas what is proposed is an expansion of the Code to all grains at ports, and application to all of CBH's 150 upcountry receival points. Therefore, CBH estimates an increase in direct compliance costs to be in the vicinity of A\$1.5 million per year. (Submission 2.3, CBH Group)

Viterra—which could be affected by the ACCC proposal to apply obligations to storage and handling facilities associated with non-exempt port terminal facilities—noted:

... it is clear there is no market failure which requires regulatory intervention in the provision of upcountry services to growers and exporters.

Viterra has no reason to prevent third parties from accessing Viterra's upcountry services, as it has significant commercial incentive to maximise volume within its upcountry facilities. (Submission 2.9, Viterra)

The Essential Services Commission of South Australia (ESCOSA), having focused largely on the performance and behaviour of Viterra, noted 'that the (South Australian) supply chain is not demonstrably inefficient from both an overall and individual supply chain segment perspective' and found:

Supply chain freight and port services fees are being set on a competitive basis ... (draft finding 4.1)

... The global market may place more effective discipline on Viterra's behaviour than any local competition could. (draft finding 4.2)

Viterra appears to be operating as a cost effective bulk grain accumulator ... (draft finding 4.4)

The Commission found no evidence that Viterra's fees are excessive compared with the total fees charged by its eastern Australian counterparts ... (draft finding 4.5)

... The Commission did not conclude that Viterra's returns are currently unreasonable. (draft finding 4.6). (ESCOSA 2018)

Grain grower representative bodies, while recognising the positive intent of the ACCC's proposal, were concerned about potential unintended negative consequences and questioned if the code, or government regulation generally, was the right mechanism to resolve the issues. In its submission GrainGrowers said:

In principle, GrainGrowers supports further consideration being given to these proposals but also believes that given the practices are industry-wide, amending the Code may have limited impact and could have unintended consequences and potentially reduce the competitiveness of the grain supply chain, particularly in South Australia. The Code, while the only available industry-specific regulatory instrument available at the moment, may not be the most appropriate instrument to address these industry-wide practices in the longer term. (Submission 2.8, GrainGrowers)

In its submission Grain Producers Australia (GPA) said:

Grain Producers Australia welcomes the Australian Competition and Consumer Commission's (ACCC's) interest and input on this issue and is pleased that the organisation has acknowledged many of the issues that growers have identified, and called for action on, since the early implementation of The Code, including a potential expansion to incorporate other grains and the inclusion of 'up-country' facilities. That said, we do not believe that The Code is the appropriate mechanism by which to deal with the issues identified. As a result, Grain Producers Australia is calling for a full and robust review of the grain operating environment to identify competition and consumer protection issues and to explore appropriate mechanisms for solutions - both regulatory and non-regulatory. (Submission 2.6, GPA)

7.5 Conclusion

The review's consideration of matters relating to the provision of up-country services was prompted by the ACCC's suggestion that 'the Code would be considerably more effective if it were extended to apply baseline regulatory access arrangements to vertically integrated up-country storage and handling networks' (Submission 2.1, ACCC). However, the review has concluded – with some caution – to not recommend extending the code in this way at this time.

Although a number of businesses across Australia are vertically integrated—providing port terminal and up-country network services, and exporting Australian wheat and other grains—the structure and functioning of the port terminal and up-country services markets are quite different. There is, however, scope for vertically integrated operations to favour the interests of associated grain trading divisions or businesses. The practical question for this review was therefore whether the code might be an appropriate instrument to address that risk and, if so, whether the benefits of doing so exceed the potential costs.

The code is focused on ensuring third-party exporters have fair and transparent access to port terminal services and preventing discrimination and hindrance in the provision of port terminal services. This does not preclude extending the code to cover up-country services. Of the various issues relating to up-country access raised with the review, concern about uncompensated up-country site swaps was of most substance. Concerns were greatest in relation to South Australia. They were also more likely in relation to canola, although it was evident that GrainCorp's practices, for example, were generally well regarded, indicating the potential for industry led solutions.

