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Asia's Fast-Moving Cheese Markets

Australia's Race to win

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Summary

- The cheese and whey stream is an essential driver of supply chain returns for the Australian dairy sector.
- Australia has an accelerating geographic exposure to Asian cheese markets following a period of processing investments in search of higher growth and healthier margins.
- Cheese import volumes to China and South-East Asia will continue to expand over the medium term (in the next five years), underpinned by strong demand growth in the quick-service restaurant sector and limited local production.
- Australia is well-placed to be an integral part of global quick-service restaurant supply chains.
- However, the competitive environment is rapidly changing as other exporters also look to expand their presence in the region.
- As the competitive environment intensifies, Australia must continue to play to its strengths if it is to succeed in Asian cheese markets in the long-term.
- The industry will need to continue to invest in extracting and maximising the whey stream.
- Australia must increase its milk supply and subsequently improve plant utilisation of its cheese assets to fully capture the return on investments.
- Australia's pivot towards the Asian cheese markets has implications for the availability of milk components for the local supply chain in the form of a scarcity of milkfat.

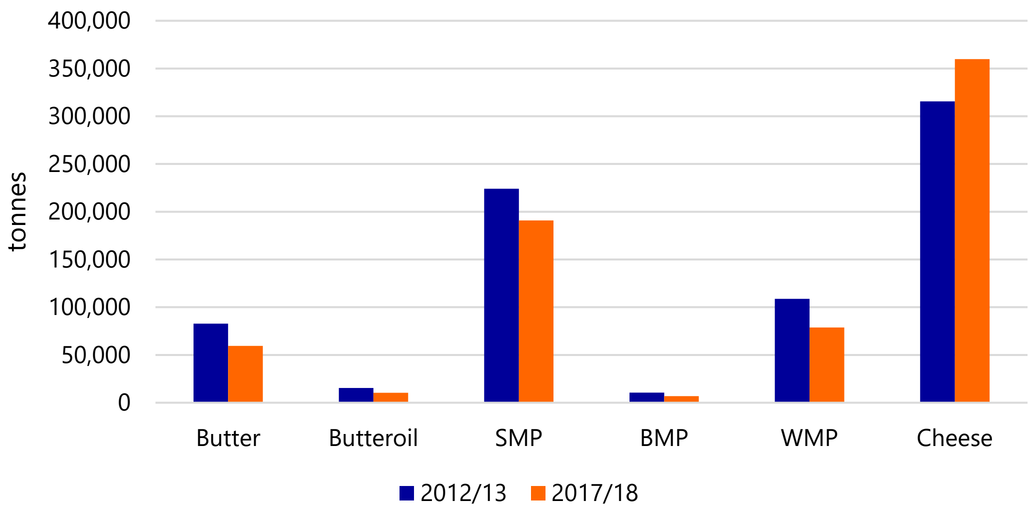
Australia's growing commitment to cheese

The cheese and whey stream has long been an important piece of Australia's dairy product mix. In 2017/18, Australia produced more than of 340,000 tonnes of cheese, accounting for close to 40 percent of total annual dairy commodity production. Over the previous few seasons, cheese-making has been a priority for Australian dairy companies in the face of lower milk production and supply chain disruptions (*see Figure 1*). In that period, the production of mozzarella and pizza cheese varieties has expanded the fastest.

Over the medium term, the profile of Australia's product mix will likely continue to gravitate towards the cheese stream as new processing capacity is commissioned and the tight supply of milk components is prioritised for cheese and whey streams.

Given the limited supply and the bias towards cheese production, efficient supply chains are essential for maximising the returns from available milk components. The immediate implications are that current milk-pricing structures may need to change to incentivise growth, balanced with the challenge of a seasonal milk supply curve.

Figure 1: Australia commodity profile mix, annual production, 2012/13 versus 2017/18



Source: Dairy Australia, Rabobank, 2018

More cheese (processing capacity) please!

