

NEW ZEALAND ECONOMICS

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NUMEROLOGY

FEATURE ARTICLE: FARM-GATE PRICE OUTLOOK

We take a detailed look at the key forces shaping the price outlook for New Zealand's major agricultural sectors. The dichotomy across key agricultural sectors is expected to continue in 2016/17. The operating environment still looks challenging for key livestock sectors despite some expected improvement for dairying. In the red meat and fibre sector knock-on impacts from the downturn in dairying will continue. Meat prices are mixed too, and a key factor supporting venison and sheepmeat is lower New Zealand supply – not the ideal driver of better prices. In contrast, the main horticultural crops are on track to post near-record export volumes and still achieve solid prices in most cases. This will support overall revenue and bottom-line returns.

RURAL PROPERTY MARKET

The REINZ's all-farm measure of property prices has held steady in 2015/16 versus the year before, whereas the dairy farm measure is back 14% y/y. Record-low interest rates, farm amalgamation, a continued focus on cost efficiencies and productivity initiatives, steady-to-strong (depending on sector) earnings and spillover from the housing/lifestyle market all continue to support prices. A lifting milk price will help dairy-aligned land, or at least mitigate the downside pressure that is still apparent given cashflow pressure. The RBNZ survey of credit conditions shows banks' lending criteria to the agri sector has tightened since the start of 2016. Until cashflow prospects look more sustainable, the buyer pool could be somewhat restricted to businesses with strong financial positions and track records of managing through the cycles in the milk price.

FINANCIAL MARKET VARIABLES

The NZD continues to hold up due to a range of supportive factors. We expect this will continue to be the case until the local growth profile starts to taper, and as interest rate differentials narrow.

BORROWING STRATEGY

Rural lending rates continue to fall, led by the long end. Given the tick-shaped yield curve, and only marginal differences between 2 to 5 year rates, it is worth considering fixing for longer to protect against an increase in borrowing costs.

ECONOMIC BACKDROP

The New Zealand economy is expanding at a rapid clip. Migration, housing and construction are at the epicentre. We forecast GDP growth in excess of 3% over the year ahead. At that pace, demand is outstripping supply.

EDUCATION CORNER: A NEW SHAREMILKING OPTION

The dairy industry needs to continue to attract new talent to provide business continuity, new ideas and drive business performance. Recent years have seen a decline in herd-owning sharemilkers. This makes the leap to farm ownership and succession of the family farm more difficult for many. To help overcome these issues Dairy NZ, MyFarm and Fed Farmers have developed a new model by which to split milk revenue under different milk prices. The split depends on what each party contributes in terms of farm costs covered; the amount and type of capital contributed; and the required return on capital for each. The model provides a more equitable split between farm owners and sharemilkers as the milk price changes. It is also tailored to a specific partnership and not a 'one size fits all' type of arrangement.

FEATURE ARTICLE: FARM-GATE PRICE OUTLOOK

AGRICULTURAL PRICE PREVIEW					
June Year End	2013/14	2014/15	2015/16p	2016/17f	% change
Dairy (\$ per kilogram of milksolid) after retentions					
Fonterra Milk Price	8.40	4.40	3.90	4.75-5.00	+25%
Dividend per share after retentions	0.10	0.25	0.40	0.40	Unchanged
Tatua	8.90	7.10	6.20	6.20	Unchanged
Westland	7.57	4.80	3.80	4.75-5.00	+28%
Open Country Dairy	8.40	4.61	3.94	4.75-5.00	+24%
Synlait	8.31	4.54	3.90	4.75-5.00	+25%
Wool (\$ per kilogram greasy, whole of clip net of costs)					
Fine (<24 micron)	10.35	9.30	9.70	9.50	-2%
Medium (25-31 micron)	5.55	5.70	7.40	6.00	-19%
Crossbred (>31 micron)	3.75	3.90	4.35	4.05	-7%
Sheep (\$ per head, weighted averages, GST exclusive and net levies at farm gate)					
Lamb (17.5 kg carcass)	96	91	89	90	+1%
Mutton (24.5 kg carcass)	74	66	63	65	+3%
Stores (LW 30-35 kg)	75-90	60-90	60-80	60-80	Unchanged
Beef (\$ per kilogram of carcass weight, weighted averages, GST exclusive and net levies at farm gate)					
Steer (296-320 kg carcass)	4.05	4.65	5.15	4.90	-5%
Heifer (195-220 kg carcass)	3.95	4.50	4.80	4.60	-4%
Bull (296-320 kg carcass)	3.90	4.40	4.60	4.40	-4%
M Cow (160-195 kg carcass)	2.75	3.20	3.40	3.10	-9%
Deer (\$ per kilogram of carcass weight, weighted averages, GST exclusive and net levies at farm gate)					
Stag (60 kg carcass)	6.35	6.30	7.15	7.60	+6%
Hind (50 kg carcass)	6.25	6.25	7.05	7.50	+6%
Velvet (\$ per kg)	100	125	125	115	-8%
Grains (\$ per tonne, AgriHQ prices grower bids delivered nearest store or mill, net levies and freight to this point)					
Milling Wheat	410 to 450	400 to 450	340 to 400	340 to 400	Unchanged
Feed Wheat	380 to 440	370 to 445	290 to 360	290 to 360	Unchanged
Feed Barley	370 to 435	360 to 445	255 to 340	255 to 340	Unchanged
Maize Grain	440 to 500	390 to 460	380 to 420	380 to 420	Unchanged
Palm Kernel	300 to 370	225 to 310	200 to 250	200 to 250	Unchanged
Kiwifruit (\$ per tray OGR, crop year)					
Zespri™ Green	5.23	6.01	5.13	4.20	-18%
Zespri™ Gold	12.91	9.80	8.21	8.20	Unchanged
Apples (Weighted FOB returns \$ per TCE, crop year, % change 2015 to 2016 crop)					
Braeburn	22.4	24.4	26.1	29.0	11%
Royal Gala	26.3	27.9	30.0	33.9	13%
Fuji	26.4	32.0	34.0	42.0	24%
Jazz™	28.5	31.4	31.3	33.4	7%
Pacific Rose	36.7	38.2	46.2	42.5	-8%
Grapes (\$ per tonne, national average, vintage year, % change 2015 to 2016 vintage)					
Sauvignon Blanc	1,602	1,605	1,689	1,800	7%
Merlot	1,771	1,768	1,753	1,750	Unchanged
Pinot Noir	2,983	2,931	2,992	3,000	Unchanged
Chardonnay Mendoza	1,457	1,692	1,829	1,850	1%
Chardonnay Other	1,427	1,690	1,613	1,650	2%
Pinot Gris	1,486	1,530	1,535	1,550	1%

FEATURE ARTICLE: FARM-GATE PRICE OUTLOOK

SUMMARY

The dichotomy across key agricultural sectors is expected to continue in 2016/17 with a variety of forces shaping the outlook for each sector.

In terms of key commodities:

- We continue to hold a high-\$4/kg MS milk price view for 2016/17. If recent price gains can be held onto in October/November when the Chinese free-trade window closes – and the NZD doesn't get turbo-charged further – then this would create upside toward the mid-\$5/kg MS. Milk companies' underlying returns from 'value-add' strategies are set to continue to provide some additional earnings too (see page 5 for more).
- It's a mixed outlook for sheep meat prices, with downside risks possible due to Brexit impacts. On the positive side, tradable supply is expected to tighten during New Zealand's main production window. Chinese and US demand is solid too. The offset is Brexit impacts: a higher NZD/GBP, likely lower end-demand in the UK, and more competition within Europe (see page 10 for more).
- The beef market looks finely balanced. Australian and New Zealand supply is forecast to fall, but this will be offset by further increases in US supply. Combined with solid demand indicators for beef consumption this points to a continuation of current prices in the US. That said, there are some headwinds in the US and other key secondary markets in Asia. Combined with an elevated NZD/USD this is likely to see slightly lower farm-gate returns in the 2016/17 season (see page 13 for more).
- At the finer end of the wool clip, prices are expected to be supported by lower Australian supply, a pick-up in US woollen apparel demand and continued demand growth for luxury items within China. At the coarser end of the clip demand looks fairly steady and supply constrained. As long as the NZD heads back toward 0.70 this should support farm-gate prices, albeit not quite at the levels achieved in 2015/16 (see page 17 for more).
- Tight New Zealand venison production is expected to support farm-gate returns at multi-year highs in 2016/17. The industry has also had some success in growing demand in non-European markets and for products/channels outside the game season in more traditional markets. This provides plenty of inter-market competition and allows average returns to be optimised with tight supply (see page 19 for more).
- Trading activity and prices for the domestic grain market are very depressed. Dairy demand could pick up with an improved outlook for the milk price. Domestic supply could tighten quickly too with growers having planted less feed grain in the winter/autumn and low intentions for spring planting. But while these indicators suggest an improvement at some point, international grain prices look biased even lower (see page 22 for more).
- Green kiwifruit prices have come under pressure from higher New Zealand volumes and a bounce-back in Chilean supply, as well as improving quality standards. Long-term green volumes are expected to be steadier, which with an improved marketing mix more targeted to Asia should support returns in the \$4.5 to \$5.0/tray range. The industry's expectations of Gold3 returns have been re-rated higher. Orchard-gate returns look like they will be still above \$8/tray for 2016, but there is likely to be some moderation into 2020 from a changing market mix (see page 25 for more).
- The pipfruit sector has had another very good export season, which will mark four years of very profitable returns. Asian markets continue to drive the growth in returns. European markets have been less of a priority due to lower earnings (see page 27 for more).
- Despite a large 2016 crop across the viticulture sector, a supply imbalance is not expected. In fact an increase in supply was required after the small 2015 vintage and continued demand growth in North American markets created a deficit situation over the last year. Looking forward, the North American and domestic markets are expected to remain buoyant, while Australia and the UK are likely to be tougher (see page 30 for more).

THE BIG PICTURE

The dichotomy across key agricultural sectors is expected to continue in 2016/17 with a variety of forces shaping the outlook. The operating environment still looks challenging for key livestock sectors despite some expected improvement for dairying. In the red meat and fibre sector there are knock-on impacts from dairying to arable prices and dairy support. While meat prices generally look okay, in the case of venison and sheepmeat lower New Zealand supply is a key reason. In contrast, the main horticultural crops are on track to post near-record export volumes and still achieve solid prices. This will lift overall revenue, supporting bottom-line returns.

FEATURE ARTICLE: FARM-GATE PRICE OUTLOOK

General offshore dynamics continue to look challenging on a number of fronts, but exposure varies by sector.

- More sluggish economic and real wage growth is being seen in many markets outside the US, dampening demand.** The global economy continues to struggle to work through the after-effects of the global financial crisis. **It's a bathtub-shaped recovery (grinding along the bottom) as opposed to a U or V.** Debt levels remain high, forcing deleveraging, despite low interest rates encouraging spending (if not by savers). Emerging market economies now have considerable debt and a lot of eyes are on China, where corporate leverage is in excess of 100% of GDP.
 - There is growing concern that record-low interest rates** (indeed, negative rates across a lot of nations) **are fostering investment malfeasance, mispriced capital and misallocation of risk such that another accident is around the corner. The piper invariably gets paid.** Central banks and fiscal policymakers don't have a lot of ammunition to fight more fires.
 - At the microeconomic level, the retail channel's constant conditioning of consumers for 'discounts' continues to influence wholesale pricing and margins further up the supply chain.** Foodservice demand, while still providing organic growth in emerging markets, is faced with similar margin pressures to the retail channel in many developed markets. These pressures and changes in technology and business practices are reshaping supply chain configurations, distribution partnerships and channels (i.e. direct online).
 - The downstream implications of falls in energy prices and the broader commodity complex continue to reverberate through the soft commodity complex.** Oil-exporting nations' purchasing power is lower and they are key buyers of dairy, grain, fruit and meat products. Lower energy prices also affect the cost of shipping and production. In relative terms this tends to benefit livestock competitors with more intensive production systems. Commodity prices are volatile and history shows busts tend to be longer in duration than booms. The supply-side response to high prices (produce more) is still being worked through in a host of industries (oil, iron ore, dairying) in association with some structural change (e.g. electric cars and what that means for oil demand).
 - Geopolitical ructions** are disrupting trade flows and import demand in some key import regions (mainly Europe and the Middle East). Russian sanctions and a drive to self-sufficiency continue to suppress returns in some markets and increase competition in others. Chinese trade risks continue to appear on a regular basis.
 - Government support for competitors continues, including in China.** Some recent developments have been positive, with Europe targeting the supply-side for dairying. However, other initiatives continue to support less-efficient supply in the current downturn for other policy reasons (i.e. environmental and self-sufficiency). This reduces restructuring and the supply response to current market conditions.
 - Low global feed costs are boosting the competitiveness of key competing Northern Hemisphere exporters and products.**
 - Competitors are opening up market access** into China, US, UK and other emerging markets.
 - Foreign exchange movements are altering competitiveness.** Euro and GBP weakness boosts their exporter competitiveness for the likes of dairying, but reduces New Zealand earnings for products such as venison, sheepmeat, pipfruit, wine and kiwifruit that derive a large proportion of earnings from these markets. A weaker USD also doesn't appear to have lifted soft commodity prices to the same extent as normal. A firmer USD in future courtesy of a strong US economy and Fed lifting rates means the NZD/USD should ease. We're not hopeful of that happening versus the euro, JPY or GBP, given their central banks are still in easing mode.
- Exposure to these forces varies significantly across the different primary sectors, implying quite diverse outlooks for 2016/17. Supply dynamics will be key for how things evolve.**
- New Zealand livestock and milk supply is expected to be under more pressure over the coming year, but the main horticulture exports are expected to hit new records.** Where New Zealand is the main global supplier and there is limited competitive pressure there should be gains from tighter supply. For other sectors where there is more competition, abundant stocks and/or greater exposure to countries experiencing political uncertainty and economic growth challenges, it will be a tougher trading environment, capping potential gains.

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One of the more difficult propositions for navigating out of the bottom of this cycle is the ability to aggressively seek out new markets in Asia as exporters did post-GFC. While there is no doubt further potential in many Asian markets, trade is also more mature than in 2008/09 and economic growth conditions are not quite so bright at present. With Europe, UK and Middle East all struggling too this leaves limited options for exporters to pivot into.

