

Dairy Market Insights

First Quarter 2022

1. Summary

Conflict adds to outlook uncertainty

- Dairy markets are experiencing complex and challenging times. Already tight supplies of milk for fat and protein commodities have been overlaid with complex supply and demand impacts of the Russian invasion of Ukraine and sanctions on Russia and its allies.
- Local dairy commodity markets will remain under the influence of tight EU export availability. Product and ingredient prices have been pushed to record highs in the EU and Oceania which will ration demand and may also eventually see some supply-side response. US markets are also managing tighter milk supplies while demand recovers from the effects of COVID restrictions, although supply chain challenges continue to drive some price volatility.
- While rising EU farmgate prices should provide an incentive for milk production growth, spiralling feed and operating costs, as well as limits on fertilizer will influence the supply response. In addition to margin pressures, the outlook for a hotter spring and summer isn't supportive of improved output growth.
- Increased food and energy costs flowing from Russia's war will increase energy and food costs globally, hampering economic recovery from the worst of the pandemic. While COVID is still raging in its third and fourth waves in most regions but (despite varied approaches to its management), is now being generally regarded as a nuisance fixture of society. However, it continues to disrupt food channel demand and supply chain capacity. At least that's the case in wealthier, highly vaccinated countries.
- In China, the government has continued to build a financial war chest to fund stimulus measures and other spending – likely beyond the current measures to control COVID which are slowing activity. Restrictions enforced to limit the spread of COVID have weakened domestic demand and changed local milk use – pushing more milk into production of WMP.
- In New Zealand the current season milk price outlooks for Fonterra have a mid-range of NZ\$9.60kgMS, which Synlait matches. The outlook for the 2022/23 season per our analysis is NZ\$9.10kgMS, assuming NZ\$1=US69.5c, while Sept-2023 milk futures last traded at NZ\$9.61kgMS. Despite the positive price situation and outlook, increasing input costs and weather conditions are likely to dampen any supply response.

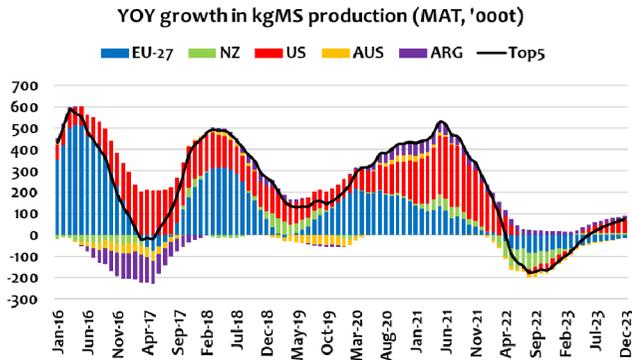
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What it means for Australian dairy farmers

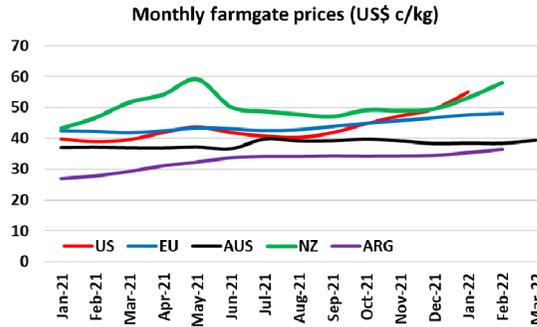
- The spot commodity milk value (CMV) increased by 19% since the end of December, reaching over A\$10.50kgMS by the end of March.
- Spot cheddar prices have continued to strengthen, adding another \$850/t since the end of December. Butter prices have risen even more adding US\$1,150/t over the same period. Milk powder prices have also risen, with SMP up US\$810/t over the March 2022 quarter while WMP added US\$500/t.
- The midpoint of our projected CMV for the 2022/23 season has lifted to A\$8.25/kgMS, based on the forward assumption for the US exchange rate of A\$ = US75.5c and the latest outlook for Oceania product fundamental values.
- As a result, we expect southern region manufacturers to offer full year farmgate prices in the range \$8.50 to \$9.00kgMS. The broad-based inflation impacting input costs for local processors as well as farmers has only been exacerbated by the conflict in Eastern Europe with energy and feed costs spiking and global fertilizer supplies affected. Despite the uncertainty affecting the outlook, opening offers are likely to be fully priced by early June, as competition for raw milk remains fierce.
- This suggests that despite record commodity prices, margins will be squeezed along the supply chain, affecting the ability of processors to pass on the full increase in top-line revenue and limiting any raw milk supply response. We expect Australian milk supply pool to further contract in 2022.
- To learn more about current 2021/22 season regional farmgate pricing, and track CMV movements visit the Milk Value Portal at milkvalue.com.au

