Australian fisheries and aquaculture outlook 2020

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Australian fisheries and aquaculture timeline

**Fisheries production value to dip**

Fisheries and aquaculture production value is projected to fall in 2019–20, caused largely by reduced export demand from China following the 2019 coronavirus (COVID-19) outbreak. Market conditions are expected to normalise in 2020–21 and production value is expected to rise over the medium term (2020–21 to 2024–25).

- **2014–15**: Australian dollar at its strongest against the Japanese yen since 2008–09 affecting tuna prices.
- **2018**: Southern bluefin tuna quota increased significantly.
- **2019–20**: COVID-19 outbreak expected to impact production values due to lower export demand from China.
- **2020–21**: Assumed normalisation of export markets.
- **2024–25**: Salmonids projected to reach production value of $1 billion.

**GROSS VALUE OF PRODUCTION**

- **2010–11**: Value of salmonids production exceeds $500 million.
- **2015–16**: Record high export price for rock lobster.
- **2015–16**: Fuel price lowest since 2002–03.
- **2019**: Australian fisheries products enter China duty-free under ChAFTA.

**2020–21 to 2024–25**

Expected growth of the production value of fisheries and aquaculture in real terms: 2.4%.

\( f \) ABARES forecast. \( z \) ABARES projection.
Outlook for Australian fisheries and aquaculture

Fisheries production value to fall in 2019–20
Fisheries and aquaculture production value is forecast to decline by 12% in 2019–20 to $2.81 billion. A fall in rock lobster production value is expected to account for the majority this fall, driven largely by the effects of reduced export demand from China following the outbreak of the 2019 coronavirus (COVID-19). The outbreak is assumed to impact markets for the second half of the 2019–20 financial year followed by a resumption of typical market conditions by the end of the financial year.

Production value is expected to rise by 21% in 2020–21 to $3.40 billion following the assumed normalisation of export markets. In addition, some of the forgone production volume (especially from quota-managed fisheries, including rock lobster and abalone) in 2019–20 is expected to be carried over to the next financial year through some producers choosing to delay catching their seasonal quota until the second half of 2020, increasing production value in 2020–21. This is likely to subdue price recovery over the short term.

The magnitude of the impact of the COVID-19 outbreak is uncertain and depends on the extent of the outbreak, its duration and the effectiveness of control measures. Because of this, the effects of the outbreak could last beyond the 2019–20 financial year. For more information on COVID-19 see Potential impact of COVID-19 outbreak on fisheries exports.

Production value to rise over the medium term
Between 2020–21 and 2024–25 Australian fisheries and aquaculture production value is projected to rise by 2.4% to $3.41 billion in real terms (2019–20 dollars). This is largely the result of expected growth in production value of salmonids, prawns and abalone. Aquaculture’s share of total production value (from expanding sectors, including finfish, abalone and prawns) is expected to continue to rise.

Aquaculture’s share of production value to rise
The aquaculture sector steadily increased its overall contribution to Australian fisheries and aquaculture GVP between 2000–01 and 2017–18. This mirrors a global trend of an increasing share of fisheries production from the aquaculture sector (FAO 2018). For Australia, the growing share of aquaculture production value has largely been the result of the rapid rise of the salmonid industry as well as a period of declining wild-caught production value during the 2000s. Over the medium term aquaculture’s share of production value is projected to
continue to rise and account for nearly half of Australia’s fisheries and aquaculture production value by 2024–25. Continued growth in salmonid aquaculture production is the key driver behind the growth in aquaculture’s share of production value, but increased prawn and abalone aquaculture production are also important.

**Fisheries production value by sector, 1999–2000 to 2024–25**

<table>
<thead>
<tr>
<th>Year</th>
<th>Wild-caught</th>
<th>Aquaculture</th>
</tr>
</thead>
<tbody>
<tr>
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<td>2.0</td>
</tr>
<tr>
<td>2005</td>
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<tr>
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<td>1.0</td>
<td>0.0</td>
</tr>
<tr>
<td>2025</td>
<td>0.5</td>
<td>0.0</td>
</tr>
</tbody>
</table>

* ABARES estimate. ** ABARES projection

Source: ABARES

**Fisheries exports to decline in the short term**

Australia’s trade in fisheries products is driven by several factors, including the proximity of Australia to a fast-growing seafood market in Asia and Australia’s reputation as a reliable and high-quality supplier of high unit value fisheries products.