The one beacon of light has, and continues to be, the US. Where there are already good business relationships, favourable market access and less local competition (i.e. red meat and wine), there has been a notable lift in exports in recent times.

DAIRY

We continue to hold a high-\$4/kg MS milk price view for 2016/17. If recent price gains can be held onto in October/November when the Chinese free-trade window closes, this would create upside toward the mid-\$5/kg MS. While milk supply growth is set to slow, supporting higher prices than in 2015/16, we remain wary of the health of end demand in key importing regions, low input costs (feed, finance and energy) for intensive dairy systems, the US re-entering the export market, and an overhang of skim milk powder in Europe.

Longer term we still see the milk price sitting in a mid \$-5 to mid \$-6/kg MS range. This is \$0.25-\$0.50/kg MS below the trend prior to the downturn. Further detail can be found in the August 2015 *Agri Focus* if you missed it. The next 9-12 months will provide a better guide of where the new equilibrium will sit as the market recovers from its cyclical low.

The offset to a lower milk price is dairy companies executing on 'value-add' strategies, changing the product mix and providing some underlying improvement in financial results. This will provide additional returns via extra premiums, or dividend payments.

THE SWING FACTOR

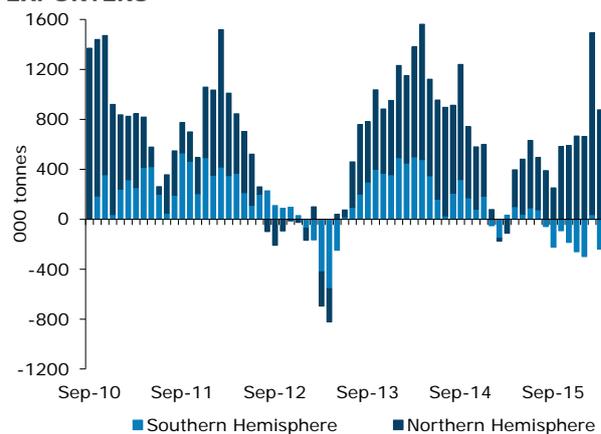
The cycle in international dairy prices is heavily influenced by milk supply developments.

Southern Hemisphere supply has been slowing for nearly a year with softness across Australia, New Zealand and the major South American producers. The declines in production have been more aggressive in South America and Australia over the last several months as reduced farm-gate prices and some weather issues have forced early drying-off, culling and other farm management changes. Low prices mean less incentive to produce and market prices are driving the response.

The crucial part of the puzzle is that European production has also started to slow on both an annual and seasonal basis in recent months.

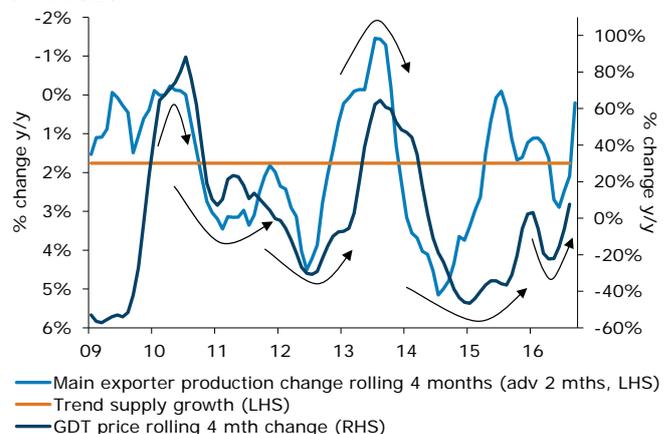
This has been led by some of the biggest producers with the likes of the UK, Germany and France (47% of annual European supply) reducing milk supply and high-growth areas such as Ireland and the Netherlands (14% of annual supply) having seen a slowdown in growth.

FIGURE 1. MILK PRODUCTION GROWTH FOR MAJOR EXPORTERS



Source: ANZ, Dairy Australia, DCANZ, CLAL, Datum, USDA, European Commission

FIGURE 2. MILK PRODUCTION GROWTH VS GDT PRICE CHANGES

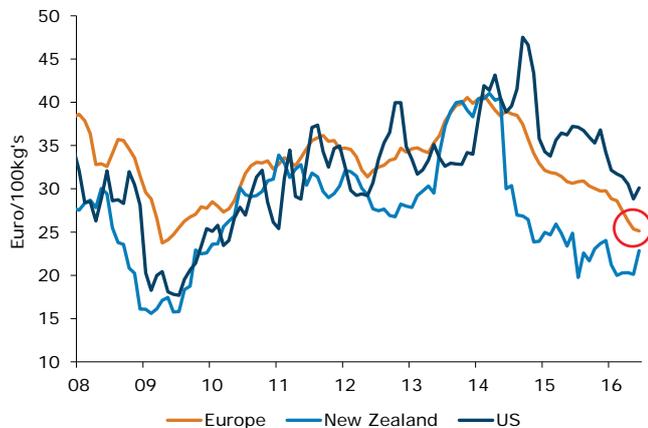


Source: ANZ, Dairy Australia, DCANZ, CLAL, Datum, USDA, European Commission

Part of the slowing in supply has been weather related and base effects from when quotas were removed, but in the main it has been lower farm-gate prices biting harder since the start of 2016. This has started to force some restructuring in less-efficient producing regions.

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FIGURE 3. STANDARDISED MONTHLY FARM-GATE PRICES



Source: ANZ, Datum

The one market that continues to produce more milk is the US, but this is not hitting the international marketplace. US milk production is being supported by low feed prices and high domestic prices for milkfat products keeping farm-gate returns well above international prices in certain regions.

Indeed US cheese prices have been trading at a 15-20% premium to elsewhere in the world and butter a whopping 60-70% premium in recent months. The butter market is being driven by US consumers moving back toward natural products with new research and health practitioners increasingly saying it's a better choice than alternatives, which had taken market share over past decades. High tariff barriers and quotas limit the amount of butter that can be imported into the US, with Europe having significantly better access to this market than New Zealand does. Cheese demand is being driven by a quite different trend of robust foodservice demand (think pizza, burgers etc, which all have a cheese component) even though inventory levels have climbed to a 30-year high. Again tariffs and quotas restrict access for exporters. Similar trends are being seen within Europe too, which is influencing competitors' product mix (i.e. what they are producing from milk). For the US these trends, combined with low international prices and water challenges in California (a key exporting region), have kept them out of international markets lately. This could of course reverse if international prices were to increase enough.

Looking forward, milk supply out of New Zealand and Europe will remain key. Both look like they will be under additional pressure unless farm-gate pricing substantially improves and/or weather conditions are favourable.

In New Zealand cow numbers have been lowered further heading into the 2016/17 season. Overall cows in milk at the peak of the season are expected to be 5-6% below the record high of 2014/15. Some of the extra culls were going to be used for expansion that was subsequently placed on hold, or for live exports, but extra culls have also been generated by farm management changes. These changes have included culling low-performing cows and a bigger focus on pasture management and home-grown feeds instead of brought-in supplement (especially on the shoulders of the season).

These changes and lower cow numbers don't translate one-for-one into lower production though. Productivity metrics, such as pasture grown/utilised and how efficiently this is converted into a milksolid (genetics, animal health, pasture management etc) are of equal importance. In this regard the industry continues to perform strongly with an average 2.5-3% annual gain in milksolids per cow in recent years. So while the farm management changes that have been adopted create a greater weather risk for production, they by themselves won't translate directly into lower New Zealand production. **With this in mind we expect milk supply will be back around 3% in 2016/17**, but much will depend on the weather and pasture conditions in major producing regions.

European production is difficult to judge from afar. The European Commission view is that production will grow by 1% in 2016. Given milk supply delivered to processors has grown by 4.5% year-to-date this implies production will fall by 0.8% y/y over the remainder of 2016. Looking forward to 2017 they are forecasting a rise in production of 0.5%. Taken together, the forecasts imply little European milk supply growth over the course of New Zealand's 2016/17 season. But views do seem to vary, which is not surprising given the changeable nature of policy support, the range of different geographical areas involved, and the industry's structure of many small farms and wide range of supply chain configurations.

Policy support now looks to be more actively targeting supply to improve wholesale and farm-gate prices too. Recent announcements have included large increases in intervention capacity for skim milk powder and butter, the initiation of a voluntary supply management system, increased support for expanding international trade, and direct aid for farmers. On balance the consensus view of the package of policies seems to be that it will help reduce milk supply and market imbalances in the

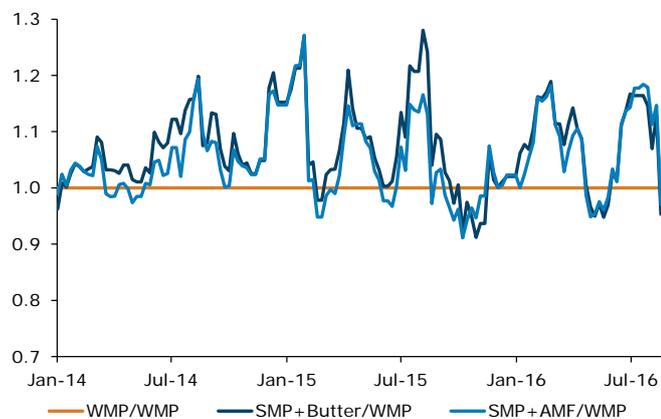
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short term. But over the long term it will support underlying supply at a higher level than otherwise would be the case by helping less-efficient farmers through the current downturn.

PRODUCT MIX AND PRICE RELATIVITIES

While milk supply is important, so too is what products are produced from that milk, and which markets (i.e. domestic vs international) are being targeted. In this regard whole milk powder (WMP) has generally been less favoured over the last 12 months compared with a skim milk powder (SMP)/milkfat product mix, or even other foodservice products, such as cheese.

FIGURE 4. PRODUCT MIX VALUE COMPARISON

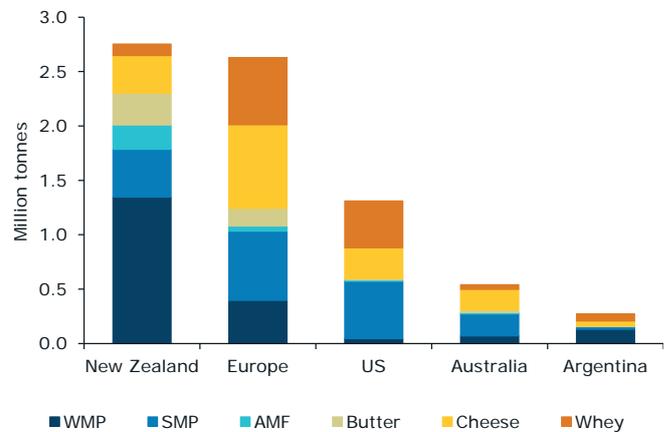


Source: ANZ, AgriHQ

However, the recent price surge for whole milk powder in August has changed the equation going into the seasonal peak for New Zealand. This could see more WMP supply emerge over the second half of the year, especially if early season milk supply is strong, which current seasonal conditions point toward.

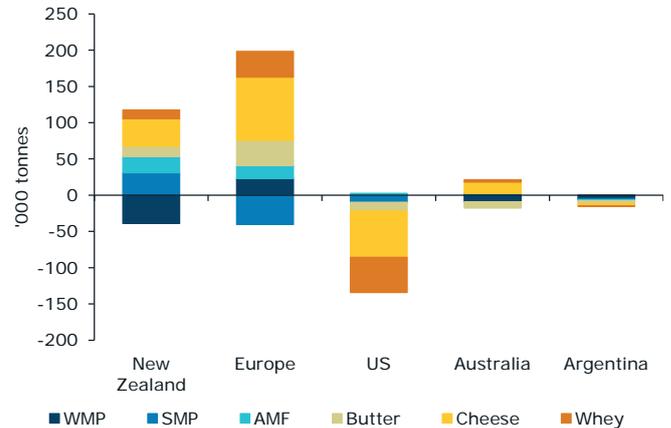
On the competitor front it depends what product is being discussed. New Zealand continues to dominate the WMP category, followed by Europe and then Argentina. For SMP Europe is now the major exporter followed by the United States and New Zealand. In the milkfat market New Zealand dominates both butter and anhydrous milkfat exports, but is a distant second to Europe for cheese. Of course there is a wide variety of cheese types with New Zealand more focused on foodservice products, such as mozzarella. Overall, Europe and the US are much larger producers of milkfat products though, with only residual supply making it onto the international market place.

FIGURE 5: MAJOR EXPORTERS PRODUCT MIX



Source: ANZ, AgriHQ

FIGURE 6: CHANGE IN MAJOR EXPORTERS SALES VS LAST YEAR



Source: ANZ, AgriHQ

For New Zealand the main competitor is Europe and this competition has taken a step up with the removal of production quotas, the loss of the Russian market, and a lower euro making exporting more attractive. We expect this to continue, especially with an improvement in international prices.

Europe is home to some of the biggest branded dairy groups in the world (FrieslandCampina, Danone, DairyGold Arla, Lactalis, Nestlé, Muller, Glanbia). These companies have strong brands (and intellectual property) that are well established in many global markets (more so than US companies, we believe). Many of these companies have been investing heavily to expand processing and storage capacity, as well as increasing their export outlets both through organic growth in existing markets, acquisition of in-market brands and in-country processing capability (including through joint ventures – e.g. Arla:Mengniu).

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In the powder markets most of the pressure, so far, has come on skim milk powder, with annual European production up nearly 500,000 tonnes (+45%) in three years. With the loss of the Russian market European processors have focused on skim milk as it has a longer shelf-life, there is the intervention backstop (which has been expanded in capacity), and the milkfat component has been able to be sold on their own domestic market at reasonable prices.