In addition to access related issues, the review received comment from open-access network customers about other up-country practices and contract conditions they felt disadvantaged them. Open-access networks, while appearing to be socialised operations receiving grain from local farms and out-turning grain to multiple domestic and export clients, are commercial businesses. Unlike pre-deregulation storage and handling operations that essentially serviced a single exporter, contemporary open-access operations serve competitive markets. However, the systems have some legacy issues and the operating model has some weaknesses. Many issues raised related to commercial tensions and complexities related to this model. They are generally considered in service contracts and agreements, however there is scope for industry to set clear and consistent expectations in relation to reasonable service outcomes.

The review has concluded that the code is contributing to workable outcomes for PTSPs and exporters and that third-party exporters have access to the port terminal services they need. Despite there being a foreseeable risk of a vertically integrated PTSP operating its up-country network to disadvantage competing exports with anti-competitive behaviour, the review did not find evidence of such practices.

It is for this reason, the review has concluded to not recommend extending the code to include up-country infrastructure at this time. The review has reached this conclusion with some caution and acknowledges there may be relationship issues and operations and contractual matters that could be improved by service providers in conjunction with clients and industry representative organisations.

In future, governments may consider instituting baseline regulatory access arrangements to vertically integrated up-country networks if new evidence emerges of intentional and unreasonable practices. Any action will need to consider whether the port access code is the appropriate instrument for targeting up-country business conduct.

Recommendation 12

That Grain Trade Australia take the lead in engaging with open-access up-country storage operators and third-party exporters to establish and/or confirm industry standards and expectations in relation to the reconciliation of freight differentials and other costs arising from site swaps.

If, despite action by industry, new evidence emerges of a non-exempt PTSP using its market power to intentionally and unreasonably restrict fair and transparent access to grain for export through operation of its up-country storage and handling network, the need for intervention, including regulation, should be considered.

Appendix A: Submissions received

The interim review report drew on information and views provided in stakeholder submissions on the [Wheat Port Code review issues paper](#). These stakeholders made submissions:

- 1.1 Australian Competition and Consumer Commission (ACCC)
- 1.2 GrainCorp
- 1.3 Grain Producers SA
- 1.4 Grain Trade Australia (GTA)
- 1.5 NSW Farmers
- 1.6 CBH Group
- 1.7 ADM Trading Australia
- 1.8 Grain Producers Australia (GPA)
- 1.9 Victorian Farmers Federation (VFF)
- 1.10 AgForce Grains
- 1.11 WAFarmers
- 1.12 GrainGrowers Limited
- 1.13 A stakeholder survey
- 1.14 Viterra

Following the release of the interim report a second round of consultation was conducted. These stakeholder made submission to the second round of consultation:

- 2.1 Australian Competition and Consumer Commission (ACCC)
- 2.2 WAFarmers
- 2.3 CBH Group
- 2.4 GrainCorp
- 2.5 Victorian Farmers Federation (VFF)
- 2.6 Grain Producers Australia (GPA)
- 2.7 AgForce
- 2.8 GrainGrowers Limited
- 2.9 Viterra
- 2.10 Grain Trade Australia
- 2.11 Pastoralists and Graziers WA

Submissions to both rounds of consultation are available at [Review of the Wheat Port Code](#).

Appendix B: Australian wheat exporters

ADM Trading Australia Pty Ltd

Agrigrain (Plum Grove is a major shareholder)

Arrow Commodities Pty Ltd

Australian Grain Export Pty Ltd

Bunge Agribusiness Australia Pty Ltd*

Cargill Australia Limited*

CBH Limited*

CHS Broadbent Pty Ltd

COFCO International Australia Pty Ltd*

Emerald Grain Pty Ltd (wholly owned by Sumitomo)*

Glencore Agriculture Pty Ltd (Viterro is a Glencore company)*

GrainCorp Operations Ltd*

GrainTrend Pty Ltd

JK International Pty Ltd

Louis Dreyfus Company Australia Pty Ltd

Origin Grain Pty Ltd

Plum Grove Pty Ltd (shareholders include Mitsui, Salim Group and Seaboard Corporation)

Riordan Group Pty Ltd*

Riverina (Australia) Pty Ltd*

Wilmar Gavilon Pty Ltd (a joint venture between Wilmar International Limited and the Marubeni Corporation)*

(An asterisk indicates that an exporter operates, has an interest in or relationship with a port terminal facility in Australia; 2016–17.)