Australia’s fisheries and aquaculture industry is also highly exposed to trade, so trends in world markets and Australia’s exchange rate influence the price received for most of Australia’s major produced species. Export value is forecast to fall by 8% in 2019–20 reflecting the effects of COVID-19. Exports are forecast to rise by 23% in 2020–21 following the assumed normalisation in export markets. The value of Australia’s fishery exports is projected to rise by 2.6% in real terms between 2021–22 and 2024–25 to $1.66 billion. Growing incomes and populations are the key drivers behind the growth in export value. Over the outlook period, movements in world prices will be a major determinant of export unit values.

**Australian fisheries export value, 1999–2000 to 2024–25**

![Graph showing fisheries export value trends](image-url)
Outlook for key species

Rock lobster demand impacted in short term

The COVID-19 outbreak is anticipated to reduce export demand and beach price for rock lobster in the short term. Rock lobster is typically exported as a high unit value live product. In 2018–19 China was the destination for approximately 94% of Australia’s $752 million of rock lobster exports. The outbreak of COVID-19 is expected to have a significant impact on the rock lobster industry in the short term as a result of reduced demand and limited opportunities for alternative markets.

Over the medium term the value of rock lobster production is projected to rise. Australia’s major rock lobster fisheries are output controlled through total allowable catches and production volumes are assumed to increase only moderately. Growth in the value of Australian rock lobster production value is projected to be driven largely by higher export unit values.

Global lobster supply is expected to be constrained by limitations on the volume of wild-catch and relatively small global aquaculture production. This will tend to result in price increases in response to higher global demand because supply may not be able to proportionately respond to increased demand.

Assuming normalisation of market conditions in the medium term, import demand from Asia, particularly from a growing middle class in China, is anticipated to increase over the medium term. However, competition from Canadian exporters is expected to limit upside price potential. Over the projection period, the value of lobster exports from Canada is projected to remain high and will continue to compete with Australian rock lobster exports to China (Fisheries and Oceans Canada 2018).

Salmonids

Global aquaculture salmonid production (including salmons, trouts and smelts) increased significantly between 1990 and 2017. Global aquaculture salmonid production exceeded wild-catch production in 1996 and contributed 78% of global salmonid supply by 2017. Norway and Chile are the largest producers of salmonids (predominantly of Atlantic salmon), together contributing 48% of global salmonid aquaculture production in 2017. Global salmonid production
increased by 5% in 2017 to 4.5 million tonnes, of which 3.5 million tonnes was from aquaculture (FAO 2020).

Despite strong growth, the aquaculture sector has periodically been affected by disease outbreaks and algal blooms. These outbreaks have often increased production costs, reduced production and contributed to price volatility in the sector. These factors contribute some uncertainty to the outlook. Over the outlook period, environmental constraints are anticipated to slow the global production growth rate of Atlantic salmon. Producers may look for opportunities to increase production through expansion and research and development (Mowi 2019).

**Global salmonid production by sector, 1990 to 2017**

![Graph](image)

Source: FAO 2020

The COVID-19 outbreak is expected to result in a reduction of exports to China, leaving global producers in search of new export market opportunities for the remainder of 2019–20. This reduction in demand is expected to reduce global prices in 2019–20. Global prices are assumed to recover to their pre-outbreak levels by 2020–21, then steadily increase over the remainder of the outlook period in line with growing global demand for salmonid products in emerging markets.

Trends that impact markets, such as consumer demand for sustainability and traceability of fish products, are likely to continue driving policy and innovation in the salmonid aquaculture sector (FAO 2019). Increasing production of other salmonid species, such as trout and coho salmon, and the emergence of new export destinations are also expected to provide opportunities.

Australia is a relatively small producer and exporter of farmed Atlantic salmon. Tasmania is Australia’s primary producer, contributing around 98% of Australia’s salmonid production in 2017–18. Rapid growth of the Tasmanian industry since the early 1990s has been underpinned by successful marketing campaigns promoting domestic consumption of salmonid products. Production is expected to remain at around 60 thousand tonnes between 2018–19 and 2020–21, and then projected to increase by 3% per year for the remainder of the outlook period to reach 69 thousand tonnes by 2024–25. Production increases over the period will be supported by expansions into new lease areas and further research and development (Breen 2019).