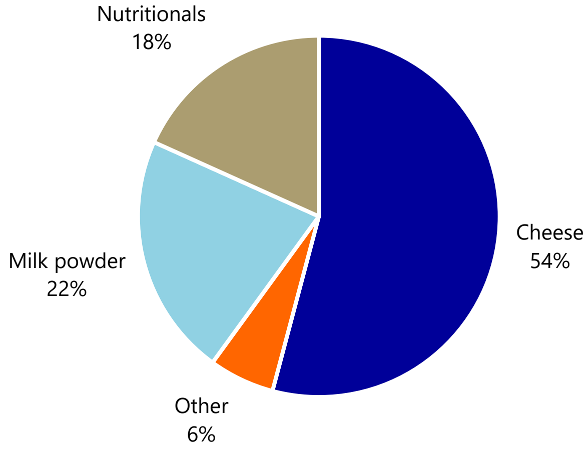
The Australian processing sector has seen the amount of capital invested in cheese capacity increase in the past few years following a number of major cheese plant upgrades and new builds.

Since 2015, Australian dairy companies have invested close to AUD 500m (or 60 percent of total capital expenditure announced in Australia through the period to 2018) in cheese plants (*see Figure 2*).

These major investments have increased cheese production capacity to further pursue exports. Recent investments in local cheese production include:

- Murray Goulburn (now Saputo Dairy Australia) upgraded the Cobram cheese plant at a cost of AUD 91m to increase output and capability in consumer and foodservice cheese applications. The plant now has an annual cheese production capacity of 60,000 tonnes.
- Fonterra Australia's phase-two expansion (following the initial rebuild) of Stanhope will increase cheese (and whey) production by a further 35,000 tonnes to 80,000 tonnes, respectively. The total spend was AUD 265m.
- Fonterra is also upgrading its Wynard cheese plant in Tasmania for AUD 12m to improve annual production capacity by 4,000 tonnes.
- Beston Global Food Company has invested in mozzarella production at Jervois, South Australia. The AUD 26.5m initial investment is in mozzarella capacity (of 16,000 tonnes).
- Bega Cheese has transferred milk supply from cheddar towards mozzarella and cream cheese production, increasing output by 30 percent in recent years. A further potential investment in mozzarella production is earmarked at the newly acquired Koroit facility.
- In 2017, Saputo completed a cheese and whey plant upgrade (AUD 40m) at its Allansford facility, which added another 25,000 tonnes of cheese capacity.
- Brownes is restarting its cheese plant at Brunswick, on the back of an AUD 10m investment to boost cheese and whey production with a focus on the China market.

Figure 2: Processing investment in new capacity as a percentage of AUD spend, 2015-mid-2018



Source: Rabobank, 2018

A substantial milestone for Chinese imports

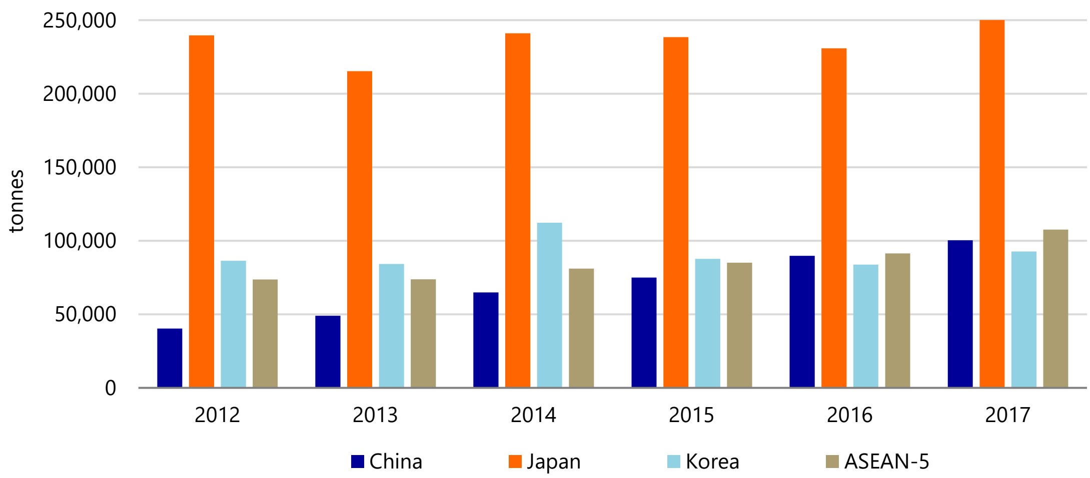
The lure of trade opportunities is strong for Australian cheese exporters. Chinese cheese imports have grown rapidly in the past decade. According to trade statistics, annual global cheese exports to China surpassed 100,000 tonnes for the first time in 2017 and notched up an annual import growth rate of more than 20 percent between 2012 and 2017.