TABLE 1: EUROPEAN MILK POWDER PRODUCTION

Year	Whole milk powder			Skim milk powder		
	Prodn	Export	% Export	Prodn	Export	% Export
2016p	768	395	51%	1,602	661	41%
2015	746	391	52%	1,533	685	45%
2014	778	390	50%	1,454	648	45%
2013	756	374	49%	1,108	407	37%
2012	671	386	58%	1,109	520	47%

Source: ANZ, European Commission

There is no indication this focus will change much in the short term, especially with increased processing capacity in place. Of the near 500,000 tonnes increase, around 40% has been exported into African, Middle Eastern and Asian (excluding China) markets. The rest has ended up in private and public storage awaiting an opportune time to re-enter the marketplace.

The main area of focus is when, in what form, and at what price the 332,500 tonnes of SMP sitting in the intervention scheme re-enters the marketplace. The European domestic market obviously has limited capability to absorb extra supplies, given stable consumption, so it's assumed a good proportion will end up on the international market, capping SMP prices. This is important for direct pricing competition with New Zealand-sourced SMP, but equally for WMP prices ability to outperform the SMP/milkfat product mix.

Anecdotally, many buyers appear to have increased their sophistication and ability to use either product stream following the spike higher in WMP prices in 2013/14. This means there is both improved processing (extra manufacturing capacity) and buyer flexibility, reducing the ability of one product stream to outperform the other by a significant margin for a sustained period.

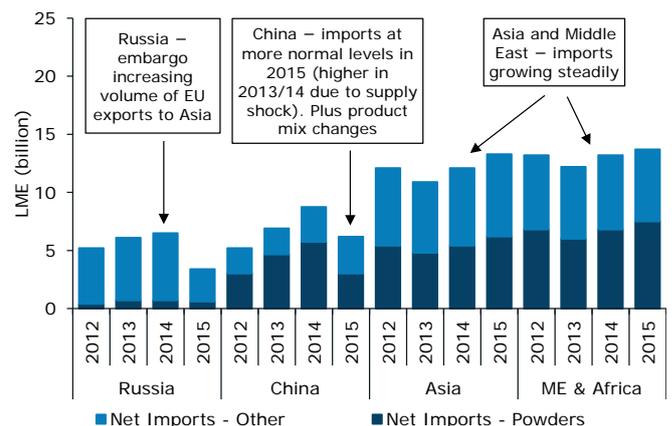
Current WMP and milkfat prices translate into a SMP price of US\$2,350/tonnes. This is well above the intervention price of approximately US\$1,900/t, suggesting further sustained upside could be limited for WMP until the

European stockpile is somewhat reduced. That said, some of the stockpile could end up in food aid programs, stock feed, or blended with fresh product and manufactured into other products like casein, meaning it doesn't enter into direct competition with the products that determine the milk price. But this will depend on how far the European Commission's budget can stretch.

END MARKETS

The recent price improvement, especially for WMP, will now test the demand side of the equation. Long-term demand is about population and income growth. The potential across the major developing markets varies considerably, but population growth, the lift in real incomes occurring in emerging countries, urbanisation, modernisation of emerging countries' food industries and the shift to more westernised diets generally makes for a favourable long-term mix.

FIGURE 7. GLOBAL IMPORT DEMAND BY REGION



Source: ANZ, Fonterra

These dynamics have been reflected in steady import growth from Asian, Middle Eastern and African markets in recent years. Higher-frequency import data shows Middle Eastern and African imports have slowed up since late last year. This is not surprising with many key importing economies facing a challenging environment in light of the drop in energy prices (specifically oil), slowdown in global trade, civil unrest and political uncertainty. Despite some further recovery in oil prices being expected (into the low US\$50/bbl range) a recalibration of these economies is expected to be an ongoing drag on import demand, especially at higher prices.

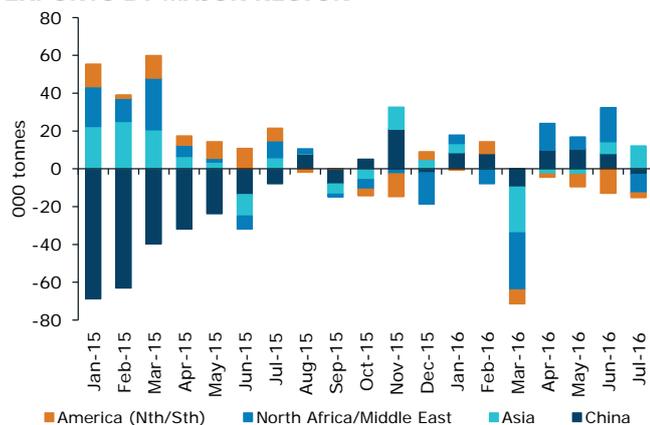
Emerging Asia prospects look a little brighter, but the performance has been heterogeneous. Economies where domestic demand (particularly private consumption) is a larger share of GDP – such as Vietnam, Indonesia, India and the Philippines –

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continue to register robust economic outturns. Along with the recent appreciation in Asian currencies improving their purchasing power for imported products, this is expected to support fairly steady import demand. The caveat surrounding emerging Asia continues to be how it copes with lifts in the US fed funds rate (a lot of the debt is USD-denominated) given rapid debt accumulation post the global financial crisis. Debt levels (to GDP) in the emerging market world are as high as they were across the Western world prior to the crisis.

Turning to the question of market access, **improved market access to Mexico, Japan and the US would deliver immediate benefit** as these markets are three of the world's largest dairy importers. In the current political environment and terms negotiated for dairy market access under the Trans-Pacific Partnership, this is a long-shot opportunity. And in the case of Japan and the US, import demand would probably be more about milkfat and other dairy products, as opposed to milk powder, in any case.

FIGURE 8. CHANGE IN NEW ZEALAND MILK POWDER EXPORTS BY MAJOR REGION



Source: ANZ, AgriHQ

This brings us to the two recent swing markets: China and Russia.

- **The Russian market remains closed for the foreseeable future.** Even if sanctions were to be reduced import demand is unlikely to be high due to challenging economic conditions, increased domestic supply as they drive toward self-sufficiency, high non-tariff barriers and new supply partners (i.e. India), as well as existing ones (i.e. Belarus) helping fill the void.
- **A lot of the heavy lifting remains with China.** On this front there has been a notable pick-up in import demand for milk powders recently due to lower inventory levels, hot/dry weather in North China, which has reduced domestic fresh milk

production, and buying for the free-trade window. As always, how long this might persist is difficult to judge. As we noted in our update in August 2015 *Agri Focus*, China is likely to remain a swing buyer of bulk ingredient products depending on both local supply conditions and continued industry restructuring to adjust to changing regulations aimed at improving milk quality standards and self-sufficiency.

Logic suggests counter-seasonal supply needs (which New Zealand can provide); ongoing mistrust of domestic milk supply by Chinese consumers, and the high cost of production for local supply should support high import growth. But this logic won't apply to the same degree if there is an implicit self-sufficiency target, meaning government policies will provide industry assistance for overcoming these hurdles, as well as helping improve consumer trust in local milk products.

The other dynamic New Zealand exporters will be aware of is a changing China import product mix toward the likes of butter, cheese, liquid milk, higher-value whey proteins and lactose. This suggests demand growth is still alive, but market demand is perhaps moving away from whole milk powder. If this is the case it has very large implications for New Zealand's current product mix and the direction in which the industry will need to head to meet the needs of the Chinese marketplace.

On this front there appears to be more evidence emerging of a number of dairy companies beginning to better execute on their 'value-add' strategies. This is starting to slowly change the product mix away from the likes of WMP and is providing some underlying improvement in financial results. This will provide some additional returns via extra premiums, or dividend payments.

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SHEEPMEAT

It's a mixed outlook for sheep meat prices, with downside risks due to possible Brexit impacts.

On the positive side, tradable supply is expected to tighten during New Zealand's main production window. However, this will be driven mainly by New Zealand's 2016 lamb crop hitting new lows and some anticipated restocking in the main sheep breeding regions during 2016/17. Other positives include improved demand from China as a solid winter consumption period appears to have lowered frozen inventories. US import demand is also robust due to better local economic conditions.

Normally the size of the anticipated fall in lamb and mutton supply would push wholesale prices higher, but Brexit impacts of up to \$0.30/kg will provide an offset. A key issue is a higher NZD/GBP, and end-demand is also likely to be affected as it is one of the highest-priced meats. The ability to pivot product into Europe could be limited too, due to increased UK supplies.

All up we expect a largely unchanged all-season average price of \$90/head (for a 17.5kg carcass) in 2016/17, but there could be some downside from Brexit / GBP impacts. Lower New Zealand supply could support higher premiums on the shoulders of the season, especially for the Christmas trading period due to low pasture covers in early lambing regions and a tight supply finish to the end of the 2015/16 season.

TIGHTER TRADABLE SUPPLY IN 2016/17

Global supply of tradable lamb is dictated by New Zealand and Australia. That said, domestic production in key export destinations, such as China, United Kingdom and Europe also matter for price direction. **Both Australian and New Zealand supply is expected to be tighter during the main production period of 2016/17**, which should provide some price support.

New Zealand supply

The 2016 New Zealand lamb crop is likely to hit a new multi-decade low. The number of cull ewes has tracked above industry forecasts in 2016 due to poor pasture conditions in key breeding regions such as Hawke's Bay, Wairarapa and North Canterbury and low farm-gate prices. This has led to a further 3.1% fall in breeding ewe numbers.

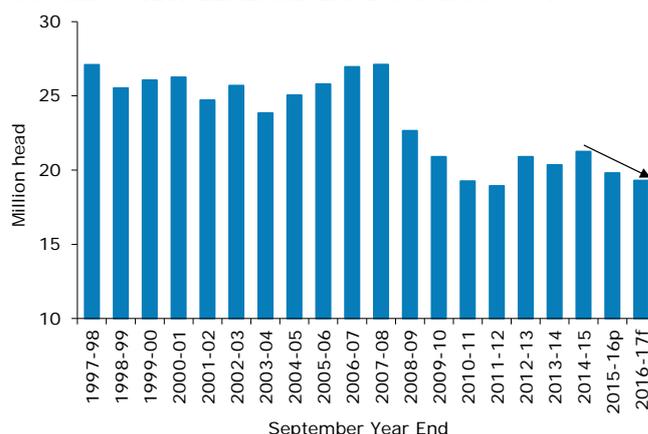
The other drag is likely to be a lower overall lambing percentage for the national flock. The main challenges have been:

- poor tupping conditions in many of the main North Island breeding areas and generally less hogget mating (due to lower weights);
- the facial eczema outbreak in the North Island;
- lighter ewe conditions and pasture covers in key breeding regions, which will impact survival rates during lambing.

The first two factors have resulted in lower scanning results and a higher proportion of dry ewes, especially in the North Island. Anecdotally lamb survival rates have been good so far, but are generally expected to be pressured from sub-clinical facial eczema damage rearing its head during lambing, and lighter ewe conditions due to lower pasture cover in several key breeding regions. **While it's always difficult to judge, early industry indications are for a 2.4 % drop in the overall 2016 lamb crop.**

The other dynamic that could influence production will be weather and pasture conditions during 2016/17. Some normalisation in East Coast conditions, combined with reduced dairy support options, is likely to see re-stocking via higher hogget and breeding ewe retention. This, combined with the anticipated drop in the lamb crop, could push export supply into the low 19 million head range (-4% y/y). A slight offset for total production should come from heavier carcass weights due to lower lamb numbers and stocking rates.

FIGURE 9. NEW ZEALAND LAMB PRODUCTION



Source: ANZ, Beef + Lamb NZ

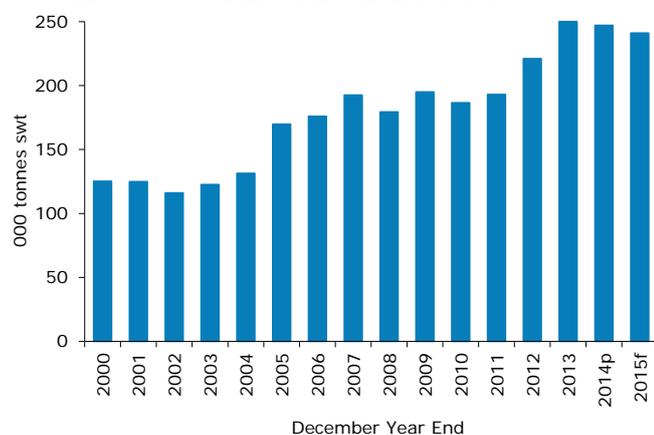
Australian supply

Australia is now consistently producing more lambs than New Zealand. Total production has stabilised around 22-23 million head in recent years and average carcass weights are around 22kg/head.

FEATURE ARTICLE: FARM-GATE PRICE OUTLOOK

Much of the extra meat production has been driven by a shift toward more composite and pure meat breeds within its flock.

FIGURE 10. AUSTRALIAN LAMB EXPORTS

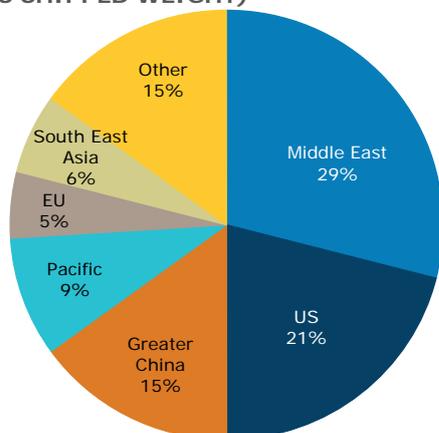


Source: ANZ, Meat & Livestock Australia

The increase in supply has translated into more exports, which have grown a remarkable 50% since 2010. The three main growth markets over this period have been China, the Middle East and the United States. Supporting acts have included the Pacific Islands.

Near-term lamb supply and export expectations are for stability. Industry surveys suggest supply is expected to be a little higher into the end of 2016 due to a number of lambs on hand at June. There is then expected to be a drop-off in the first half of 2017 due to 10% fewer ewes being mated for spring lambing. If this is the case the timing should coincide with the seasonal pick-up in New Zealand frozen supply, which is when markets such as China and the Middle East become more influential in determining farm-gate pricing.