2. Some key market indicators

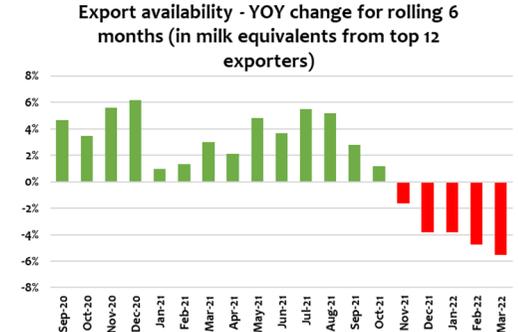
Top 5 exporter milk production will be weaker through 2022 before a small recovery



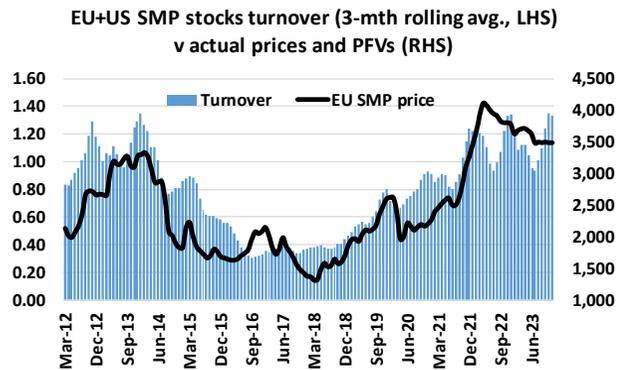
Farmgate milk prices aren't lifting fast enough to address financial pain for EU and US dairy farms



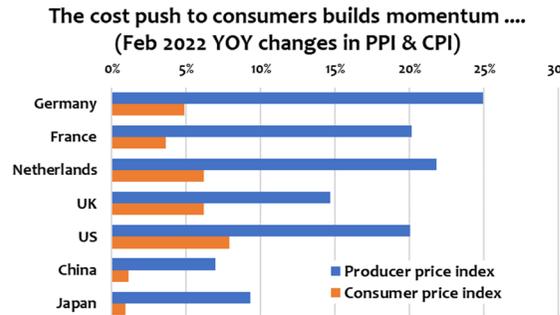
Less milk and sustained domestic demand has driven a significant decline in export availability



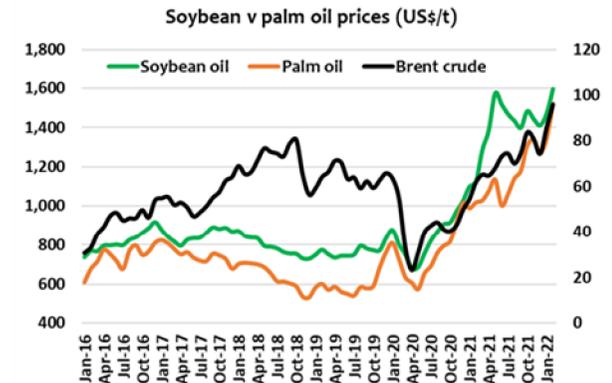
EU SMP and butter fundamentals (a faster stock-turn) have kept prices firming. Our projections show an easing in this tension



Increasing input and supply chain costs will reach consumers in coming months and start to eat into household spending



Crude oil prices have climbed further with the geopolitical situation and production constraints within OPEC limiting supply. Vegetable oil prices have lifted with the influence of crude but supply is limited by weather and Ukraine devastation



3. Global market drivers

The table summarises the critical variables affecting market fundamentals in the short to medium term.