Meanwhile, annual cheese exports to the ASEAN-5[1] also surpassed the 100,000-tonne mark in 2017, expanding by an annual average rate of 10 percent over the same period.

North Asian markets are sizeable and, given the demographics of these economies, not surprisingly, import growth has been more modest, at an average annual rate of 2 percent. Together, Japan and Korea imported more than 340,000 tonnes of cheese, accounting for 60 percent of the total Asian cheese trade in 2017.

Collectively, cheese exports to China, ASEAN-5, Japan, and Korea, now exceed 570,000 tonnes annually, and they represent one of the largest cheese-importing regions (*see Figure 3*).

Figure 3: Annual import cheese volumes, 2012-2017



Source: Rabobank 2018

[1] ASEAN-5 countries include Indonesia, Malaysia, Thailand, the Philippines, and Vietnam

Growing appetite for pizza in Asia underpinning growth

Retail foodservice markets across the region are the main growth engine for cheese demand. In particular, quick-service restaurant (QSR) chains are rapidly expanding store footprints and penetration in Asia. Much of this is due to the unprecedented rise in the popularity of pizza (mozzarella) and burgers (processed cheese) within the foodservice channel.

Looking forward, regional growth plans by international QSR chains coupled with new stores from local QSR brands underpin the growth. For example, McDonalds opened 300 new stores in China in 2017 and is expecting to double the number of stores in China in a five-year period, eventually surpassing Japan, which currently has more than 2,800 stores.

But it doesn't end there. A growing bakery channel in these economies is driving demand for cream cheese destined for consumption in baked goods such as cheesecakes. Likewise, increased demand for processed cheese in the foodservice channel has fuelled cheddar cheese imports, the dominant cheese variety used to manufacture processed cheese.

A robust growth outlook for cheese consumption

Cheese is not a part of the traditional Asian diet. By global standards, Asian per-capita consumption of cheese is low, with plenty of headroom for growth. Based on solid fundamentals, growth in the Asian cheese markets over the next five years is not likely to slow. This is due to several overarching themes that are supportive of cheese demand in Asia over the medium-term:

- Underlying population growth and the expanding middle class
- The rise of young consumers and their desire for convenience
- Population density underpinned by a structural shift from rural to urban dwellings
- Industry investment in educating consumers on the nutritional benefits of cheese
- Further expansion of QSRs driven by new restaurant openings, increasing traffic at existing locations.
- New consumer trends (e.g. Chinese cheese tea)

But growth is not limitless

While the headroom for growth is strong, some level of caution is required when assessing the growth potential. A sizeable slice of the demand over the forecast period depends on the expansion and penetration of pizza consumption. However, there have been signals from QSR chains that expansion plans across some economies have failed to meet previous expectations due to macroeconomic headwinds and inflationary pressures (wages and commodities), which have squeezed restaurant margins.