Australian imports of salmonids amounted to 14,468 tonnes in 2018–19, contributing around 25% of domestic salmonid consumption. Imports of salmonids over the outlook period are projected to grow steadily to fill the gap between domestic production and consumption. Export levels are expected to be maintained over the outlook period.

**Abalone**

World abalone production more than quadrupled between 2007 and 2017, increasing from 41,375 tonnes in 2007 to 174,633 tonnes in 2017 (FAO 2020). Despite this strong growth, global wild-caught
abalone production fell from 9,542 tonnes to 6,341 tonnes in the same period, driven partly by declining global wild-catch stocks and restrictive quotas (Cook 2016; FAO 2020). The increase in aquaculture abalone has mainly been from China.

World abalone production, 1990 to 2017

![Graph showing world abalone production, 1990 to 2017](source: FAO 2020)

Australia produces predominantly wild-caught abalone, but aquaculture is projected to provide most of the projected growth over the medium term. Wild-caught volumes are expected to remain constrained by conservatively set total allowable catch. The value of Australian abalone production is projected to rise by 5% to $200 million (in 2019–20 dollars) over the period 2020–21 to 2024–25. The share of aquaculture abalone production has increased steadily over the period 2000–01 to 2017–18, from negligible levels to reach 22% by the end of the period.

Australian abalone unit export prices have increased over recent years and in 2018–19 were the highest on average in real terms since 2006–07. This reflects growing demand in China and a reduction in tariffs to that market. Tariffs on Australian abalone exports entering China have decreased annually since the China–Australia Free Trade Agreement came into force in late 2015. Since 2019 Australian abalone exports have entered China duty-free. Australia produces species of abalone that are not produced in China and wild-caught product achieves a premium in China, especially if delivered as live product.

The outbreak of COVID-19 in China is expected to have negative effects on prices for the remainder of the 2019–20 financial year. The virus has led to the cancellation of orders for abalone in early 2020. When markets will resume normal operation is unclear. Increased export competition is expected as trade is diverted from China to alternative markets. Prices are assumed to recover over the remainder of the outlook period.

Australian abalone production, 2000–01 to 2024–25

![Graph showing Australian abalone production, 2000–01 to 2024–25](Source: ABARES)

f ABARES forecast. z ABARES projection. Source: ABARES
**Tuna**

The Australian tuna industry is highly export oriented. Australian exporters compete in the premium export tuna market (bluefin tuna, bigeye tuna and yellowfin tuna). Southern bluefin tuna is the major tuna species produced in Australia and accounts for most tuna production value, largely because of ranching of wild-caught southern bluefin tuna in South Australia.

Japan is the major destination for Australian tuna exports, reflecting its status as the world’s largest consumer of sashimi grade tuna. Premium tuna consumption (for products such as sushi and sashimi) in Japan has declined, reflecting several factors such as changes in consumer preferences. Japan's share of global bluefin tuna import value has also fallen as the trade has diversified to other markets (FAO 2016, 2019). However, although Japanese imports of bluefin tuna have declined over the past decade, Japan remains by far the largest importer of bluefin tuna. As such Japan remains the primary market for global whole bluefin tuna and has a major influence on world prices. Since 2012 global import prices have generally declined as the supply of bluefin tuna has increased (FAO 2020).

**World bluefin tuna production, 1990 to 2017**

![Graph showing world bluefin tuna production from 1990 to 2017](Image)

Source: FAO

Over the projection period, global supply of bluefin tuna is anticipated to increase as stocks recover and the aquaculture industry expands (Campling, Antony & McCoy 2017). In addition to anticipated increases in global supply, declining demand from Japan and shifts away from the traditional wholesale model (as a result of consumer demand shifting towards lower cost frozen fillets of sashimi tuna) are expected to place downwards pressure on high-grade tuna prices (Campling, Antony & McCoy 2017). Together with the assumption that the Japanese yen will slightly depreciate against the Australian dollar, export prices are projected to fall in real terms over the medium term. Relatively low export prices to the farm gate for aquaculture producers could result in the share of long line catch of southern bluefin tuna remaining relatively high over the projection period.

