



Improving Australia's containerised grain exports

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AEGIC analysed Australia's containerised grain export supply chains. Their nature and costs were compared against Australia's bulk grain supply chains. AEGIC identified opportunities to improve Australia's containerised grain supply chains.

Globally, the COVID pandemic greatly affected the trade of containerised goods, including grains. Lockdowns in cities and ports altered household consumption patterns and reduced the continuity of supply of household goods from manufacturers. Timely access to containers eroded and the reliable supply of containerised goods, including grains, diminished.

Most importantly, the cost of sea freight of containerised goods hugely increased ([Figure 1](#)). On several trade routes the cost of container sea freight quadrupled.

The usual profit margins on most grains and fodder shipped via containers hugely lessened. Normally, these profit margins are not large.

End customers typically have limited capacity to pay a lot more for the grains and fodder if their supply chain costs increase. Hence, under COVID, many Australian exporters have struggled to maintain the reliable supply of containerised grain and fodder to their customers, and the profitability of export operations has greatly diminished.

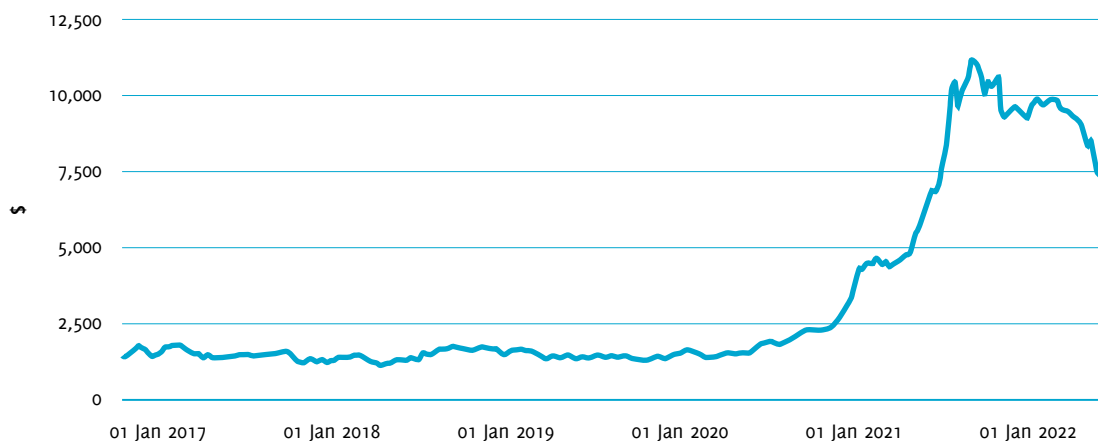
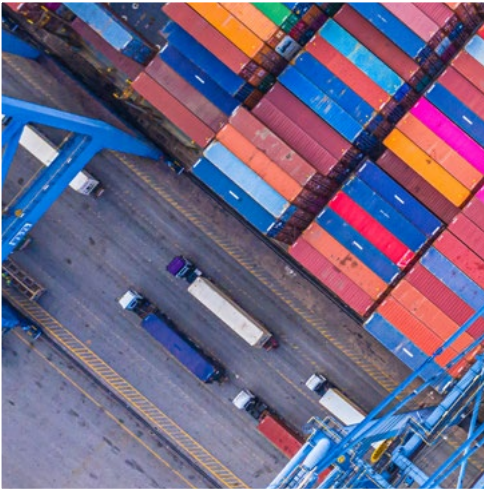


Figure 1. The Freightos Baltic Index Global Container Index



What to do?

Recommendations

Market access

- Develop and support new or existing market opportunities for Australian grain and fodder and identify opportunities that fit the capabilities of Australia's supply chains.

Supply chain investment

- Support investments that create or maintain least-cost, low emission grain paths for containerised grain and fodder.
 - Support infrastructure investments that complement the Inland Rail to facilitate cost-effective movement of containerised grain and fodder, and empty containers.
 - Invest in transport modes and pathways that increase mass limits.
 - Invest in infrastructure to fix inefficiencies in the supply chain caused by larger ships, inadequate rail access to some container ports, and a shortage of space in some empty container parks.
 - Invest in protection and maintenance of buffer zones of container transport corridors.

Oversight and regulation

- More effectively monitor bulk and container supply chains to support evidence-based policy-making and beneficial investment.
 - More effectively regulate container ports to boost their efficiency and avoid spatial monopolist behaviour.
 - Ensure container port developments by governments and industry achieve enduring economic and ESG (environmental, social, governance) outcomes rather than sole short-term budgetary relief or commercial advantage to incumbents.
 - Review and appropriately regulate domestic and international container shipping.
 - Enhance coordination and provision of data hubs to facilitate management and investment in containerised grain supply chains.
 - Protect and maintain buffer zones of least-cost, low emission containerised grain pathways.

- Frequently revise biosecurity protocols and processes underpinning containerised grain exports to improve their cost-effectiveness. Continuously improve the training of authorised officers.
- Investigate policies and regulations to cost-effectively reduce export execution risks in containerised grain supply chains.
- Where appropriate, further align transport regulations to form national standards to support least cost corridor networks.
- Help devise cost-effective responses to the structural challenge of gradual reduced availability of 20ft food grade containers.

Grower education

- Educate growers and other prospective participants about execution risks associated with containerised grain.
- Educate these same participants about how to soundly manage these risks when exporting containerised grain and fodder.

These recommendations draw on several key findings.

Key findings



Australia regularly exports over 3mmt of grain in containers

There are over 100 grain container packing businesses in Australia and over 70 per cent are located in NSW, Vic or Qld. Containerised grain exports (e.g. [Figure 2](#)) from these states regularly equate to over 30 per cent of their total grain exports.