FIGURE 11. AUSTRALIAN LAMB EXPORT MARKETS (TONNES SHIPPED WEIGHT)

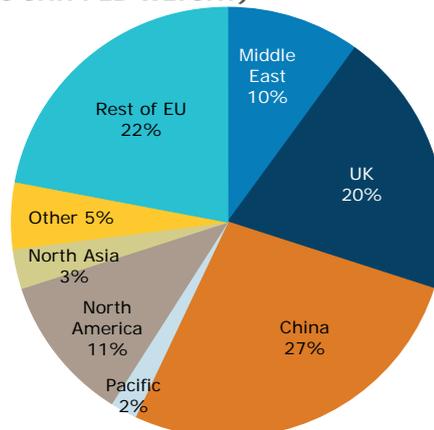


Source: ANZ, Meat & Livestock Australia

MIXED MARKET OUTLOOK

New Zealand has maintained a fairly stable market mix in recent years. However, lower supply, Brexit impacts, further market access gains in China (and possibly through the Trans Pacific Partnership), Silver Fern Farms' change of capital structure and other meat processor marketing initiatives could see the marketing mix evolve over the next several years.

FIGURE 12 NEW ZEALAND EXPORT MARKETS (TONNES SHIPPED WEIGHT)



Source: ANZ, Beef + Lamb NZ

UNITED KINGDOM AND EUROPE

The main talking point for sheepmeat markets is Brexit and what this will mean for the United Kingdom and European markets. Together these markets account for 42% of total exports volumes and 50% of earnings.

In the UK the near-term impacts of a lower GBP (higher NZD/GBP) and potentially more subdued retail demand from a hit to consumer confidence and spending will be material for sheepmeat returns in 2016/17. Other things remaining the same the sustained increase in the NZD/GBP would reduce lamb farm-gate prices by \$0.15-0.20/kg in 2016/17. If you add in a 10% drop in wholesale prices this reduces farm-gate returns by \$0.30/kg in total, or \$5.25/head for a 17.5/kg lamb.

It is difficult to predict the overall hit to spending on a niche product like lamb, particularly given the special-occasion sale periods (Christmas & Easter) where consumption is driven by cultural factors. However, initial developments post the Brexit vote have been a hit to consumer and business confidence, as well as anecdotal evidence of supermarket discounting and companies looking to restructure their affairs (including lay-offs) to fit the

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new paradigm. We will be keeping a close eye on labour market developments and UK retail/wholesale pricing. Also key will be how the political fallout from Brexit flows across Europe and whether we see repeats as societies increasingly push back against economic integration and globalisation.

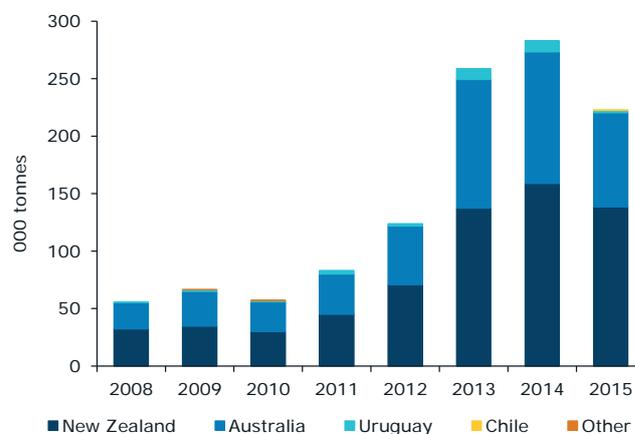
The other near-term impact is how UK farmers and processors respond. Local supply, which accounts for approximately 70% of the total market, is already expected to increase (+2%) in 2016/17, adding to the other pressures that will see lower imports and prices. However, the UK is also likely to increase its exports to Europe, which usually accounts for around 90% of its trade. The rationale for this prediction is a lower GBP, increased supply, and tougher local trading conditions. This, combined with slightly higher supply within Europe as well, could somewhat limit New Zealand's ability to find a suitable home for displaced UK product.

The long-term implications are even more difficult to anticipate due to their political nature. The main two we are concerned about are trade relationships and government support programs for UK farmers. On the trade front there is a bit of time, with nothing changing for at least two years after the UK triggers the mechanism to leave the EU, whenever that may be. We suspect New Zealand's access won't change too much, but at the very least Australia are likely to get improved access. This will increase competition with New Zealand product given seasonal production patterns. Other outcomes between the UK and Europe are too difficult to judge, but could be both positive and negative. The other end result could be reduced government support for UK farmers, something there has already been some increased 'noise' about. This is very political, but any reduction in support would be a long-term positive for New Zealand producers.

CHINA

Import demand out of China has picked up recently after taking a tumble over the past 18 months. Earlier high imports and liquidation of the Chinese flock (reportedly 10 times New Zealand's output) due to disease issues, food safety regulatory changes and some smaller farmers exiting at high prices led to an oversupply situation and excess frozen product that hung over the market for some time. This saw forequarter and flap prices drop as much as 20-25% below the three-year average. More recently some balance has been restored with solid consumption during the winter period when more hotpot cuisine is prepared (perceived to generate 'internal heat' according to traditional Chinese medical thinking).

FIGURE 13. CHINESE SHEEPMET IMPORTS



Source: ANZ, Comtrade

Due to a lack of accurate information on flock numbers, slaughter rates and inventories, the China market is subject to a high degree of uncertainty. However, the reduction in breeding ewe numbers should result in tighter local supply, potentially lifting import requirements further over the coming two years.

Long-term China demand drivers remain attractive. As chilled access is improved, New Zealand product will be able to compete more on freshness. This is a top purchasing attribute that New Zealand can't currently service with frozen product. While price is the other important factor when purchasing meat, more affluent consumers are willing to pay more for attributes such as delicious taste, food safety, consistent quality standards, environmental sustainability and better animal welfare standards. Consumer numbers in this bracket continue to increase and combined with new processing partnerships and improved market access should provide plentiful opportunities.

MIDDLE EAST

Many Middle East countries are struggling with political uncertainty and lower energy revenues. This is unlikely to change in the short term. **Luckily the majority of New Zealand's product goes to Saudi Arabia,** which has more political stability, a larger/younger population, government food programmes, and is one of the lowest-cost oil producers. **This, alongside lower Australian mutton and improved Chinese demand, should provide some stability despite the depressed state of general economic conditions in this region.** One area to watch is changes to government food programs, with Bahrain recently stopping its subsidy for sheepmeat, which has increased retail prices and lowered consumption.

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NORTH AMERICA

Total lamb imports into the United States hit new records recently, mainly due to higher imports of Australian product. The drivers have included the US sheep flock being close to a 10-year low, which accounts for around 50% of supply. Low local supply, combined with robust foodservice and high-end retail demand, has supported imports. Demand for lamb, one of the highest-priced meats, is being driven both by the upper-end US consumer being in good heart and also by changing consumption patterns toward 'healthier', 'natural', 'grass-fed' and 'wholefoods', lifting lamb's appeal.

Lamb is also becoming more popular amongst younger US consumers looking for a more pronounced flavour than that offered by pork and poultry. The other growth area is for traditional ethnic cuisines due to growing Indian, Muslim, African and Hispanic populations. This creates opportunities for other cuts (i.e. forequarters) outside of what New Zealand has traditionally supplied (i.e. racks and loins).

BEEF

The beef market looks finely balanced. Australian and New Zealand supply is forecast to fall, but this will be offset by further increases in US supply. Manufacturing beef supplies, while increasing in the US, remain constrained due to good pasture conditions and cow-calf returns. Imports and inventory are also lower due to the drop in Australasian supply. These supply dynamics – combined with solid demand indicators for beef consumption such as increases in real per capita disposable incomes, robust labour market indicators and healthy consumer confidence – point to a continuation of current prices in the US.

That said, there are headwinds in the US and key secondary markets in Asia. These include rising pork and poultry supplies, improved market access for South American suppliers into a number of markets, more competition in established Asian markets from traditional competitors' improved market access, and an elevated NZD/USD. On balance these headwinds are likely to see slightly lower farm-gate returns over the course of the 2016/17 season.

TRADABLE SUPPLY

New Zealand's preferential market access that has long sheltered it from some key low-cost producers is being incrementally eroded. Brazil is improving its access to the US and China making

it a long-term threat. New Zealand have lost ground to traditional competitors in long-established Asian markets. This is making for a more competitive landscape. That said, while South American beef supply will have a bigger say for global prices moving forward, local, Australian and US supplies still matter the most in the near term. US supply is set to increase further, but this will be offset by lower Australasian supply.

Australian supply

Australian supply has begun to tighten significantly after the surge in female slaughter during 2014 and 2015 due to ongoing drought conditions in key cattle-producing regions. This saw breeding cow numbers drop from a 35-year high to a 20-year low in the space of less than two years. This drop in cow numbers and re-stocking expectations are expected to weigh on supply until at least 2020. In the near term annual supply is expected to contract by nearly 2 million head (-22%). This will lead to a decline in production and exports of around 490,000 tonnes – equivalent to around 80% of New Zealand's annual production.

New Zealand supply

Industry expectations are for New Zealand supply to decline by 37,000 head (-1.5%) in 2016/17 too. This will be driven by lower dairy cull cow turn-off and the smaller beef breeding herd of recent years having produced fewer calves, meaning lower prime beef production.

Lower dairy cull cow turn-off is anticipated as a smaller herd and improved returns result in a moderation of excess culling. Total dairy cow numbers have dropped 5-6% since the peak in 2014/15, driven by the culling of low-performing cows, a drop in new farm conversions and farm management changes to lower costs that mean less brought-in supplementary feed and grazing out of stock.

Beef breeding cow numbers have dropped 4.5% since 2014/15, in part due to prolonged dry conditions in some breeding regions. This has led to fewer calves and will lower prime beef slaughter further in 2016/17. The slight offset will be higher bull beef slaughter due to increased calf rearing in recent years. This has been driven by higher beef prices and some farmers looking for alternatives to dairy support.

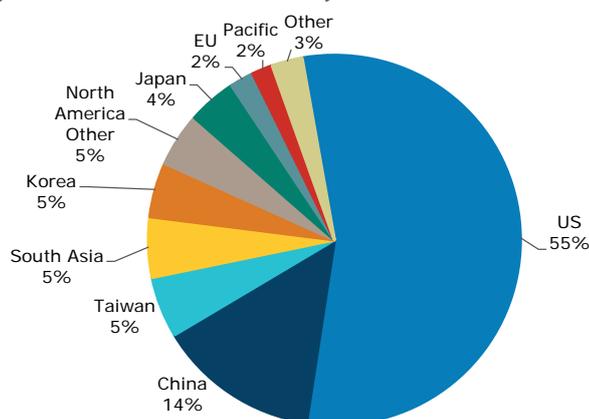
FEATURE ARTICLE: FARM-GATE PRICE OUTLOOK

OFFSHORE MARKETS

The US manufacturing beef market continues to drive the direction of farm-gate pricing in New Zealand. This is because the US accounts for 55% of New Zealand's export volumes, much of which is manufacturing beef destined for foodservice products.

The next most important region is Asia, with its much wider variety of end markets and consumer drivers for beef consumption. China is now New Zealand's second-largest market, with exports having increased five-fold since 2011/12. China is followed by Taiwan, South Korea and Japan. The latter two have been under pressure due to improved market access for Australian and US product.

FIGURE 14 NEW ZEALAND EXPORT MARKETS (TONNES SHIPPED WEIGHT)



Source: ANZ, Beef + Lamb NZ

THE US

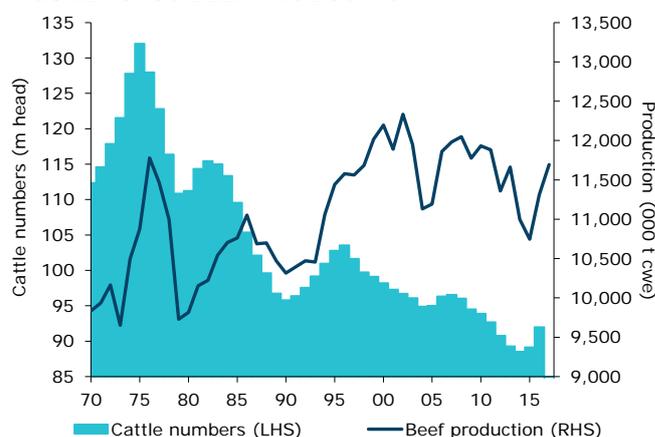
In the US, many factors influence prices, from beef imports through to foodservice sales, the price of competing meats, US beef production and its mix, the weather during key sale periods and general economic conditions.

Manufacturing beef prices climbed to record highs during the 2014/15 season, but have adjusted lower over the last 8 months to levels comparable with the 2011 to 2014 period. Prospects are for these prices to hold for much of the 2016/17 season, before potentially taking another step lower on increased US meat supplies. A further downward adjustment could happen earlier, with possible triggers including more aggressive pricing for pork and poultry, a reduction in dairy cow numbers and/or US economic conditions deteriorating sharply driven by political and global uncertainties.

Domestic supply

The US has been in herd-rebuilding mode since early 2014, driven by lower feed costs, good pasture conditions, record high cow-calf returns and lower cattle feeder imports. These dynamics continue to drive the retention of beef cows and heifers in 2016, but not to the same extent as 2014 and 2015. Nevertheless, more cows equals more calves and combined with low feed prices (heavier weights), this is leading to increased beef supply. Overall beef production is expected to expand by 4.3% or 468,000 tonnes in 2016/17. If achieved this will be a 7% increase from the 2014/15 lows, but only takes supply back to levels similar to the 2009 to 2013 period. It doesn't offset the anticipated decline in Australasian supply.

FIGURE 15. US BEEF PRODUCTION



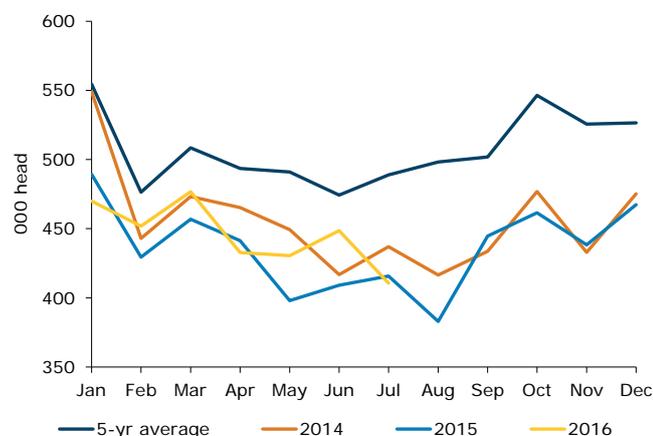
Source: ANZ, USDA, Informa Economics

While overall beef supply has some impact (via cut and consumer substitution) **the more important figure for New Zealand prices is US manufacturing beef supply and imports. On this front supply remains tighter than the overall picture.**

While total US cow slaughter is up 3% on the same period last year, it remains 10% below the 5-year average. Dairy cow slaughter remains fairly stable with minimal year-on-year variation, but beef cow slaughter has begun to lift off recent lows (+9% year-to-date).