Issue	Summary and importance	Analysis and impact
EU milk growth & product mix	<ul style="list-style-type: none"> Tight EU milk supplies will continue to strongly influence global fat and protein markets 	<ul style="list-style-type: none"> Elevated feed and fertilizer costs will limit spring output, with implications for the quantity and quality of late-season stored feed. Lower milk solids is likely to remain a risk with cost-avoidance. Processors will prioritise cheese with reduced milk availability, but butterfat demand is also strong with vegetable oil shortages.
EU domestic butterfat demand	<ul style="list-style-type: none"> Butter availability has been tight without growth in milk output or a weakening in cheese demand The reduced availability of vegetable oil is likely to last through 2022, but households may also reduce spending affecting cream usage 	<ul style="list-style-type: none"> Overall domestic EU domestic butterfat demand is likely to fall in response to elevated prices and reduced household spending
US milk recovery?	<ul style="list-style-type: none"> Weaker US milk output is adding to the tightness of SMP supplies Poor farm margins and water shortages are driving lower yields while a steady stream of exits will continue to limit growth in cow numbers. Improving margins may help yields but a steadying in cow numbers is not likely until H2-2022 	<ul style="list-style-type: none"> US milk supply will fall in the first half of 2022 with small growth by late 2022
US domestic cheese demand	<ul style="list-style-type: none"> Affecting US product mix and export competitiveness Improving food service demand will help with a recovery in cheese demand, but inflationary pressure may discourage some household spending on dining out 	<ul style="list-style-type: none"> US cheese demand is expected to fall in 2022 after strong growth 2021, affected by more cautious household spending
NZ milk supply through 2022	<ul style="list-style-type: none"> Availability of WMP is reduced with lower milk output and better alternate stream returns Rainfall will marginally improve the late season outcome. Producers will push spring output with the lure of a record milk price, but limits in staffing and rising production costs will counter that. Weather always holds the key. 	<ul style="list-style-type: none"> NZ milk output will contract for the 2021/22 season
Chinese & SE Asian milk powder demand	<ul style="list-style-type: none"> Resilience of demand at high prices on GDT has a strong influence on ingredient values WMP stocks-to-use have fell back to typical levels with improving consumption, and UHT milk use remains strong. SMP stocks appear ample in the short-term Demand for protein remains robust in most major markets despite high prices, but there is likely to be some pushback on high prices, especially in WMP 	<ul style="list-style-type: none"> Minimal growth in SMP and WMP demand
Veg oil supplies	<ul style="list-style-type: none"> Competing prices for fats, fat-filled and analogue products High vegetable oil prices based on sustained limits on availability 	<ul style="list-style-type: none"> Limits ability/incentive to substitute for butterfat