Hence, there are downside risks to growth expectations that might be disruptive to forecast Asian imported cheese demand. The key factors that could reduce import growth expectations over the medium-term are:

- A slowdown in economic growth and/or rising cost-of-living pressures, which subsequently reduce discretionary spending and the desire to eat out
- Government support to improve the competitiveness of domestic cheese production
- Slower-than-expected QSR store penetration and reach into new cities
- Rise in popularity of vegan products including vegan pizza
- Price pressures to support the use of cheaper alternatives such as analogue cheese
- Trade barriers, which may dilute the competitiveness of imported cheese
- QSR sectors in Asia being highly fragmented and industry consolidation potentially being disruptive

There are some pressing headwinds arising from the trade war between China and the US and the potential subsequent deterioration of the Chinese economy due in part to currency devaluation.

China will be approaching 200,000 tonnes in 2023

Nonetheless, China will be an engine of growth for greater Australian cheese exports. Based on Rabobank forecasts, China's annual cheese import volumes will be nearing 200,000 tonnes by 2023.

When combined with Rabobank forecasts for cheese exports to Chinese, ASEAN-5, Japanese, and South-Korean cheese markets, these economies will collectively import more than 700,000 tonnes of cheese annually, 150,000 tonnes above 2017 levels.

Push-and-pull factors stimulating exports to Asia

There are some critical drivers at play which have seen the local industry pivot more towards Asian cheese markets in preference over local market opportunities or alternative product streams.

Pull factors

In addition to growing demand locally, there is limited domestic cheese production across much of Asia. Local reprocessing, cutting, and packing will be essential parts of the supply chain, but the growth prospects for local natural cheese production will be limited due to an inadequate local milk supply and the price competitiveness of imported cheese.

Local consumers prefer imported processed cheese. Domestic cheese production in some Asian economies is growing, supported by investment, but often, consumers and end users still prefer imported cheese.

Improving market access for exporters. The beneficial trade agreements are improving access and competitiveness for exporters, which is gradually reshaping trade flows.

Push factors

Mature and competitive domestic markets. Growth in Australia's local cheese market stagnated as per-capita cheese consumption continues to mature. In addition, competition to supply domestic retail and foodservice markets is intense, and reduced retail and foodservice margins have prompted companies to look at markets with better returns.

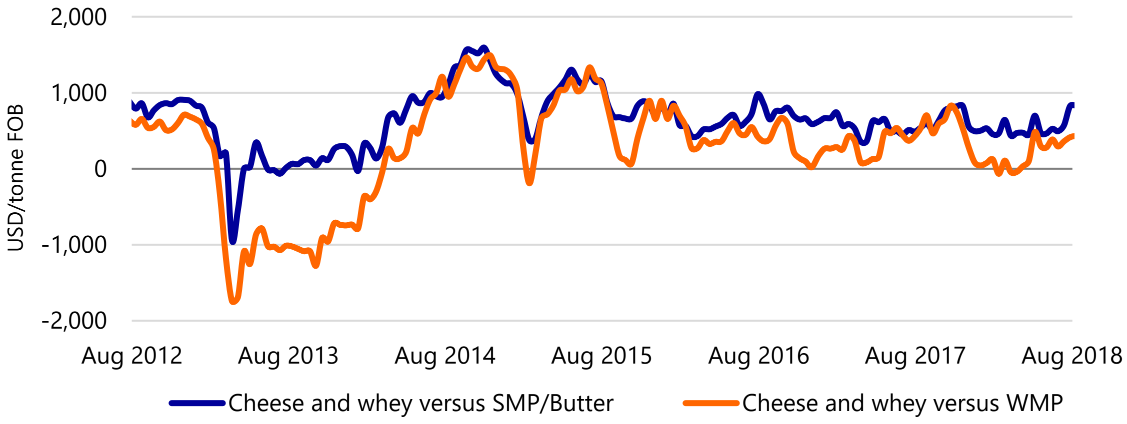
Manufacturing cost reductions. Producing mozzarella cheese as opposed to cheddar cheese reduces warehousing costs as less stock maturation is needed. There is technology which reduces the processing time and lowers the manufacturing costs associated with maturation and cold storage.