FEATURE ARTICLE: FARM-GATE PRICE OUTLOOK

FIGURE 16. MONTHLY US COW SLAUGHTER



Source: ANZ, USDA

Both key drivers of beef cow retentions – cow-calf returns and pasture conditions – remain historically favourable, but not nearly as attractive as in the 2014/15 period. This has seen more ‘normal’ culling rates, a trend that is expected to continue throughout 2016/17, leading to increased domestic supply.

The offset to date has been lower imports and inventories. Indeed total imports have dropped by 13% year-to-date and beef in cold storage is only just above historical averages. Weakness in imports has been seen across both Australasian and South American supply. Australasian supply is expected to remain weak in 2016/17 (see details at start).

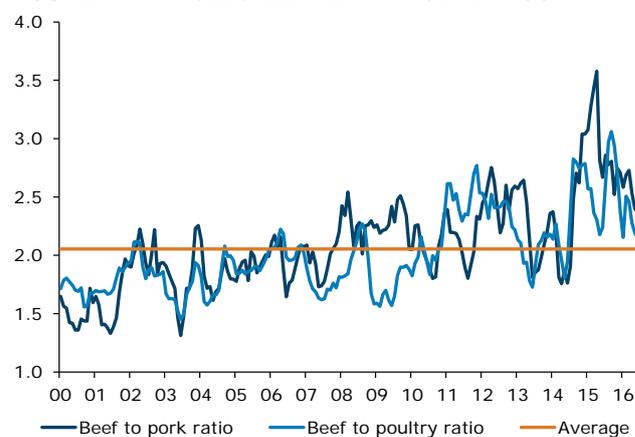
However, there has been some concern about Brazilian supply, given improved market access. Overall the near-term impact in the US seems likely to be limited as they have only gained part of an ‘other country’ quota, which has to be shared with four other countries – and the duty rate outside the quota (26.4%) seems prohibitively high for other exports. Brazilian plants also need to be individually accredited and convince end-users of their food safety credentials. This will take time. Longer-term market access will be reviewed in 2020 when there could be further improvement.

Competing meats

The other concern for beef has been lower pork and poultry prices. Overall supplies of both are plentiful due to low feed prices and challenging export conditions. Supplies of both are forecast to continue expanding in 2016/17, with some suggestions pork processing capacity won’t be able to keep up in the fourth quarter. This and a soft export backdrop is expected to pressure wholesale prices further, creating an ongoing headwind for beef.

However, it needs to be remembered a significant adjustment in the relative wholesale prices has already occurred. Indeed the relative price of imported manufacturing beef versus the cutout value of pork and poultry prices aren’t too far off the historical average since 2000. The effects can take some time to feed through too, as restaurants need time to develop new menu options, while supermarkets and other retail outlets need to balance their offerings to drive total spending (i.e. they don’t tend to change shelf space allocations for different meat types according to short-term changes in the margins of a product). These dynamics suggest the substitution pressure won’t be as intense as it was in the 2014 to early 2016 period.

FIGURE 17. WHOLESALE MEAT PRICE RATIOS



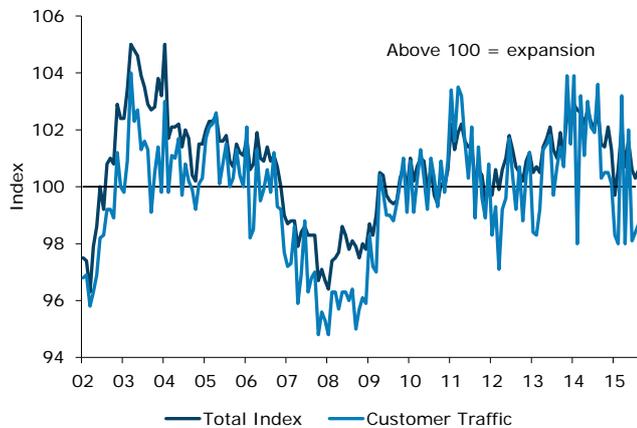
Source: ANZ, USDA

Domestic demand

While the US meat supply picture looks more challenging in 2016/17, the other piece of the puzzle is demand. **On this front, forward-looking indicators appear more robust**, albeit a bit volatile from month to month. **Decent increases in real per capita disposable incomes, robust labour market indicators and rising consumer confidence** (particularly in the age brackets with spending power) **are helping drive consumer spending.** This is supporting customer foot traffic through foodservice outlets. This is a positive for beef as such outlets account for nearly a third (by volume) of overall meat protein sold by foodservice establishments and is where the vast majority of New Zealand beef ends up.

FEATURE ARTICLE: FARM-GATE PRICE OUTLOOK

FIGURE 18. US RESTAURANT PERFORMANCE INDEX: TOTAL INDEX & CUSTOMER TRAFFIC



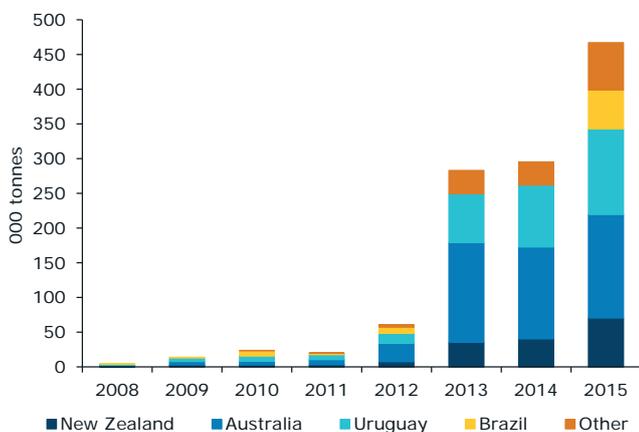
Source: ANZ, National Restaurant Association

OTHER KEY MARKETS IN BRIEF

China

Chinese beef imports have continued to increase despite a softer macroeconomic backdrop. Part of the recent increase has been driven by a crackdown on 'grey channel' trade in 2015 through Hong Kong and other channels. This makes it difficult to judge the overall net import gain.

FIGURE 19. CHINA FROZEN BEEF IMPORT VOLUMES



Source: ANZ, Comtrade

Australia remains the largest supplier, but there is increasing competition from lower-cost suppliers such as Uruguay, Brazil and Argentina. New Zealand's market share was just 15% over the past year. New Zealand's free trade agreement – with tariffs at zero for beef from 2016, compared with 12-25% for other competitors – provides some buffer against lower-cost alternatives. New Zealand meat processors' partnerships and new ownership structures are also likely to support exports into China over the long term.

Taiwan

Taiwan is currently New Zealand's third-largest export market on a volume basis with fairly steady import volumes. Given it is part of the Greater China set-up it is also suffering a slowdown in economic activity. **Softer economic conditions are seeing consumers focus on value.** Given that beef accounts for only 5% of meat protein consumption and is the highest-priced meat protein, this is applying some pricing pressure. **The offsets are less import competition from Australia (availability) and South American suppliers (market access), as well as New Zealand enjoying a tariff benefit.**

Japan

Japan has long been one of New Zealand's most important beef markets, but it has dramatically slid down the rankings in recent years despite its total imports increasing. The main reason has been increased competition from US supply. Their market access has improved since being completely shut out of the market in 2003 due to Bovine spongiform encephalopathy (BSE). Australia also enjoys a tariff benefit, having signed a free trade agreement.

There is an ongoing need for imports to meet demand. The market is very diverse, taking prime cuts through to beef offal. Retailers are expanding their range of cooked meals for small households and time-constrained consumers. In this category beef is often used for roasts, curry, and marinated stir-fry dishes, as well as steaks. The foodservice channel is also very diverse with many opportunities. Fast food chains (hamburgers and gyudon beef rice bowls) are volume outlets for brisket and manufacturing beef, while family restaurants and fine dining use a range of cuts. Yakimiku (Japanese/Korean style barbecue) restaurants are some of the largest customers for beef offal products. **Overall beef, pork and poultry consumption continues to grow due to versatility and a gradual shift away from more expensive seafood.**

South Korea

New Zealand exports to South Korea are, as in Japan, struggling against US and Australian product. In addition, Canada has just improved its market access again after BSE-related restrictions. Total imports have continued to increase, but New Zealand's share has declined. Higher imports have been driven by consumption steadily increasing and Korean cattle numbers having been in cyclical decline since 2012.

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WOOL

Wool prices should pick up after starting the season on the back foot. To what degree depends heavily on the strength of the NZD and buyer interest from China.

At the finer end of the clip, prices are expected to be supported by lower Australian supply, a pick-up in US woollen apparel demand, and continued demand growth for luxury items within China.

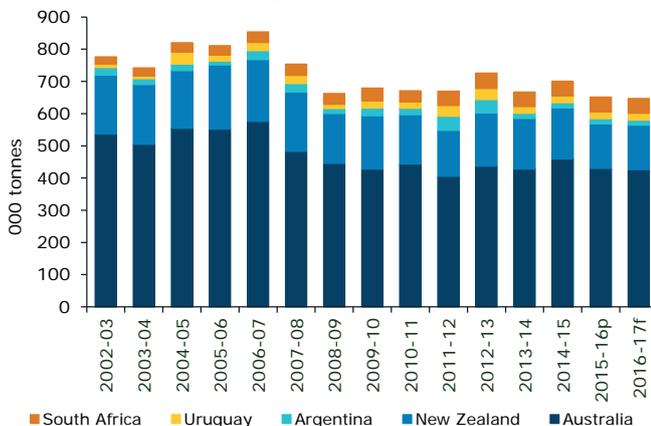
At the coarser end of the clip, demand looks fairly steady. US import demand for woollen floor coverings has lifted off its post-GFC lows over the last two years as housing and construction market activity has started to increase. In China the housing market may have peaked in the second quarter of 2016. However, in the longer term the 1st and 2nd-tier cities will continue to provide demand growth for high-end household furnishings such as woollen carpets. One headwind is depressed cotton and polyester prices, which has stretched price relativities, providing a cap on any upside for USD wool prices.

We expect in-market prices to hold up due to constrained supply and steady demand. As long as the NZD heads back toward 0.70 this should support farm-gate prices, albeit not quite at the levels achieved in 2015/16.

GLOBAL SUPPLY SITUATION

Provisional estimates suggest wool exports from the major exporting countries dropped 7% in 2015/16. Some stability is expected to emerge in 2016/17 as production appears not to have fallen by the same extent as exports in 2015/16. This implies some inventory build, which could emerge on the market at some point.

FIGURE 20. WOOL EXPORTS FROM MAJOR PRODUCING COUNTRIES



Source: ANZ, ABARES

The other driver of more stability in tradable supply is expectations Australian production will decline by only 1% in 2016/17. This follows a 7% decline in 2015/16. Australia accounts for around 40% of global wool exports and an even larger proportion of finer micron wool. In fact around 82% of Australia's wool is below 24.5 microns.

The fall in 2015/16 production reflected a 5% fall in the number of shorn sheep and a 2% drop in average fleece weights, due to unfavourable seasonal conditions. The forecast for 2016/17 reflects a slightly lower number of sheep shorn again, but this is offset by higher average fleece weights due to better seasonal conditions in Western Australia and parts of New South Wales.

Domestically New Zealand wool exports fell a substantial 13% to 103,000 tonnes (clean) in 2015/16. However, total production is expected to have dropped only 3.5% y/y. The gap between production and exports over recent years, as well as the size of the difference between the two in 2015/16, implies some mild inventory increase.

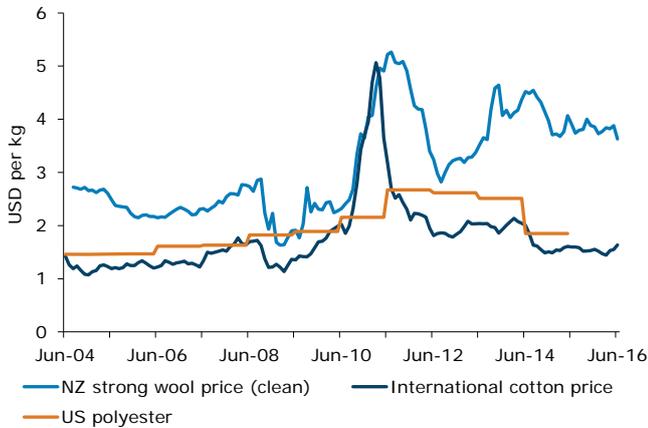
Looking forward, total wool production is expected to slip a further 2.8% to 145,400 tonnes in 2016/17. The reduction is primarily due to lower sheep numbers and slipe production dropping, given reduced lamb and ewe turnoff. Average fleece weights are likely to provide some offset to lower sheep numbers. Lower stocking rates and more normal seasonal conditions in the main producing regions should both help. Refer the sheepmeat section (page 10) for more information on the key drivers of lower sheep numbers and production.

COMPETING FIBRES

Wool is now considered a niche product in the global textiles manufacturing industry. Synthetic fibres and – to a lesser extent – cotton account for the bulk of fibre consumed. Wool is mainly used in higher-valued textile and clothing products. **Current manufacturing technology supports a degree of substitutability between different fibres, and the degree of substitution is influenced by relative prices.** As the chart below shows, major movements in cotton prices have led to swings in both directions for strong wool prices.

FEATURE ARTICLE: FARM-GATE PRICE OUTLOOK

FIGURE 21. STRONG WOOL VS. COTTON/POLYESTER PRICES



Source: ANZ, Wool Services International, World Bank

In USD terms the last 12 months have seen fairly stable cotton and strong wool prices.