Appendix C: Monopoly power

Natural monopoly means that the most efficient structure of an industry could be a single large firm. This typically occurs when large infrastructure investments lead to economies of scale and falling average costs across the relevant range of production. Potential new port service providers face a large up-front investment to establish a new facility. Any new facility may then be under-utilised because of the dominant market share held by the incumbent port owner.

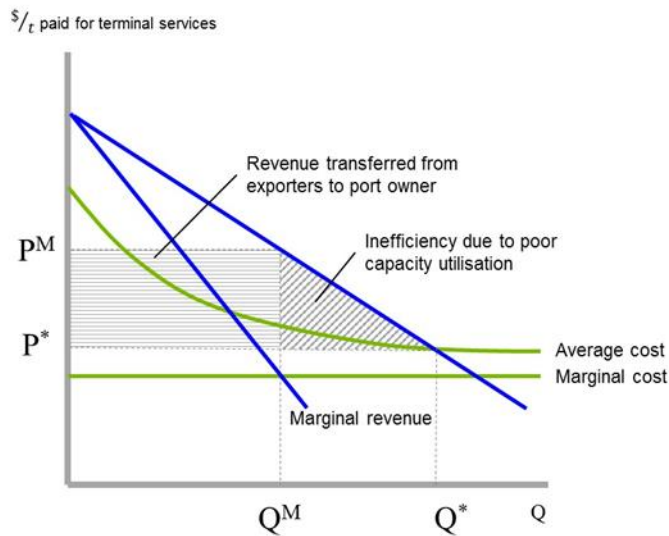
Monopoly power can also be created by historical government and industry decisions to convey exclusive infrastructure or export marketing rights on selected businesses. Since the competition reforms of the 1990s, this occurs mainly in agricultural industries when farmers grant partial or exclusive monopoly rights over infrastructure or marketing services. Although statutory monopoly marketing arrangements have largely ceased and the assets have been privatised, the current owners of port terminals may retain market power gained from the previous government or farmer cooperative-derived monopoly position.

Monopoly power can provide port operators with an incentive to set the price that exporters pay for port services above the level that would prevail in a competitive market. In Figure C.1, a monopoly port operator has a strong incentive to charge PM dollars per tonne for port services rather than the more efficient average cost pricing of P^* dollars per tonne (see Weimer & Vining 2015 for a detailed explanation).

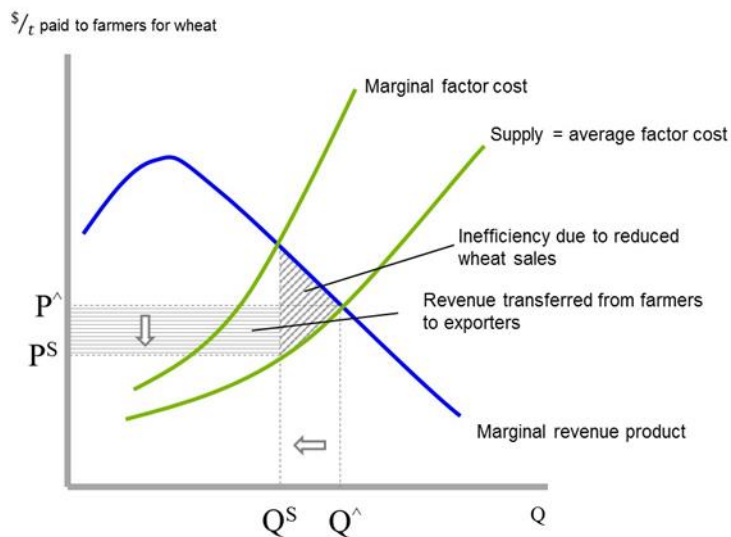
Monopoly pricing results in a transfer of revenue from exporters to the port operator. This transfer can accrue as excessive profit for the port operator or be dissipated through cost padding. The restriction on trade (Q^M is less than Q^*) is inefficient because ports are used well below their cost-minimising capacity. The higher cost of port services paid by exporters could be expected to be at least partially passed on to farmers through lower wheat prices.

In regions where natural monopoly in port services could occur, the critical price to monitor is the average cost of providing port services to exporters (P^* in Figure C.1).