Less volatile and higher average stream-returns versus other commodities. Between 2012 and 2018, average export returns for cheese and whey as a stream have on average outperformed other major product streams (*see Figure 4)*. Higher returns from cheese and whey have been bolstered by skim-milk-powder imbalances in global dairy markets acting as a headwind for dairy protein prices.

Corporate ownership changes are driving the search for stable earnings

The changes in ownership structures of the Australian processing sector have played a role in the shift towards the cheese and whey stream. Publicly listed companies (local and international) control the lion's share of Australia's processing assets (and subsequently the milk pool), and the shareholder pressure to stabilise earnings has underpinned this strategy to move away from more volatile milk powder commodities.

Figure 4: Indicative monthly cheese- and whey-processing returns, August 2012-August 2018



Source: USDA, Rabobank 2018

Export competition is accelerating

Australia is competing with peers that have a much larger production base and export potential. Driven by similar push-and-pull factors, leading cheese manufacturers are also investing in production capacity geared towards capturing the Asian export market opportunities.

There is already evidence of increasing market competition and there are early signs of weaker margins. Competition is set to intensify further as new processing capacity comes online over the upcoming three years on both the Southern and Northern Hemispheres, which will potentially be more than sufficient to service the Asian markets.

New Zealand has first-mover advantage

New Zealand has set the pace in terms of growing cheese exports to Asia, supported by preferential tariff access. In New Zealand, Fonterra proudly states that more than half of all pizzas made in China contain cheese of New Zealand origin. Historical data shows the strength of the growth story. New Zealand cheese exports expanded at more than 30 percent per annum between 2012 and 2017, capturing over 50 percent of the Chinese cheese import market.

To support the strategy, Fonterra has completed a major investment in their Clandeboyne cheese plant with a third line now in operation. In total, NZD 240m was invested to double the site's production of mozzarella, making it the largest mozzarella plant in the Southern Hemisphere. The plant uses patented technology which allows rapid production of individually quick frozen (IQF) mozzarella.

This is in addition to investment at Te Rapa and Darfield plants to boost cream cheese capacity for export to meet demand for bakery goods with a key focus on China.

But the Northern Hemisphere is also gearing up

A number of export peers in the Northern Hemisphere have expanded cheese production capacity to absorb an oversupply of milk and with an eye on growing exports, including those to Asia. Better returns from cheese and whey have favoured investments over powder plants.

The European and US economies continue to perform strongly, which is underpinning local consumer retail and foodservice markets. Cheese consumption is a beneficiary of this – but domestic markets are mature.

Local and regional market opportunities will be a focus for some of the new cheese capacity, but – once built – the new additions will have capabilities to service Asian markets, should market dynamics warrant it. As a result, the new capacity looms as a major competitive threat to Australia.

The EU and US cheese industries are blessed with sizeable and growing milk pools, significant cheese production capacity and declining fluid consumption rates, which, together with the closing of liquid milk plants, results in more milk available for manufacturing.

Many of these competitors also have an advantage in operating large-scale plants at high utilisation rates. And – just as important – they often have significant financial resources for investment.

A major shift in global cheese trade began in 2014 when the Russian government implemented a ban on various Western food imports, including cheese. At the time, Russia was the largest cheese importer of nearly 350,000 tonnes of cheese, largely served by the EU. In the aftermath of the trade ban, EU cheese manufacturers and exporters acquired new markets, in part due to greater access from trade agreements. The EU is on track to export over 840,000 tonnes of cheese in 2018, up from 720,000 tonnes in 2014, according to USDA.

There is no end in sight to the Russian embargo. In July 2018, Russian president Vladimir Putin signed a decree extending counter-sanctions against the EU and other countries until 31 December 2019.