4. Commodity overview

	Considerations	Influences on fundamentals	Expected direction in 3-6 mths
SMP	<ul style="list-style-type: none"> Reducing EU availability, with declining milk output, producers prioritising cheese output Weaker regional US milk output limiting availability Persistent Asian demand Improved Mexican demand 	<ul style="list-style-type: none"> Downward pressure on EU milk supplies and SMP availability Buyers rushing to cover needs, fearing worse to come Weaker demand in price sensitive markets Shipping delays adding to risks of short-term US stock-build 	Following EU and US lifts with minimal premium over competitors 
Butter	<ul style="list-style-type: none"> EU butterfat supplies are extremely tight, given improving cream demand and the preference for cheese production Weaker Sth West US milk output limiting output Improving foodservice demand Persistent Chinese and SE Asia demand driving GDT signals 	<ul style="list-style-type: none"> Extreme shortages of vegetable oil Downward pressure on EU milk and butterfat supplies Higher butterfat prices meeting some buyer/consumer resistance Weakened demand in price sensitive markets 	Following EU lead, some pushback against higher prices 
Cheese	<ul style="list-style-type: none"> Persistent EU domestic demand Improving US foodservice demand Steady demand growth in developing markets Significant divergence in global cheddar prices US at a discount which should improve mozzarella and cheddar exports 	<ul style="list-style-type: none"> Rising fat and protein values Improved output in US cheese-rich regions, easing cheddar stocks Competition from low-priced US exports, although logistical barriers remain Risk of pushback against elevated prices 	Firm on EU lead, vulnerable to US exports, easing with pushback on high prices 
WMP	<ul style="list-style-type: none"> Weaker NZ milk production Reduced EU output Persistent Chinese demand, reducing stocks to use High vegetable oil prices keeping fat-filled powder prices firm 	<ul style="list-style-type: none"> Sustained large discount on fat and protein values Potentially lower NZ output with strong alternative milk uses Weaker demand in price sensitive markets Weak local Sth American demand 	Firm with tighter supplies, but vulnerable to weaker demand at elevated values 

5. Australian outlook

Critical issues

Milk production

- The steep drop of 6% in the first two months of 2022 (with some Victorian regions in double-digit decline) has created extreme shortages of milk for certain fresh products and will intensify competition for milk in coming months. We expect the 2021/22 season output to fall 3.1%, with the following season to decline 1.1%.
- The weather outlook is starting to dry out a bit. The 3-month outlook for Q2-2022 sees some below-average expectations creeping back into rainfall forecast maps. Latest outlooks indicate a return to neutral El Niño–Southern Oscillation (ENSO) levels—neither La Niña nor El Niño—late in the southern hemisphere autumn.
- While the weather outlook may not be definitive yet, local grain prices have meanwhile lifted in line with global trends.
- Milk growth will however remain weaker through H1-2022, under pressure from farm exits and record beef prices. It is expected that 2021/22 margins for southern regions will be weaker than the prior year with rising feed grain prices.
- Despite the expected higher milk prices in the next season, milk output will struggle to exceed the current season output with the loss of cows, shortages of labour and the attractive export heifer market to China.

Milk prices

- Milk prices for the 2021/22 season have moved higher with better commodity values and improved domestic certainty.
- At present there is a large gap between commodity milk value (CMV) and milk prices, reflecting little “loose” milk to take advantage of the recent surge in commodity prices, and the stickiness of retail prices for milk, cheese and spreads. Recent lifts in grocery prices may alleviate some of the pressure.
- There will be some late-season lift in milk prices which will push southern full year prices for major southern manufacturers to A\$7.30-7.50kgMS in 2021/22.
- Current indicative regional farmgate milk prices can be monitored at the [Milk Value Portal](#).

Outlook assumptions

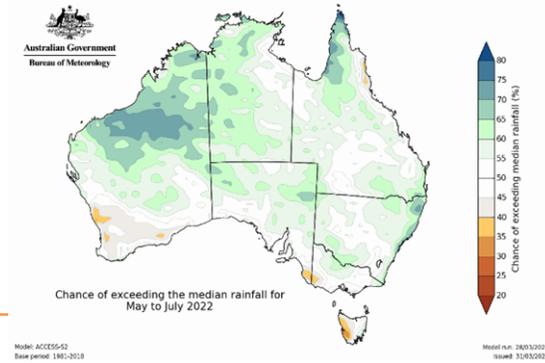
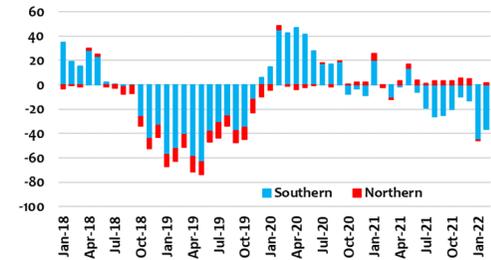
- We expect a small decline in milk production in H1-2022 on the same period in the prior year, but the fall could easily worsen if weather dries quicker than the outlook suggests.