This has kept the price ratio of strong wool to cotton around 2.5. This seems to be the upper bound in the current environment, with the long-run average ratio sitting around 2.0.

Cotton prices are expected to be slightly lower in 2016/17. This is due to expectations production will be higher than consumption in countries outside China, leading to increased inventory, and China's stock situation remaining burdensome despite a second year of decline, and finally, low polyester prices providing competition.

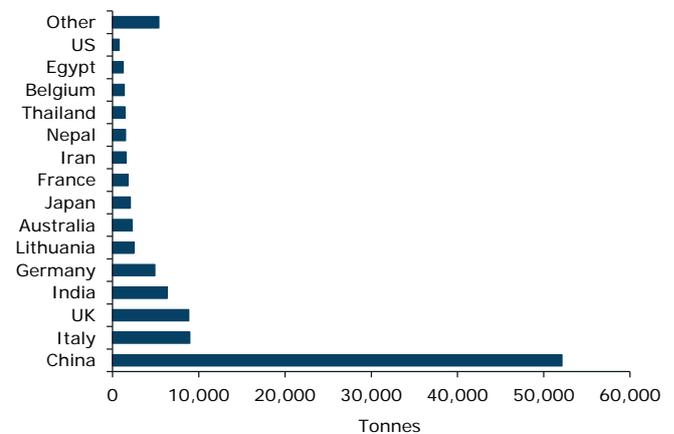
Chinese cotton stocks are forecast to fall significantly as the Government has pursued policies that have discouraged production and have placed limitations on imports in order to dispose of surplus government-held stocks. But outside of China, stocks are expected to rise with production rebounding. The increase in production largely reflects improved yields following unfavourable seasonal conditions in 2015/16.

Low cotton and polyester prices, as well as current price relativities with wool being at the upper bound, are likely to limit the upside for USD wool prices.

END MARKETS

New Zealand's main wool export destinations remain China and Europe. They accounted for 80% of total volumes in 2015/16. While the majority (51%) of our raw and intermediary woollen products are sent to China, many of the finished products produced in China will end up in the United States too. **China is also an important driver of global end demand for woollen textiles and apparel,** with domestic consumption estimated to account for more than half of China's finished production.

FIGURE 22. TOP 15 WOOL EXPORT DESTINATIONS



Source: ANZ, Beef + Lamb NZ

At the finer end of the clip, most of New Zealand's product is being sold via private channels and through long-term contracts connected to an end brand/retailer. These contracts provide a more stable pricing environment and premium step-ups for meeting certain standards and quality dimensions. More of New Zealand's coarse wool is also being channelled into similar marketing programmes to help improve returns. Such contracted programmes are helping to reduce the fragmentation in reaching the final consumer, improving information and price feedback from retailers and manufacturers, and repositioning wool as its own category with distinctive features compared with alternatives.

More generally, outside specific contracted programmes for wool, end demand appears to have improved, led by the US and continued demand growth within China.

At the finer end of the clip, in-market prices have been supported by lower Australian supply, a pick-up in US woollen apparel demand and continued demand growth for luxury items within China. US imports of woollen apparel have increased 15% over the last two years, the best period of growth since the early-2000's expansion fuelled by improving disposable income, buoyant labour market conditions, high consumer confidence and lifts in asset prices.

In China apparel sales continue to grow at double digit rates too, despite slowing economic growth.

A recent Australian wool company report noted China will provide even more opportunities for 'premium' clothes in the future. The 'premium market' for clothing is defined as persons who traditionally spend about US\$2,000 per annum on clothes and have a household income of more than US\$125,000 per annum or US\$100,000 in China.

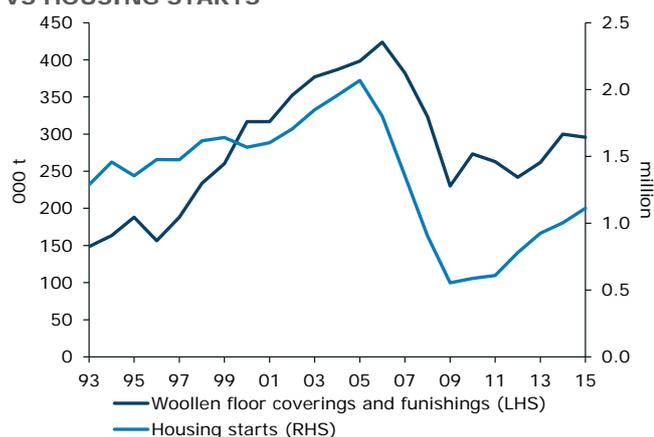
FEATURE ARTICLE: FARM-GATE PRICE OUTLOOK

According to recent research, this segment makes up 9% of the global population and it is concentrated largely (85%) in three geographical areas: North America, Western Europe and affluent Asia (e.g. Japan, South Korea, Hong Kong, Singapore). China is currently only a very small proportion of this market, contributing just 1%.

But even given moderate growth for China over the next 10 years, the number of consumers defined as the 'premium market' would lift from 1% to 6% of the global population, adding a staggering 20 million extra consumers with a household income of more than US\$100,000. Affluence combined with a cooler climate provides plenty of opportunities for premium wool products.

At the coarse end of the clip, end demand looks fairly steady. Together with constrained supply this should support in-market prices.

FIGURE 23. US WOOLLEN FLOOR COVERING IMPORTS VS HOUSING STARTS



Source: ANZ, USDA, Bloomberg

US import demand for woollen floor coverings has lifted off its post-GFC lows over the last two years. The US housing market has been slowly improving since 2009, albeit in fits and starts. However, over the last two years, housing activity and new builds have begun to accelerate. The US is the largest importer of wool floor coverings and New Zealand strong wool is estimated to be used in 45% of all wool carpet consumed in the US.

Looking forward, low interest rates, low vacancy rates, demographics, an improving labour market, and valuations metrics such as prices to household incomes or rents are supportive of housing activity returning to more normal levels over coming years (i.e. more consistent with long-term household formation rates of around 1.5m annualised). This should bode well for end demand.

In China the housing market may have peaked in the second quarter of 2016. The surge in property prices in the past few quarters was mainly driven by policy easing. However, momentum has cooled in some cities as authorities become wary of potential asset bubbles. Authorities have started to tighten policy (i.e. window guidance on property-related lending).

Divergence between regions will continue as house prices in 1st-tier cities remain relatively firm, but prices in 3rd and lower-tier cities may face downward pressure in the near term. In addition, our China team don't expect an aggressive monetary policy easing this year, which will likely moderate property investment.

In the longer term, we expect housing markets in the 1st and 2nd-tier cities to continue to expand, driven by these areas having the highest share of mid-to-high income households. **These households should provide continued demand growth for high-end furnishings such as woollen carpets.**

DEER

Tight New Zealand venison production is expected to support farm-gate returns at multi-year highs in 2016/17. The industry has also had some success in growing demand in non-European markets and products/channels outside the game season in more traditional markets. This provides plenty of inter-market competition and allows average returns to be optimised with tight supply. Tight supply has also increased procurement pressure on meat processors.

The main headwinds are currency-related, with a low euro and GBP, as well as widening price margins with other meat proteins. Overall we expect farm-gate pricing for 2016/17 to average \$7.60/kg (+6%), with the strong returns for this year's game season in Europe providing plenty of confidence.

Velvet prices finished the season at similar levels (\$125/kg) to the year before. There was some in-market price pressure with increased New Zealand supply, a softer Chinese economy and food companies who use velvet in health products looking to recoup lost margins. However, this was offset by the lower NZD/USD (from highs). Prospects are for a slight softening in farm-gate prices in 2016/17 with production set to push through 600 tonnes.

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NEW ZEALAND SUPPLY

New Zealand's venison production fell away sharply post the end of last year's European game season. Herd rebuilding appears to have begun after 13 years of decline. Combined with a more aggressive reduction in hind numbers since 2014, which lowered weaner numbers 12% in two years, this saw production fall 15% to 337,000 head in 2015/16.

FIGURE 24. NEW ZEALAND BREEDING HIND NUMBERS AND PRODUCTION



Source: ANZ, Statistics New Zealand, DINZ

Herd rebuilding appears to have been prompted by improved velvet and venison returns and farmers seeking alternative options to below-par sheepmeat returns and fewer dairy support contracts, with lower prices. The decline in hind numbers in recent years appears to have been triggered by farmers changing land use and dropping hind numbers to finish a larger proportion of animals instead of selling them through the store market. This is owing to reduced finishing capacity from the continued expansion of dairying – up until the last 18 months. Poor seasonal conditions in some parts of the country, such as North Canterbury – a major breeding region – have also played a part.

Expectations are for another, smaller, decline in production 2016/17, driven by lower weaner numbers entering the 2016/17 season and herd rebuilding continuing. The number of animals available (weaners) for turnoff will only begin to increase once more in 2017/18. There could be a larger fall in production in 2016/17 if pasture conditions on the East Coast of both Islands were to improve, especially in the Canterbury region, which holds about a quarter of the breeding herd.

IN-MARKET DYNAMICS

Through the course of the 2015/16 year lower supply has helped reduce frozen inventory levels, supporting higher prices. In addition,

chilled prices have been supported by better demand for quality game meats in Europe and expanding alternative markets (i.e. North America and wealthier parts of Asia). Some European buyers who had sourced alternative lower-quality, cheaper game meat in recent years have returned for quality and consistency reasons, improving demand. Combined with lower chilled production, this has improved pricing.

Frozen leg and shoulder prices had been slower to improve, but the lift in chilled pricing over the last two game seasons and lower inventory levels have been the catalyst for a sustained shift higher in recent months.

In terms of end markets European names still dominate, but an increased focus on non-European markets and products/channels outside the game season in more traditional markets has had some success.

European names continue to account for 75% of returns and 70% of volumes. Germany tops the list, followed by Belgium, the Netherlands, Switzerland and the United Kingdom. **Outside of Europe, the United States is the second-largest market** and further down the pecking order are Canada, China, Singapore and Australia.

TABLE 2. TOP 15 NEW ZEALAND VENISON MARKETS

	Volume (tonnes)			NZD FOB million		
	2015	2016	% change	2015	2016	% change
Germany	4,703	3,781	-20%	51	49	-4%
United States	2,290	2,600	14%	23	29	26%
Belgium	1,533	1,167	-24%	22	19	-14%
Netherlands	1,156	860	-26%	19	19	0%
Switzerland	964	695	-28%	15	14	-7%
United Kingdom	1,342	1,202	-10%	12	13	8%
Finland	1,312	975	-26%	9	8	-11%
France	260	337	30%	4	6	50%
Sweden	458	490	7%	4	5	25%
Canada	373	414	11%	4	4	0%
China	140	689	393%	1	4	300%
Austria	143	252	76%	1	2	100%
Italy	166	243	46%	2	2	0%
Singapore	121	105	-14%	2	2	0%
Australia	122	49	-60%	1	1	0%
Other	483	365	-24%	4	5	25%
Total	15,565	14,224	-9%	174	182	5%

Source: ANZ, Statistics NZ

FEATURE ARTICLE: FARM-GATE PRICE OUTLOOK

New Zealand venison exports experienced a decline in market share in 2015/16 across all the top European destinations, apart from the United Kingdom. That's not a disaster if prices compensate, and of course it must be remembered that exportable volumes were down in the first place. However, many saw volumes drop 20-30%, whereas overall exports declined by only 9%. The currency played a part with the relatively weak euro making Europe a less attractive destination compared with USD-priced markets. Interestingly, in-market prices responded, with the likes of Germany (11%), Netherlands (25%), Switzerland (20%), the UK (11%) and Finland (11%) all seeing double-digit gains.

In non-European markets the US was the most impressive. Volumes increased by 14% to 2,600 tonnes and overall export returns lifted 26% to \$29 million. The market continues to evolve to take a wider range of cuts for different end uses/products. The additional boost to NZD returns came from a lower NZD/USD, with in-market prices down 5% due to a change in product mix. Higher demand has been stimulated by the recovery in economic activity (see beef and sheepmeat market updates for more detail) and a refocusing of marketing activities from broad advertising and promotion to targeted support of sales staff in the field (i.e. educational promotion to show how to prepare and use venison).

Chinese volumes increased sharply as momentum increased post processing approvals being granted in 2014. **However, average returns are the lowest of all the major markets, suggesting it is only lower value cuts and offal that is currently being sent.** Volumes and values could increase further with the new Silver Fern Farm partnership (largest venison exporter) improving its distribution channels.

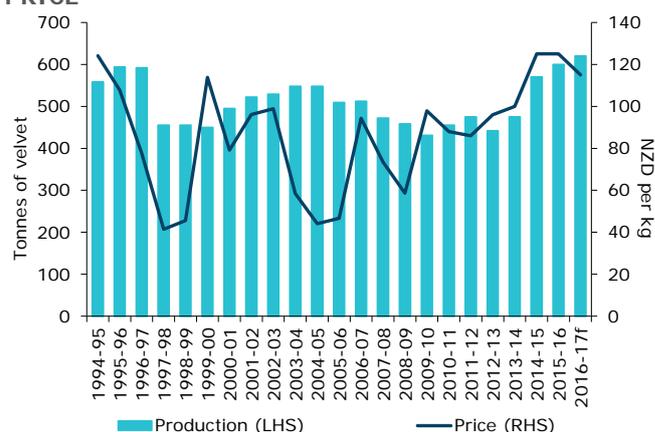
The one area venison exporters will need to watch in all major markets is the margin between venison and competing meat protein prices. This has widened, with price falls for other meat proteins contributing just as much as venison price lifts. Should the gap continue to widen, we may see restaurateurs re-examining their margins and contemplating lower-priced protein alternatives. This will require more promotional activity to ensure restaurateurs retain venison on their menus.

The other challenging market in 2016/17 could be the United Kingdom with Brexit having currency impacts and reducing demand for high-priced meats such as venison, if – as expected – the economy experiences a rough patch growth-wise.

VELVET

Velvet prices finished the season at similar levels (\$125/kg) to the year before. There was some in-market price pressure with increased New Zealand supply, a softer Chinese economy and companies who use it in health products looking to recoup lost margins. However, this was offset by the lower NZD/USD.