Market access is reshaping trade in the region

Free trade agreements (FTAs) have helped liberalise cheese markets and will continue to reshape trade flows. For example, the US-South Korea FTA eliminated nearly all South-Korean tariffs on America's dairy exports, which has fuelled trade. South Korea is now the second-largest buyer of US cheese after Mexico.

In the case of Europe, cheese exporters have had to adjust strategies and seek new markets to mitigate the fallout from reduced access to traditional exports markets, such as Russia, due to the dairy embargo.

Meanwhile, Irish dairy exporters have been eager to build new export markets in fear of the fallout of Brexit and potential loss of access to their most important cheese market – the United Kingdom..

In December 2017, the EU-Japan Economic Partnership (EPA) was concluded which, once implemented, will be one of the world's largest trade deals. This agreement has been dubbed the 'cars for cheese' deal and will see Japanese import duties on a range of cheeses reduced and a duty-free quota established for fresh cheeses (including mozzarella).

As part of a bilateral trade agreement with the EU, trading partners are designating geographical indication restrictions on several cheese varieties, which may be a significant barrier to Australian cheese exports.

In recent years, there have been some sizeable investments in large-scale cheese plants in both the US and Europe. Key investments include:

US cheese investments

- Associated Milk Producers (AMPI) expanded two of its cheese plants in 2017.
- Hilmar Cheese from Dalhart, Texas expanded its plant in 2017.
- Southwest Cheese[2] (SWC) completed a USD 140m expansion in New Mexico in Q2 2018.
- Glanbia, Dairy Farmers of America (DFA) and Select Milk Producers have finalised a JV partnership to build a large-scale cheese and whey production facility in Michigan.
- Agropur is expanding its South Dakota cheese plant with a USD 250m investment due to be completed in 2019.

[2] SWC is a 50:50 JV between Glanbia and various US dairy cooperatives.

European cheese investments

- DMK, in cooperation with Arla, is investing in its Nordhackstedt site to fully focus on mozzarella production.
- Arla is investing EUR 13m in its Rødkærsbro plant to expand the site's production of mozzarella for the international pizza industry. The company is targeting 50 percent of growth in cheese sales to come from international foodservice markets.
- Arla is cooperating with Mengniu in China, to deliver approximately 13,000 tonnes of mozzarella from 2019 onwards.
- Dairy Crest is investing USD 114m in its Davidstow cheese plant with a focus on international demand.
- In July 2018, Glanbia Cheese unveiled plans for a third 50:50 joint venture (with Leprino Foods) to build a EUR 130m mozzarella cheese plant in Ireland. The plant is expected to begin production in 2020 with a focus on local foodservice channels.
- Dutch-based A-Ware in partnership with Fonterra, is building a new mozzarella plant in Heerenveen.

Trade war uncertainty is adding a layer of complexity

Recent US trade issues with NAFTA members and China have weighed on the US cheese sector. Mexico is the largest cheese export market for the US and has been impacted by the tariff escalation. The renegotiation of an agreement is expected to ease trade tensions.

However, US cheese exporters looked set to benefit from a game-changing decision by China in 2017 to reduce tariffs on US cheese in line with those of global peers. However, recent trade tensions between China and the US have resulted in additional tariffs on US cheese, putting US exporters at a competitive disadvantage.

A potential by-product of the escalating tensions between the US and China is the rising tide of Chinese consumers opting to eat at local QSR brands as a show of nationalism, which may dent offshore brands.

Australia has a lot riding on its ability to succeed in the Asian cheese markets

Australia has a solid platform

Australia will continue to have a strategic milk pool for procurement of cheese to service Asian markets because of it price competiveness and proximity to markets.

There is a way forward and as the competitive environment intensifies, Australia must continue to play to its strengths if it's to succeed on its industry-wide Asian strategy for cheese and whey-derived nutritionals.

Australia can play to its strengths by continuing to establish itself as an alternative supplier to other regions as well as a reliable supplier to customers demanding high-quality product with strong market support and development.