AUS milk and product output ('000t)					
	Milk	Fats	Cheese	SMP	WMP
2020	8,688	55	367	181	33
2021	8,634	63	424	217	39
2022	8,407	73	416	213	47

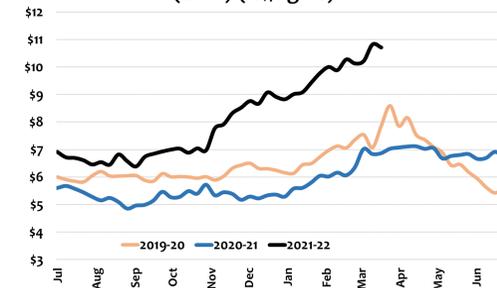
YOY % changes					
2021	-0.6%	15.3%	15.6%	19.6%	17.2%
1H-21	1.2%	25.1%	-3.1%	41.6%	37.4%
2H-21	-2.1%	9.0%	31.9%	8.3%	2.8%
2022	-2.6%	15.6%	-1.7%	-2.0%	19.7%
1H-22	-4.4%	12.6%	-2.1%	-3.0%	22.5%
2H-22	-1.1%	17.9%	-1.5%	-1.3%	17.1%

- We expect southern regions to be in a range of A\$8.50-9.00kgMS in 2022/23, given the strong outlook for the CMV and the sustained competition for milk.
- This is based on our estimate of a mid-point of A\$8.25kgMS full-year CMV for southern milk pools in 2022/23. This assumes A\$1=US75.5c on the Oceania PFVs used in this outlook, which also factors in a lift in conversion and distribution costs. The value of the A\$ has also lifted in response to rising mineral and metal commodity prices. This will limit the rise in commodity milk values.

YOY growth, Australian milk output (mn litres)



Australia Spot Commodity Milk Value (CMV) (A\$/kgms)



5. Australian outlook

Critical issues

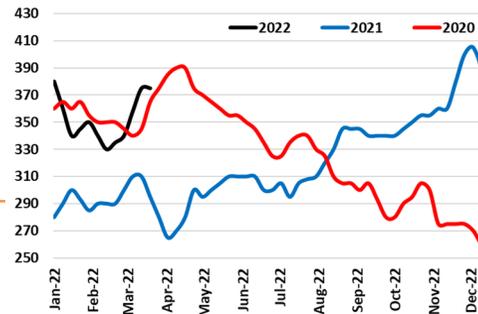
- Grocery sales growth has slowed with the return towards normalisation of sales between channels. The food service market has improved with reopening of those channels but the heavy caseloads of COVID in major cities will continue to affect staffing in many outlets.
- Recently released data reported a big jump in cheese output, while imports remain unchanged from the prior year. This came with reduced SMP output, yet SMP exports in recent months are up strongly. Data revisions are possible.
- Milk and cream supplies remain tight in wholesale markets with the stronger seasonal decline in milk and the growth in cheese production.
- It is estimated around 100 dairy farms have been impacted by flooding in northern NSW and southern Queensland with stock losses and infrastructure damage. With ongoing cattle health issues and feed shortages there are likely to be ongoing production impacts with the region.
- Lismore-based Norco also sustained significant damage to its ice cream factory.