Alternative markets for high value tuna, such as the Republic of Korea and the United States, have experienced some growth. Continued growth in these markets could absorb some of the impact from declining demand from Japan and increased global production. Unlike
for rock lobster, abalone and salmon, China has not been a significant market for high-grade tuna.

**Prawns**

Australia is a relatively minor producer of prawns, but supplies and exports several high unit value species. Australia also imports a significant quantity of prawns to meet domestic consumption. These imports are generally of a lower unit value than domestic prawns.

The outbreak of COVID-19 in China in early 2020 is expected to negatively affect international demand for prawns and result in global prices falling in 2019–20. This is expected to impact local producers. Over the remainder of the outlook period, the value of prawn production in Australia is projected to rise, largely reflecting an increase in aquaculture prawn production. Most Australian prawn production is wild-caught, but the share of aquaculture-produced prawns is increasing. A planned large-scale prawn farm in northern Queensland is expected to add between 2,000 and 2,500 tonnes to aquaculture output over the outlook period. Another project in the Northern Territory could significantly increase aquaculture prawn production beyond projections if the farm becomes operational over the outlook period.

**Potential impact of COVID-19 outbreak on Australian fisheries exports**

The outbreak of COVID-19 is expected to reduce demand for Australian fisheries product exports to China. China is the major export destination for Australian seafood products and accounted for 58% of Australia’s total fisheries product export value in 2018–19. In that year Australia’s fisheries product exports to China peaked around the Lunar New Year period. The outbreak of COVID-19 during this period in 2019–20 is expected to have significant short-term impacts on fisheries exports.

Australian fisheries product exports to China are concentrated in three product groups. In 2018–19 rock lobster, abalone and salmonids accounted for 97% of all fisheries product exports to China.
For a number of reasons, the COVID-19 outbreak could be more disruptive to seafood trade than the 2003 SARS outbreak. The 2003 SARS outbreak largely occurred during the second half of the 2002–03 financial year. Compared with 2018–19, the Australian export market for fisheries products was overall less concentrated and overall value of exports less dependent on a single commodity. In 2001–02 China accounted for just 3% of export value compared with 58% in 2018–19.

The value of Australian fisheries product exports declined by 12% in 2002–03. However, the effect of the 2003 SARS outbreak on the value of Australian fisheries product exports is uncertain because the Australian dollar appreciated strongly against the US dollar (12%) and the Japanese yen (6%) that year. An appreciation of the Australian dollar tends to reduce export prices in Australian dollar terms.

The impact of COVID-19 on Australian seafood exports depends on the extent and duration of the outbreak as well as the effectiveness of control measures. Export prices are expected to fall in response to reduced demand and limited alternative markets for some commodities. In addition to the effect of direct exports to China, alternative markets for fisheries products are expected to be exposed to more competition as a result of redirected trade, further placing downward pressure on the price of these commodities.

Rock lobster, tuna, abalone, prawns and salmonids accounted for 85% of total fisheries export value in 2018–19. The impact on these commodities depends on a number of factors, including dependence on export markets, the major export destinations and the level of market concentration. For example, rock lobster is highly export dependent, highly concentrated and China is the major market. In 2018–19 China was the destination for approximately 94% of the $752 million of rock lobster exported that year. For this reason, the price impacts of the COVID-19 outbreak are expected to be most significant for this commodity.

Prawns and salmonids have relatively lower export dependence and have lower market concentration compared with rock lobster. China was the major export destination for salmonids accounting for 62% of exports in 2018–19. China accounted for 8% of Australian prawn export value in 2018–19. Despite salmonids relatively high share of exports to China, overall low export dependence means this product is expected to be less impacted by the COVID-19 outbreak than rock lobster.
Export market concentration of major fisheries products, 2018-19

Source: ABARES
Note: In 2018–19 China was the largest export market for rock lobster, abalone and salmonids. Export value greater than 100% could be the result of timing of exports and value added activities (such as processing and transport costs) that increase the value of product from the beach to port. Market concentration index is measured by the Herfindahl-Hirschman Index.

References


Fisheries and Oceans Canada 2018, *Outlook to 2027 for Canadian fish and seafood*, Economic Analysis and Statistics Directorate, Fisheries and Oceans Canada, Ottowa, Canada.