But there are glaring weaknesses

The industry does have some weaknesses and has no absolute competitive advantage, meaning Australian cheese exporters are vulnerable to increasing competition from alternative cheese exporters with improving market access, operating large-scale plants and having ample year-round milk pools.

The immediate challenge for the industry is to grow the Australian milk pool sufficiently to maximise existing assets, and to keep pace with market growth. Australia currently has excess dairy processing capacity, including idled capacity, with more capacity coming on stream.

Milk supply growth is a priority

The last few years have seen a drop in milk production and product availability, combined with a significant amount of corporate activity, which has caused buyers some angst and uncertainty.

Nevertheless, there are two key reasons for growing the Australian milk supply.

Firstly, lifting milk production and plant utilisation will drive synergies and profitability in the supply chain. There is currently insufficient milk in the system, which may jeopardise the return on these cheese-processing investments. While milk can be diverted into cheese and whey processing at the expense of other streams, this is a risky strategy, as the global market cycles out of the weak price environment of skim milk powder.

Secondly, Australia simply needs to sustainably grow milk supply over the medium term if it is to inspire confidence in international buyers that it can be a long-term and consistent partner as well as supplier and can reduce the volatility of supply.

Australia's biggest weakness is that a sustained recovery of milk production, though possible, is faced with hard constraints and seasonal impediments, so over the medium-term Rabobank is forecasting a modest milk-supply growth.

Having a flexible and low-risk export model

It is important to have a diverse customer base in domestic and export markets but also across channels such as foodservice, industrial, and retail.

The local retail and foodservice cheese market will be strategically important and provide a solid platform with modest room for growth. However, the market remains highly competitive and margins are under pressure. Based on ongoing population growth and modest lifts in per capita consumption, the total Australian domestic cheese market will expand by 35,000 tonnes by 2023.

Australian exports are highly concentrated in Asia, so the industry will need to balance each key market with the appropriate marketing and technical support.

China is a long-term play with significant scope for growth. But the Japanese and South Korean markets are still growing, albeit at slower rates. But combined, these markets account for 60 percent of trade, and it is important not to underinvest here, particularly because these markets are becoming more open.

It is equally as important to not forget ASEAN-5 cheese markets, which will provide strong demand and trade opportunities. Looking further afield, there will be opportunities to ride the QSR expansion wave into other priority markets including the Middle East and potentially India.

Part of this involves the need to preserve market access as this is vital to ensuring that Australian dairy companies remain competitive dairy exporters.

More importantly, Australia's processing industry will require more considered and balanced investments over the medium term and should require appropriate investment in processing capacity outside of cheese and whey.

Tailoring products

Given Australia's small scale, the industry will need to focus on maintaining and growing market share in the high-end market segments. In many key markets, QSR operators are aiming to expand their product offering while also improving store formats and dining concepts. This will potentially provide scope for investment in dairy innovations and formulations with a focus on:

- The growing trend of premiumisation in the sector, which calls for high-quality ingredients
- Clean label initiatives
- Improving desirability (lighter taste and smell) and suitability to local cooking styles
- Improved functionality (melting and burning points)
- Nutritional demands (additive-free, sodium-reduced)
- Developing cheese-intensive snacks or cheese-flavoured snacks tailored to local consumers.

However, it is important to consider that a large portion of the growth in the QSR sector will come from the increased penetration of lower-tier cities with a population of around one million, whose inhabitants potentially have less purchasing power than those of first- and second-tier cities with populations in excess of 3m people.

There will be opportunities for cheese manufacturers to tailor products to different income classes and customer requirements. In addition, there will be opportunities for cheese companies to partner with local Chinese companies striving to broaden their own portfolios into the cheese category.

Maximising whey protein

Maximising the value of whey is often key to achieving the best returns from cheese and whey production versus other product streams. The industry will need to continue to invest in extracting and maximising the whey stream with a view to what investments in whey technology global peers are making and the implications of supply and demand balances.