Markets

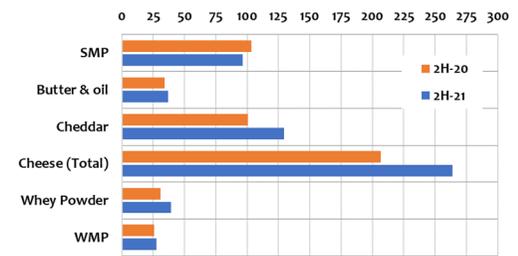
Outlook factors

- While the December to January Omicron wave affected supply chains, the emergence of the BA.2 variant is once again pushing case numbers higher.
- Easing isolation rules are causing less disruption in the short-term, but this could change if hospitalisations significantly increase.
- The Russian invasion of Ukraine and the subsequent disruption to energy and grain supplies are adding to inflationary pressures felt by farmers, processor and households alike.

Goulburn/Murray Valley wheat prices (\$/t)

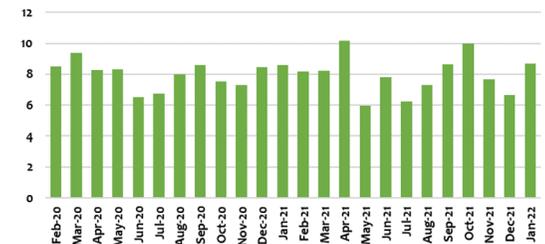


Australian dairy product output ('000t)



Source: Dairy Australia

Monthly shipments of cheese to Australia ('000t)



Glossary and explanation of key terms

Acronym		Explanation
AMF	Anhydrous Milk Fat	Removal of water from cream or butter yielding 99.8% milk fat product used in preparing reconstituted product and in food processing
CMV	Commodity Milk Value	The CMV calculation utilises actual or forecast spot prices for major commodities (SMP, WMP, cheese and butter) converted to local currency and the average industry product mix to generate revenue estimate. Direct conversion, overhead costs and allowance for profit retention to generate an estimate of returns available to the relevant milk pool. The CMV is used as a useful forward indicator of how the global market might affect the farmgate and is tracked weekly here .
EU-27	European Union	European trading bloc including 27 member states
FMP	Farmgate Milk Price	The average FMP that is paid by processors in the southern exporting region of Australia (including southern NSW, Victoria, Tasmania and South Australia) is made up of the underlying commodity value of milk (CMV) and a value-add or premium that depends on the product and market mix of each processor. This includes fresh and other retail dairy products as well as higher value specialised dairy ingredients.
FOB	Free on Board	A shipment term used to indicate whether the buyer or seller is liable for goods that are damaged or destroyed during shipping
LatAm	Latin America	Mainly focused on major dairy producing and importing countries Argentina, Uruguay and Brazil.
MENA	Middle East and North Africa	
MS	Milk Solids	The protein and fat content of milk which is the basis of payments from processors to farm suppliers. According to Australia in 2019/20 the average Australian litre of milk comprised 4.15gms of fat (4.15%) and 3.45gms of protein (3.45%) and therefore was 7.60gms of milk solids (7.6%).
NFDM	Non-Fat Dry Milk	Shelf-stable milk powder derived from the evaporation and spray drying of skimmed milk. NFDM is defined by the US Code of Federal Regulations and is similar in composition to the more widely produced and traded skimmed milk powder at 34% protein.
NZ	New Zealand	
OPEC	Organisation of the Petroleum Exporting Countries	OPEC is a permanent intergovernmental organization of 13 oil-exporting developing nations that coordinates and unifies the petroleum policies of its Member Countries.
PFV	Projected Fundamental Value	Freshagenda's forecast for the future value of commodities based on the expected market fundamentals of supply and demand
SMP	Skimmed Milk Powder	Shelf-stable milk powder derived from the evaporation and spray drying of skimmed milk. SMP is defined by the globally recognized Codex Alimentarius as comprising 34% protein and 1.5% milkfat.
US	United States of America	
WMP	Whole Milk Powder	Shelf-stable milk powder derived from the evaporation and spray drying of whole milk. SMP is defined by the globally recognized Codex Alimentarius as comprising 34% protein and a minimum 26% and less than 42% milkfat.