FIGURE 25. NEW ZEALAND VELVET PRODUCTION AND PRICE



Source: ANZ, DINZ

Production continues to slowly increase after taking a step-up in 2014/15. Around 70% of product is still sold via the commodity channel, but there are continued efforts to increase share in the functional food category. Success in this endeavour will be important for farm-gate returns given supply is set to expand further in 2016/17.

Prospects are for a slight softening in farm-gate prices in 2016/17 with production set to push through 600 tonnes.

FEATURE ARTICLE: FARM-GATE PRICE OUTLOOK

GRAINS

Trading activity and prices for the domestic grain market are very depressed. Prices are being weighed down by lower dairy demand, high local stocks and low international prices. Trading activity has been very low, with most growers unwilling to sell at unprofitable prices. They appear to be prepared to wait until either prices rise or they are forced to sell before the next harvest arrives.

Dairy demand could pick up given an improved outlook for the milk price, depending on how weather and pasture conditions evolve. Domestic supply could tighten quickly with growers having planted less feed grain in the winter/autumn and there are low spring planting intentions.

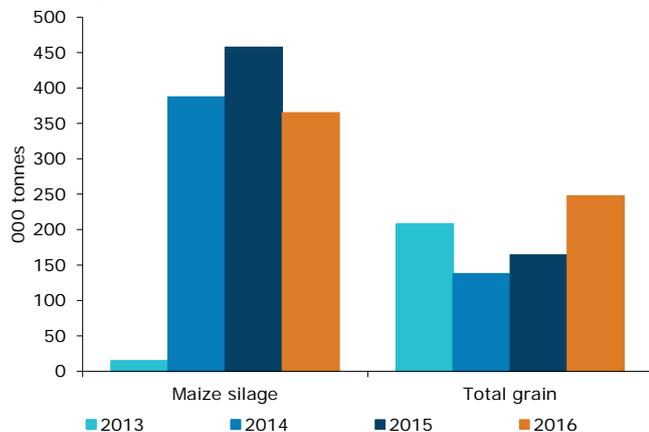
But while these factors could drive an improvement in prices at some point, international grain prices look biased even lower, due to high stocks and crop yield expectations for key Northern Hemisphere producers/exporters. Combined with an elevated NZD and low shipping costs, imported product will remain competitively priced, capping any upside in domestic grain prices.

DOMESTIC SUPPLY SITUATION

The domestic feed grain market is currently oversupplied.

With farmers intending to scale back the growing area for 2017 this could turn around if we see a dry summer period and/or a sustained lift in dairy prices. Growers are scaling back the grain and silage growing area for 2017 due to current low prices, a lack of buyers willing to forward commit to contracts, and high unsold stocks heading into the spring.

FIGURE 26. UNSOLD GRAIN AND MAIZE SILAGE AT 1 JULY

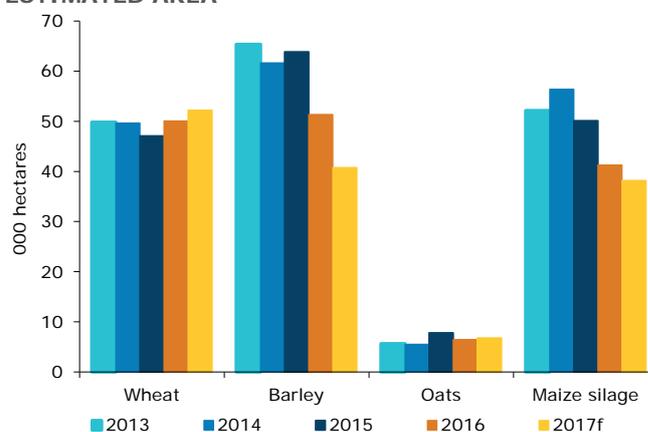


Source: ANZ, Arable Industry Marketing Initiative

The recent arable survey showed total unsold grain stocks at 1 July at 248,000 tonnes (23% of 2016 production). This is nearly 78,000 tonnes (15%) higher than recent years. Maize silage stocks were not quite so burdensome compared with recent years, but still high at 365,000 tonnes, or 42% of annual production.

The outlook for supply is lower due to the anticipated reduction in the growing area. The area sown in autumn/winter wheat and barley was down 5% on last year. Combined with low spring sowing intentions, **the area sown in wheat and barley is anticipated to be down by 8% on last year and a large 17% compared with 2015.**

FIGURE 27. NATIONAL CROP HARVEST – ESTIMATED AREA



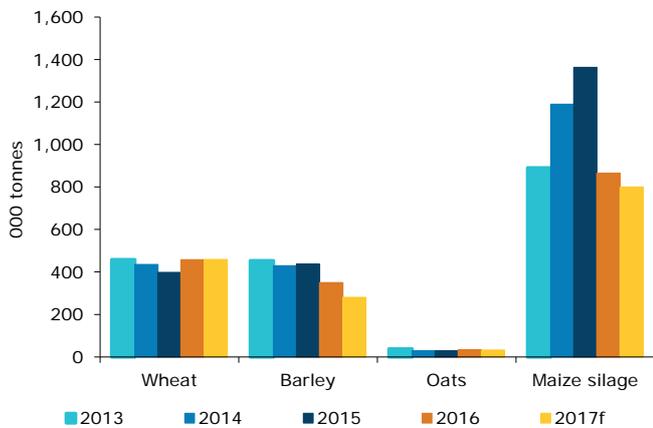
Source: ANZ, Arable Industry Marketing Initiative

Over the two-year period from 2015 to 2017, the harvest area for feed barley is projected to decrease by 41%, while the harvest area for feed wheat is forecast to remain fairly constant (a 4% decrease). Conversely, the harvest area for milling wheat is predicted to increase by 55%, but this is from an unusually low level, so anticipated sowings are now back to a level similar to the 2011 to 2014 harvests. **It's a similar story for maize grain and silage.** As at 1 June 2016, maize grain sowing intentions were down 36% y/y and maize silage 8% y/y.

If an average growing season occurs this suggests overall grain production in 2017 will be 158,000 tonnes lower than 2016. Maize silage production would be 65,000 tonnes lower. This suggests if demand were to pick up, the current overhang of grain from the 2016 harvest could be required at some point.

FEATURE ARTICLE: FARM-GATE PRICE OUTLOOK

FIGURE 28. NATIONAL CROP HARVEST BY FEED TYPE

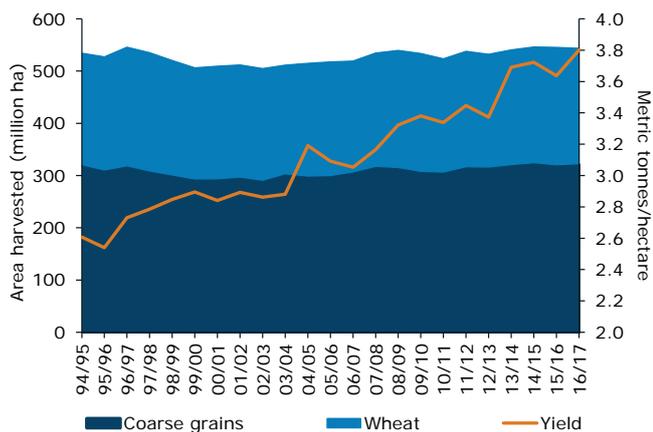


Source: ANZ, Arable Industry Marketing Initiative

INTERNATIONAL SUPPLY SITUATION

International feed grain markets are expected to remain oversupplied in 2016/17 too, placing further downward pressure on global benchmark prices. Ending stocks from 2015/16 are high and these are expected to be accentuated by larger crops in key growing and exporting countries. Consumption should improve, driven by increased animal feed use and human consumption in emerging countries. Industrial use for the likes of ethanol production in the US is expected to be relatively stable. The increase in consumption won't be enough to offset supply increases though, which will further add to already burdensome stocks.

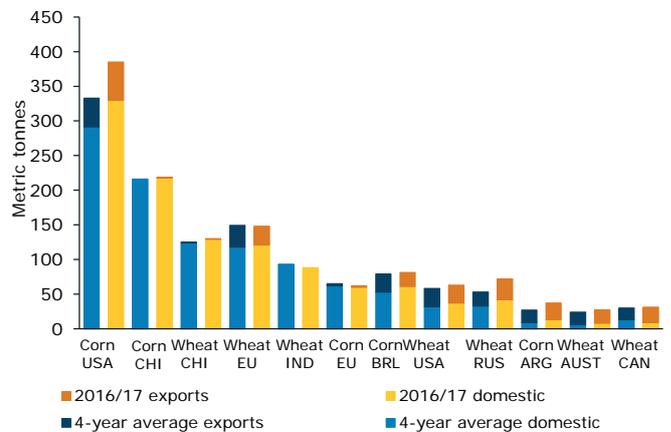
FIGURE 29. GLOBAL GRAIN GROWING AREA AND YIELD



Source: ANZ, USDA

In the latest USDA forecasts of global production, both corn and wheat were increased to new records. Good growing conditions in key regions are expected to boost average yields to record highs. The overall harvested area is forecast to be only slightly lower (-0.4%) than the records from the prior two years.

FIGURE 30. MAJOR GRAIN CROPS

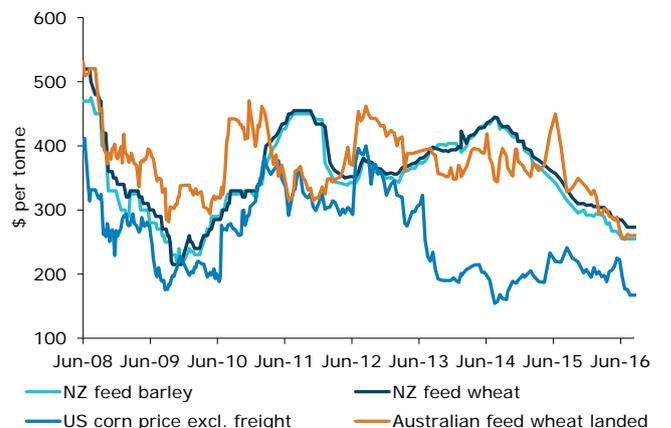


Source: ANZ, USDA

Larger corn crops are expected in Argentina, India and the US, offsetting reductions in Canada and the European Union. **This lowers the USDA's 2016/17 corn price forecast to US\$112-135/t, with the mid-point 13% below the price achieved the year before.**

For wheat, a record crop in Russia as well as larger crops in Australia, Canada, Kazakhstan, Ukraine and the US more than offset the significant decline in the European crop and a slight reduction in Argentina. **This lowers the USDA's 2016/17 wheat price forecast to US\$123-149/t, with the mid-point a significant 24% below the price achieved the year before.** In Australia expectations are for up to a double-digit fall in prices too. The spread of international prices to current domestic prices isn't great, but the trends are clear.

FIGURE 31. NEW ZEALAND VS INTERNATIONAL GRAIN PRICES

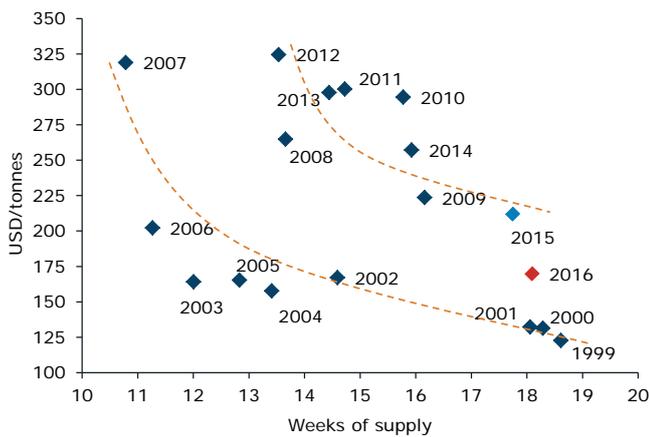


Source: ANZ, AgriHQ, USDA

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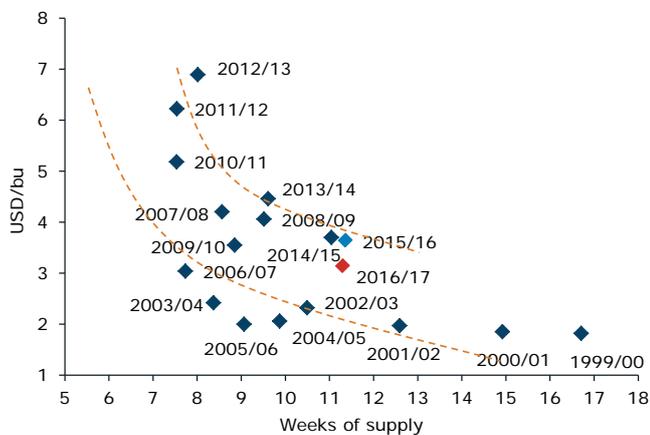
Even if final crop yields for the likes of US corn don't turn out to be quite as good as currently anticipated, end stocks of both wheat and corn are at all-time highs on an absolute basis. On a stock-to-use basis, or weeks of supply, both are at highs not seen since the early 2000's. This will keep prices pinned down for some time. It's just a matter of how low they go, which will depend on upcoming crop harvests in the Northern Hemisphere.

FIGURE 32. GLOBAL END STOCKS TO USE WHEAT



Source: ANZ, USDA

FIGURE 33. GLOBAL END STOCKS TO USE CORN



Source: ANZ, USDA

DOMESTIC DEMAND SITUATION

Trading activity for domestic feed grain has been subdued since early 2016, with a stand-off between buyers and sellers. Most growers have been unwilling to sell at prices below the cost of production and near post-GFC lows. They appear to be prepared to wait until either prices rise or they are forced to sell before the next harvest arrives. Most buyers of feed grain have been waiting to see what happens to the milk price, global prices and seasonal conditions heading into spring. At present the milk price is biased higher and seasonal conditions have been cool and wet in many regions. Both seem likely

to lift demand from what has been very subdued levels.

The three main domestic livestock sectors that account for the lion's share of grain demand are pork, poultry and dairy. In the compound feed market, poultry (57%) followed by dairy (21%) and pork (14%) are the three largest buyers.