Monopoly power can also support a range of other anti-competitive behaviours and unconscionable conduct. For example, a monopoly port operator could restrict access (Q^M rather than Q^* in Figure C.1) by setting unreasonable contract conditions or excluding exporters other than those owned by the same 'vertically integrated' group of companies. A monopsony (a market with a sole buyer) may provide exporters with the monopoly power to set the prices paid to farmers for wheat below the level that would prevail in a competitive market. In Figure C.2, a monopsony exporter has a strong incentive to pay farmers P^S dollars per tonne for wheat rather than the P^A dollars that would be paid in a competitive marketplace.

Figure C.1 Price charges by monopoly port operator to third-party exporters

In operating contexts where exporters could exercise market power over farmers, the critical price to monitor is the price paid to growers for wheat (P^{\wedge} in Figure C.2). This would help establish whether pricing is competitive. In addition to pricing monitoring, another policy option is to limit the market share of companies in markets where monopoly power could develop, making markets more competitive.

Figure C.2 Price paid by monopsony exporter to farmers

Appendix D: Storage site operations

Grain storage businesses are multi-sided platforms. On one side they interface with farmers who deliver grain into the system and on the other with grain traders who are delivered grain out of the system. The obligations of the operator and customers are managed under contracts.

Receival service and warehousing agreements (or their equivalent) establish the conditions on dealings between businesses supplying grain into the system and the system operator. Storage and handling agreements (or their equivalent) establish the conditions on the dealings between businesses that receive grain from the system and the system operator. These contracts are typically agreed once a year at or before harvest.

Ownership of grain is not transferred to the storage operator when it is delivered into the system. The legal relationship between the storage and handling service provider and the grain owner is one of bailment—that is, the storage and handling service provider has possession of the grain but does not own it.

Up-country receival sites in Australia are usually operated on an open-access basis. Multiple traders, including the trading arm of the site owner (in the case of vertically integrated grain storage and receival and export businesses) can purchase grain at a site and receive grain from that site. GrainCorp, CBH Group, Glencore–Vitol, Emerald Grain and Cargill operate their up-country sites on an open-access basis. Recently, some business have started operating closed-access sites at which only the trading arm of the site owner trades the grain delivered to the site. For example, Bunge operates the two sites that service its Bunbury port facility on a closed-access basis.

Farmers deliver grain into off-farm receival sites by truck. At delivery, the farmer (or their agent) declares information about the grain. The grain is sampled and analysed for a suite of quality characteristics by the receiver. The receiver directs the grain into a grain stack or silo based on the information provided and the results of the quality analysis. Receival sites maintain a limited number of quality segregations for each grain type, with farmer deliveries commingled based on receival standards (Kalisch Gorden et al. 2016). Receival standards used by the receival sites are based on the industry standards developed and maintained by Grain Trade Australia, the Australian Oilseeds Federation and Pulse Australia. Receival sites may also maintain niche segregations based on demand or to differentiate themselves in the marketplace.

Grain Trade Australia currently recognises 29 quality standards for wheat (including durum), depending primarily on variety, protein content (per cent), test weight (kilogram per hectolitre) and the percentage of unmillable material (per cent; Box D.1). Receivers decide on the appropriate segregations to establish at an up-country site based on seasonal conditions and the varieties that have been planted most commonly in the area served by a receival site. They will often consult with local farmers who deliver to a receival site in making their decision. In general, storage operators provide more quality segregations at sites that handle larger volumes of a commodity and fewer segregations at those sites that handle only small volumes.

Box D.1 Determinants of grain quality

Grains are used for a variety of commercial end uses. Quality parameters generally reflect factors that determine the suitability of grain for specific end uses. Industry bodies Grain Trade Australia, Pulse Australia and the Australian Oilseeds Federation develop and maintain grain quality classification standards:

- **Variety**—varieties of wheat, barley and canola are assessed and rated for their suitability for particular end uses—for example, malting (barley); bread, biscuit or noodle making (wheat); or the possible presence of genetically modified material (canola). Farmers must declare the variety when delivering the grain. Aside from the farmer's representation, varietal classification cannot be assessed at the point of delivery.
- **Protein percentage**—this is an important determinant of wheat and barley's suitability for specific end uses relating to baking or noodle making or brewing performance. Protein percentage is routinely measured upon delivery. Protein percentage is generally inversely related to yield (that is, high when yields are low and vice versa) and increases in response to the use of nitrogen fertilisers.
- **Germination percentage**—this is an important determinant of barley's suitability for malting, in which barley is germinated and then dried. Germination percentage generally declines with time in storage and cannot be assessed at the point of delivery.
- **Oil content**—canola is grown primarily for oil; therefore, oil content is the most important parameter when assessing canola quality. The oil usually accounts for 65 per cent to 80 per cent of the seed value, with the meal accounting for the balance (NSW DPI 2014). Oil content is routinely measured upon delivery. Oil content declines in response to environmental stress, such as drought or frost, during pod filling.
- **Physical appearance**—this is an important determinant of quality for pulses destined for human consumption. The physical appearance of pulses is assessed at delivery by comparison to industry photographic standards. Physical appearance can be affected by pests or diseases and rain at harvest and can deteriorate as a consequence of grain handling, which can damage the brittle seeds of pulse legumes.
- **Chemical residues**—the presence of any level of detectable chemical residues precludes the use of some grains for some purposes. For instance, some export markets do not accept malting barley with any detectable levels of glyphosate. If glyphosate is applied to malting varieties, the highest grade achievable is feed barley. Farmers must declare the use of glyphosate when delivering the grain. Aside from the farmer's representation, chemical residue levels cannot be assessed at the point of delivery.
- **Defective grains**—screenings (small grains) and sprouted grains affected by moisture affect the physical or chemical properties of the grain, making it unsuitable for processing. Sprouted grain is generally used for stockfeed.
- **Pest or disease damage**—fungal diseases and insect pests can cause the appearance of the grain to deteriorate. Some level of damage is generally acceptable, but beyond a specified level the damage would result in the grain being downgraded.
- **Foreign seed contamination**—limits are established on the amount of seeds of any plant that are present other than the species of crop being tendered for delivery.
- **Other contaminants**—limits are established on other forms of contamination—for example, sticks, earth, insects or other animal material.

Compared with wheat, other grains have fewer recognised national industry quality standards:

- barley—malt grade (three quality standards) and feed grade (three quality standards)
- sorghum—two grades
- oats—three grades
- maize—three grades
- canola—two grades
- desi chickpea—three grades (GTA, 2017; Pulse Australia 2017 and AOF 2017).

Storage operators may choose to provide quality segregations other than those recognised in the national industry quality guidelines.

Farmers retain ownership of grain—or the entitlement to grain—in warehouse storage and offer it to buyers usually via the warehouse owner’s electronic stock management system. Grain traders compete for this grain through price offers. This open-access system contrasts with that in the United States and Canada, where grain traders operate closed-access sites with only one buyer at each site. In Western Australia most grain is sold ‘free-in-store’ (FIS) at port. However, grain sales can also occur at up-country receival sites, particularly in eastern Australia and South Australia, with specific pricing at individual sites (White, Carter & Kingwell 2015).

Commingling and out-turn entitlements

The storage and handling agreements offered by systems operators contain provisions allowing them to commingle grain owned by third-party farmers or exporters in the up-country grain storage system. For example, Cargill Australia’s GrainFlow storage and handling contract states:

4.6 GrainFlow may, where reasonably necessary or practicable, commingle any Commodities with commodities belonging to or stored on behalf of any third party, provided that the Commodities will not be commingled with commodities of a different commodity type. Commingled commodities will be deemed to be common commodity of specified quality stored in bulk and title to the common commodities will be held jointly by the Client, the Other Clients and Growers whose commodities form part of the common commodities stored in bulk at the Storage Facilities. Subject to the provisions of this Agreement, at any time the Client’s interest in the common commodities will be equal to the Client’s Out-turn Entitlement.

Each Client will hold its interest in the common commodities as tenants in common and the Client will not have the right to nominate any particular parcel of common commodity as being owned by the Client. For the avoidance of doubt, subject to the provisions of these terms and conditions, the Client’s interests represent an ownership right to commodities of the same type and grade that was determined by GrainFlow and delivered by or transferred to the Client (and not the same physical commodity that was delivered by the Client or transferred to the Client as delivered by a Grower). (Cargill 2017)

One of the consequences of commingling grain and segregation of grain based on a span of quality (for example, commingling wheat of between 10.5 per cent and 12 per cent protein into a single stack) is that there can be variation between the grain purchased at a site by a trader and

the product out-turned from the site to the trader. Grain delivered into the open-access bulk handling system is not routinely segregated based on ownership (although it is possible for farmers or traders to rent a cell at a site to warehouse their grain, industry advises this option is seldom used). It would be impractical to maintain separate quality segregations for every individual farmer or trader that owned grain at an up-country storage site.