Australia regularly exports around 1mmt of fodder in containers

Complementing containerised grain exports are exports of fodder. Often unappreciated is how much fodder is exported via containers from Australian ports. Over several decades Australia has developed some key markets for export hay.



Relative to the bulk export of grain, containerisation offers several advantages but also some disadvantages

The many advantages of containerisation ensure containerisation will remain an important part of the supply of Australian grain to many overseas customers.

The per tonne costs of containerised grain supply chains, prior to ocean freight charges, are not greatly different from the costs of Australia's bulk grain supply chains. But by far the main cost component of containerised grain supply chains since late 2020 has been sea freight ([Figure 1](#)).



The ramifications of COVID have greatly affected the profitability of containerised grain exports

The main difficulties in exporting containerised grain and fodder from Australia are largely beyond the simple control of Australian governments and the Australian grains industry; but some remedial actions are possible. These actions are not simply band aid remedies but are immediately and strategically worthwhile actions.

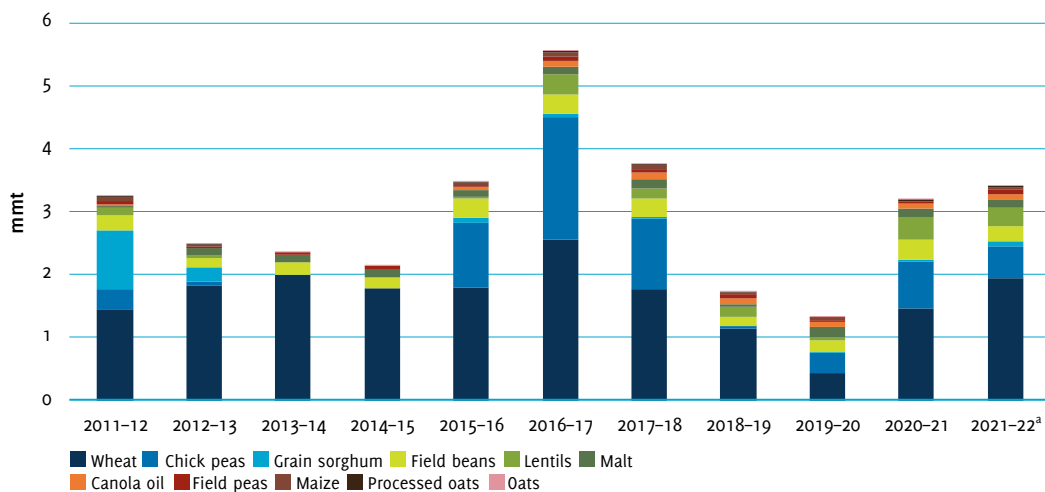
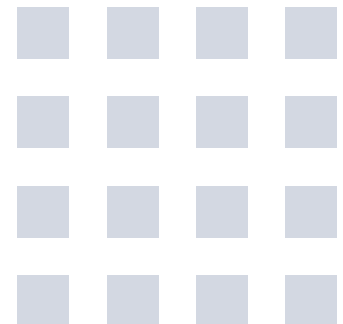


Figure 2. Containerised grain exports from Vic, NSW and Qld since 2011 until end of March 2022



Beneficial actions by government and industry exist in four areas: market access; supply chain investment, oversight and regulation; and grower education

Market access

Collaboration between Australian governments and the Australian grains industry can ensure new or existing market opportunities for Australian containerised grain and fodder are maintained, further developed, or freshly developed. Growing populations and per capita wealth in East Asia, South East Asia and South Asia underpin increasing market opportunities for Australian containerised grain and fodder, especially where end users have a preference or sole ability to receive containerised products.

Supply chain investment

Opportunities for new investments in supply chain infrastructure can create or maintain least-cost, low emission grain paths for containerised grain and fodder. Such investments will help drought-proof eastern Australia and help lessen the cost of food items dependent on feed grains and

fodder. New infrastructure investments can fix some inefficiencies in the containerised grain export supply chain caused by larger ships, inadequate rail access to container ports and a shortage of space in some empty container parks.

To lessen future road traffic congestion, greater investment in intermodal hubs and rail access to ports is necessary. Provision of land and infrastructure for empty container parks and rail services to ports is a major investment challenge due to the expense and scarcity of land at and around ports.

Oversight and regulation

Australian governments can aid the cost-effective, low emission flow of containerised grain and fodder via their oversight and regulatory roles. The ACCC should be provided with statutory powers to gather the required information from industry players to closely examine margins throughout the containerised grain supply chain, including domestic and international shipping, to ensure no excessive use of market power is occurring and that information flows encourage competition.

Governments need to ensure that grain supply chain businesses and service providers, including domestic and international shipping, are subject to monitoring, scrutiny and

regulation, where required. Governments of Australia's key grain export competitors, Canada and the USA, are already taking action to create greater efficiencies in their containerised grain export industries.

Buffer zones for least-cost, low emission grain pathways should not only be formed but should also be actively protected and maintained by state and local governments. Lastly, wherever cost-efficiencies are not eroded, transport regulations should form national standards to support least cost corridor networks.

Opportunities for education

Educating prospective participants, keen to export grain or fodder in containers, about these issues is essential. In addition, educating prospective and current participants about how to best manage these execution risks is also essential. Otherwise, the outcome is likely to be reduced profits and reputational damage to these businesses and possibly to the broader export fraternity.

Industry and government can collaborate to collate information to lessen the opaqueness of containerised grain supply chains and then also invest in education or training for prospective participants in containerised grain export.

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