The industry has invested heavily in processing whey ingredients into high-value nutritional and functional ingredients. Chinese infant milk formula (IMF) is an important market for Australian whey ingredients, which highlights the need to maintain market access, foster growth and manage the risks associated with a high level of exposure to the Chinese IMF market. Recent history is a reminder that regulations can change quickly and be disruptive.

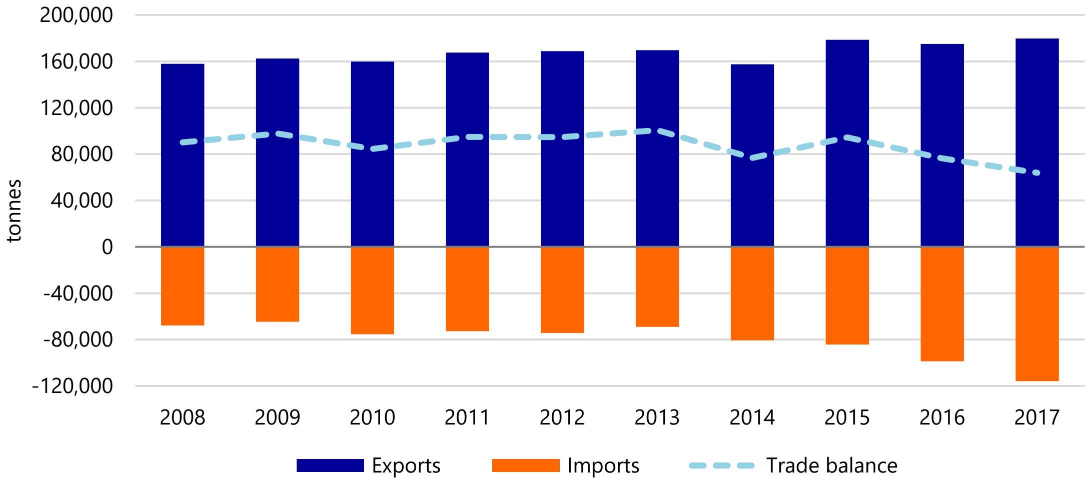
Managing with the balance of trade

Australia is a sizeable importer of cheese. A reduction in milk supply between 2014/15 and 2016/17 led to a shortage of milk components and fuelled a spike in import volumes of cheese and other ingredients. In 2017, Australian cheese imports also surpassed the 100,000-tonne milestone also.

Looking forward, a milk supply recovery (if sustained) will facilitate the displacement of import volumes, if commercially warranted. Competition to service local retail and foodservice contracts has eroded margins in recent years, but, should returns improve, this could provide local dairy companies with a more defensible strategy compared to volatile global markets and deliver more value back into the supply chain. Also, new country-of-origin labelling laws will mean consumers are more informed about product origin and may impact consumption patterns.

Nevertheless, cheese imports will remain a permanent feature of the local supply chain, requiring appropriate procurement and risk management strategies.

Figure 5: Australian annual cheese trade balance, 2008 - 2017



Source: Rabobank 2018

A final word

Cheese exports to Asia can be an engine of growth

The growing Asian cheese markets offer a compelling growth opportunity for the industry over the medium term. In key Asian markets, growing cheese demand will outpace local supply availability, fuelling solid growth in imported cheese volumes. This will provide scope for the Australian industry to grow exports to the region.

Australia will be short on milk components

Australia's pivot towards the Asian cheese market has implications for the long-term availability of milk components for the local supply chain – particularly milkfat. Dairy companies will continue to generate the maximum value from milk components. Servicing offshore markets with better growth prospects, and often better returns, will mean ongoing shortages of components in the domestic market. Based on the processing investment profiles and the milk supply outlook, Australia will be short of milkfat unless there is a fundamental deviation in demand or a major supply lift.

Imprint

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