The consolidation of grain from different farms across a region into a stack of grain can embed natural variability in grain quality within the stack (Figure D.1). This variability can originate from environmental factors that affect grain quality and vary across production regions. For example, crops from areas that are droughted as the crop matures are generally ready for harvest and delivery before crops that have more adequate supplies of water. These crops may also have higher protein levels (in the case of wheat and barley) or lower oil levels (in the case of canola).

Aside from natural variability in grain quality, it is also possible that some of the information provided by the farmer, which cannot be otherwise tested at delivery, could be incorrect. Later, when further testing identifies this error, the quality of all the grain in a commingled stack may have to be reassessed and possibly downgraded to a lower value classification. It is also possible for some aspects of grain quality to deteriorate in storage (such as germination percentage of barley) or during normal grain-handling processes (such as the percentage of splitting in pulses).

Traders that own large, spatially distributed volumes of grain across a number of accumulation sites are more likely to achieve near mean quality out-turns. Traders owning small parcels of grain and seeking out-turn of small parcels of grain or seeking access to grain from one particular up-country site could receive grain that differs significantly from the mean or what they purchased as consequence of natural variation in the system and stock swap effects.

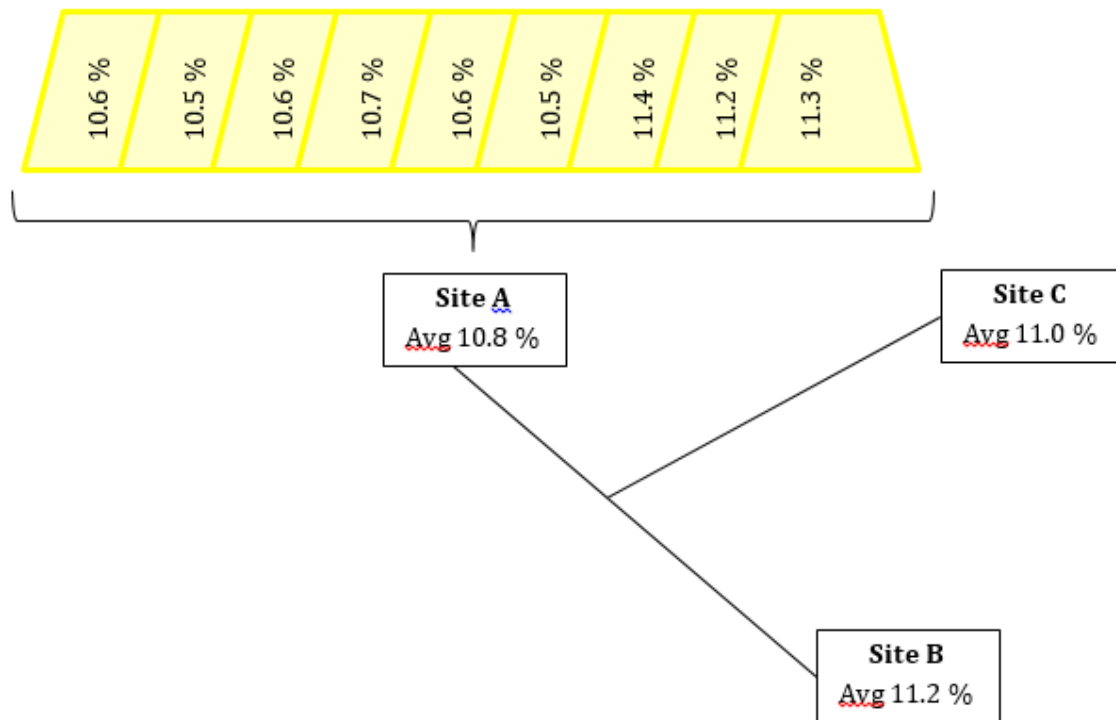
Stock and/or site swaps

Storage and handling agreements contain provisions allowing bulk handlers to out-turn grain from a site other than the site at which it was purchased. For example, regarding the out-turn of grain, Cargill Australia's GrainFlow storage and handling contract states:

7.2 The client agrees that GrainFlow may, in its discretion, out-turn commodities from a storage facility (alternative storage facility) other than the storage facility at which the client acquired the commodities (original storage facility) if GrainFlow determines, in its reasonable opinion, that it is operationally efficient to out-turn the Commodities from the alternative storage facility. (Cargill 2017)

These practices are known as 'stock swaps' and/or 'site swaps'. These swaps can result in grain being out-turned closer to or further from the port or the quality of the out-turned grain being different from the quality purchased from the grower. Site swaps are routine in the GrainCorp and the Viterro up-country grain-handling systems, where traders buy grain at up-country sites, but are less prevalent in the CBH Group system, where the majority of grain entitlement is held at a port zone level rather than the level of an individual up-country site (Submission 2.3, CBH Group).

Figure D.1 Variation in protein levels within a schematic wheat stack (10.5 per cent minimum protein) and between stacks at three different up-country receival sites



Differences between grain receival sites

Sites in up-country receival systems do not necessarily have the same logistical capabilities or offer the same grain segregations. Differences between sites can include:

- some sites having access for road and rail out-turn, whereas others provide access for road out-turn only
- the rail loading capacities of sites varying due to differences in siding length and speed of wagon loading
- the number of quality segregations—typically, smaller sites that handle smaller grain volumes provide fewer quality segregations.

Fumigation

Up-country sites are routinely shut down for periods of time, generally a month, while they are fumigated to control grain insect pests. GrainCorp's submission advised that grain required regular fumigation, generally going under gas every two to three months for up to 28 days (including treatment and ventilation time). Grain cannot be out-turned from these sites until chemical residues have declined to acceptable levels, which means that grain is not always immediately available at the location it was purchased (Submission 2.4, GrainCorp). Occasionally, fumigation treatments do not work and must be repeated, which lengthens the period of time a site is unavailable for out-turn. The evolution of pesticide resistance among populations of grain pests is a particular challenge for the Australian grains industry in respect to both on-farm and off-farm grain storage.

Operating context

Open-access grain storage systems are multi-sided platforms that service farmers on one side and grain traders on the other. In addition to their farmer and grain trader customers, the systems also interface with a range of additional factors that affect their operation and ability to meet customer requirements. Taken as a whole, some of the factors that affect the performance of the systems, which are outside of the operator's control, include:

- the accuracy of declarations made by farmers about the grain they deliver into the system
- decisions taken by rail asset owners or leaseholders
- the need to share rail access with other rail users (for example, the coal industry)
- grain pests
- the workplace, health and safety obligations of businesses to their staff, including fatigue management obligations for heavy vehicle operators
- the weather, including the need to shut sites or reduce train operations during periods of extreme fire danger
- the sometimes competing requirements of traders operating out of the system, including the domestic trade
- grain being a natural product, whose quality naturally varies and changes over time in storage or as a consequence of handling.

Glossary

Term	Definition
bulk wheat	Wheat to be loaded onto a ship for export. Does not include wheat to be exported in a bag or container that is not capable of holding more than 50 tonnes of wheat.
CCA	<i>Competition and Consumer Act 2010</i> (Cth)
code	Port Terminal Access (Bulk Wheat) Code of Conduct. Schedule 1 of the Competition and Consumer (Industry Code—Port Terminal Access (Bulk Wheat) Regulation 2014.
downstream market	In the context of the code, markets for services in the bulk wheat export supply chain that follow the provision of port terminal services (for example, exporting and marketing services).
port terminal facility	<p>A ship loader that is at a port and capable of handling bulk wheat, and includes any of the following facilities, situated at the port and associated with the ship loader, that are capable of handling bulk wheat:</p> <ul style="list-style-type: none"> • an intake/receival facility • a grain storage facility • a weighing facility • a shipping belt.
PTSP	Port terminal service provider, defined under the code as ‘the owner or operator of a port terminal facility that is used, or is to be used, to provide a port terminal service’.
up-country infrastructure	Storage silos or bunkers that receive grain by truck and load grain on to trucks or trains at regional sites away from the port zone.
upstream market	In the context of the code, markets for services in the bulk wheat export supply chain that precede the provision of port terminal services (for example, storage and transport services).

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