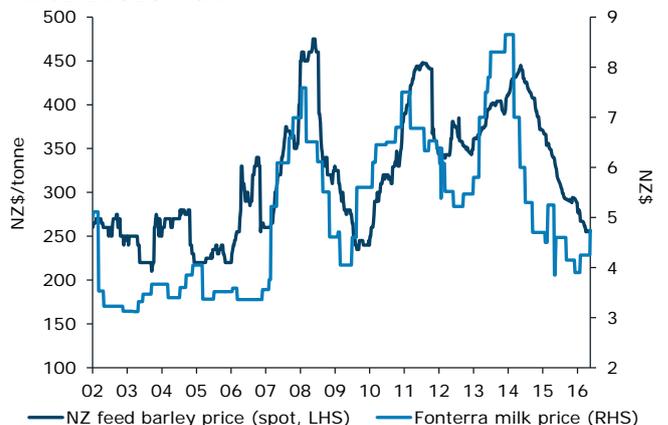
On a long-term basis domestic pork production and feed demand has been fairly stable. This isn't expected to change much in the near term despite intense competition from cheaper imports and poultry products.

Structurally, dairy and the poultry industry are the two sectors that have lifted feed demand in New Zealand since 2009. Poultry demand is expected to continue to increase and dairy will swing with milk price and seasonal conditions.

Domestic poultry meat production has been growing around 6% per annum over the last five years, increasing feed demand. The layer flock appears to have lifted by a similar amount over this period too. Growth looks set to continue with the likes of Tegal looking to establish an export business into a number of markets. However, the larger poultry businesses – where expansion is occurring – source much of their feed from the international market.

Dairy provided an upswing in demand post-GFC through intensification and increasing cow numbers. However, this trend has reversed with the downturn in farm-gate returns. Cow numbers have dropped 5-6% in two years and there is a bigger focus on home-grown feed and pasture management to lower the cost of production. Demand is still likely to swing with seasonal conditions and the milk price. Both indicators look more favourable heading into the spring.

FIGURE 34. MILK PRICE AND FEED BARLEY GRAIN PRICE EVOLUTION



Source: ANZ, AgriHQ



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KIWIFRUIT

Green kiwifruit prices have come under pressure from higher New Zealand volumes and a bounce-back in Chilean supply, as well as new initiatives improving their quality standards. High volumes have seen New Zealand conduct crop management to maintain high quality standards and market premiums. Long-term green volumes are expected to be steadier around the low-80 million tray mark, which with an improved marketing mix more targeted to Asia should support returns in the \$4.5 to \$5.0/tray range.

The industry's expectations of Gold3 returns have been re-rated higher. This was reflected in the hot demand for the new licenses released for grafting this year and current orchard prices. Further volume growth to 60 million trays is expected over coming years, driven by an expanded growing area, improved crop management and earlier-grafted canopies reaching full maturity. This will see the industry continue to focus on building new demand through marketing initiatives. The success of a new distribution/marketing model into China will be critical, as well as a focus on consistent quality and service to ensure New Zealand has the leading global Gold variety. All up orchard-gate returns look like they will be still above \$8/tray for 2016, but there is likely to be some moderation into 2020 from a changing market mix.

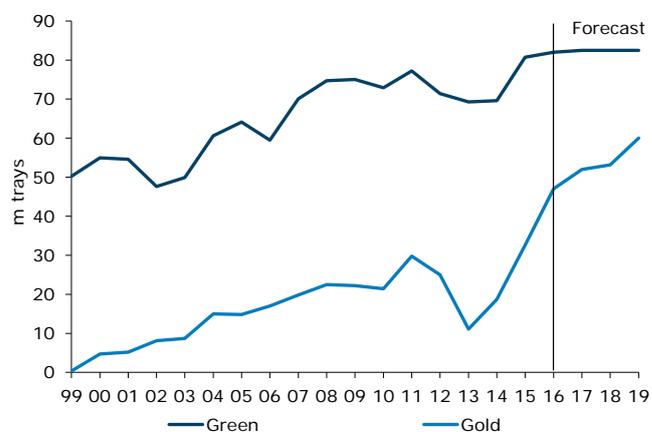
NEW ZEALAND KIWIFRUIT SUPPLY

New Zealand kiwifruit supply is set to grow toward 150 million trays by 2020. At current export returns this would take total returns well above \$2.0 billion (from \$0.9 billion in 2013).

This is a huge lift from current production of 134 million trays in 2016 and the Psa-induced low of 87 million trays in 2013.

Within this there is set to be a change in product mix to Gold3 (marketed as SunGold) away from the traditional varieties (Hort16A and Hayward Green). The first volumes of Gold3 hit the market in 2014 and have continued to grow. In fact the average yields and prices achieved so far have exceeded expectations, leading to future return expectations being adjusted higher. Its success factors include high yield, beaklessness, large size, attractiveness to bees and a more robust skin, all helping with harvesting, packing and storage ability. At the consumer end its sweet taste is well suited to Asian markets, which are the highest returning.

FIGURE 35. NEW ZEALAND KIWIFRUIT SUPPLY



Source: ANZ, Zespri

Overall Green volumes look like they will stabilise around the low 80 million trays mark.

Short term there could be an increase in the Green growing area as growers plant Hayward Green vines in anticipation of future conversion to Gold3, or another new cultivar. Improved orchard practices, especially in response to Psa, continue to lift average yields across the industry too. However, higher yields haven't played out in the industry's favour this season, with the need for crop management in order to maintain quality and price premiums for Zespri-branded products. The taste standards for Green product have also been changed (an increased dry-matter content requirement) this season in response to the latest consumer research. This has been required to ensure a quality eating experience each time, with much of the Zespri model built around repeat purchasing. This highlights industry tension between a volume and premium game in determining overall grower revenues.

The Gold crop is set to increase to 60 million trays by 2020. This is a large increase from 47 million trays in 2016 and the Psa low. Medium-term Gold returns seem to have been re-rated with orchard-gate returns holding above expectations as supply has increased from the Psa-induced low. In fact the success of the new Gold variety is highlighted by the fact that returns are anticipated to average in the low \$8/tray range over the 2015/2016 crops with average volumes of 39 million trays. This is a higher volume of Gold than pre-Psa, yet returns are \$2.70/tray superior. While there has been an aggressive marketing program to establish Gold3's reputation, which has come at an extra cost, all its other strengths noted above are contributing to its success too.

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Looking forward, the growth in volumes will come from an expanded area, improved orchard management as further experience is gained, and earlier grafted vines/canopies reaching full maturity. The strong interest in new licenses to expand the growing area was reflected in a median price of \$200,000/hectare and total successful bids of 266 having to be scaled back from over 1000. This, along with early forecasts that orchard gate prices for the 2016 will average \$8.20/tray, and the added incentive of the KiwiStart programme for early season high-quality fruit, suggests strong interest will continue.

There are inherent risks for any new product though. Central to the marketing strategy and success of Gold3 is achieving high dry matter content to maintain taste standards. New taste settings will be introduced in the coming seasons. Gold3 is a new variety and while much has been learnt to date, teething problems can still occur as growers understand and adapt to optimal management techniques, delivering early supply and appropriate storage/shelf life.

INTERNATIONAL SUPPLY

There is expected to be strong growth in the supply of Zespri-branded non-New Zealand produced fruit in countries such as Italy, France, Japan and South Korea into 2020. This is expected to fill the shoulders of the season for New Zealand supply, maintaining retail shelf space and continuing to provide customers with product all year round. With expanding domestic supply and increased volumes into markets such as China, more counter-seasonal supply is required. Current offshore Green production is 9.7 million trays and Gold 3.9 million trays. Green volumes are expected to reach 14 million trays in 2020, while Gold volumes (primarily Gold3) are expected to reach close to 17.4 million trays in 2020.

In terms of direct competition Chile remains the one to watch. Chile continues its recovery from Psa and severe frosts in 2014. Chile's performance this season matches that of the previous season, which was well above that of 2014. Longer-term the Chilean Kiwifruit Committee has implemented new taste standards to try to compete with New Zealand product.

Increased competition from the Northern Hemisphere on the shoulder of the season is expected too as major producers enjoy favourable weather conditions. Italy, the largest kiwifruit-exporting nation (primarily of the Green variety), increased production in 2015/16 by an

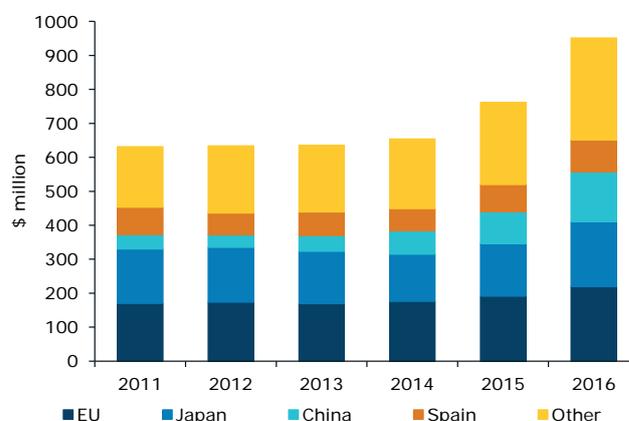
estimated 18% due to favourable weather and increased production area. Greece continues to perform well with substantial gains in the European market from 2014/15; more production is in the pipeline too.

Adding to the competition is European fruit that has been displaced by the Russian food import bans. Greece and Italy exported a combined 47,000 tonnes of kiwifruit to Russia (2013-2014 average) in the years leading up to the ban, approximately 10% of their exports. Greece has managed to place its crop into the European market, while Italy is looking to emerging kiwifruit markets such as India.

China is the world's largest kiwifruit producer, but most of it is for local supply. **Zespri has ambitions to make this New Zealand's largest market. It anticipates selling some 34 million trays by 2020, which would be close to 20-25% of the total crop.** This means it will be a critical market in determining future returns. Zespri has had its fair number of challenges in China, meaning nothing should be taken as a sure bet. The largest challenges would appear to be local competition, counterfeit product, regulatory issues and getting the distribution/marketing model right. In this regard Zespri have changed their marketing/distribution model to what has been used in other markets, so it will be interesting to see if it can work in China too. Local supply won't be able to compete with the quality of New Zealand produce in the short term, but could do so in the future as better orchard management practices and grading standards are more widely adopted. They have managed to do this with other horticultural crops in recent times.

IN-MARKET DYNAMICS

FIGURE 36. TOP GREEN KIWIFRUIT MARKETS



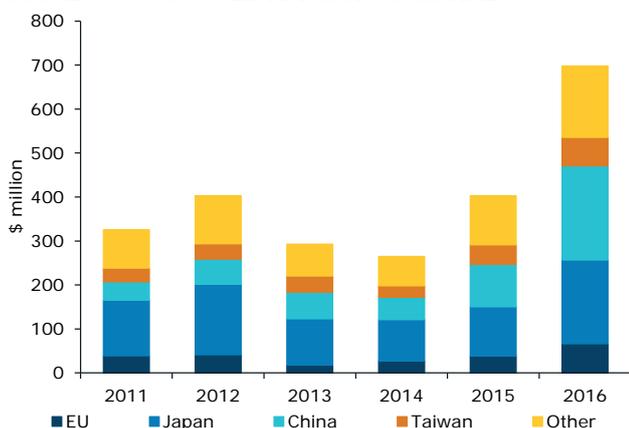
Source: ANZ, Statistics NZ

FEATURE ARTICLE: FARM-GATE PRICE OUTLOOK

Demand growth for Green continues at a steady 4% per annum. The current down-swing in prices is being driven by higher-than-expected New Zealand supply and increased Chilean competition compared with their 2014 frost-affected crop. Exceptional yields for the 2016 crop led the industry to conduct crop management of 5.3 million trays and there could be a need for more yet to maintain premiums. This, combined with a strong NZD (particularly the NZD/JPY) is expected to push returns toward the low-\$4/tray range in 2016. Longer term the industry is aiming for returns around \$4.5 to \$5/tray. To achieve this there will continue to be a big focus on optimising yields and the taste profile of fruit.

Long term, with steadier volumes of Green to be produced, it will be all about optimising returns. This is expected to see growth in market penetration into China and South-East Asia, and lower volumes to Europe. Japan is still the highest-returning market for Green, followed by China/Hong Kong. Europe is the largest market, but orchard-gate returns are lower than Asian markets. Higher market penetration into China, Japan and South-East Asia will help the marketing mix, as well as provide more price tension for Europe. For Green, the taste is an important differentiator for New Zealand's offering, supporting a price premium above Chinese and Chilean product. However, given its greater commodity nature, this can only be pushed so far.

FIGURE 37. TOP GOLD KIWIFRUIT MARKETS



Source: ANZ, Statistics NZ

It's a similar story for Gold, with average returns being tested by higher volumes. Current guidance for the 2016 crop is in the low \$8/tray range, which if achieved would be an impressive result. Taste settings were revised for Gold varieties in 2016 and will be enhanced further in 2017 to ensure quality standards and premiums are maintained. This is imperative to ensure the continuation of the initial market excitement and

ambitious (but not unachievable at first glance) growth expectations out to 2020. Substantial marketing costs will be incurred, but are critical to build market demand with expanding supply. As mentioned earlier, China will be critical. They too have invested heavily in new cultivars, which, if successful, could divert buyer attention from Gold3 and more traditional varieties.

PIPFRUIT

The pipfruit sector has had another very good export season, which will mark four years of very profitable returns. The majority of this year's crop has been sold at prices nearly 5% above the year before. Pricing for new, exclusive 'club' varieties continues to lead the way, but more traditional varieties have achieved higher prices in recent times too.

Asian markets continue to drive the growth in returns, accounting for 41% of volumes and 47% of returns. European markets have become less of a priority due to lower returns. General European market conditions have been more difficult due to fruit being displaced by the Russian sanctions, weaker currencies and competition from Polish, Italian and German fruit.

The sector's focus on competitive advantages created around brand presence, product quality, exclusivity of 'club' varieties aligned with Asian tastes, ability to meet strict non-tariff barriers such as phyto-sanitary requirements, and proximity to Asian markets are expected to keep delivering solid price premiums.

NEW ZEALAND SITUATION

Late last year we detailed in the December 2015 *Agri Focus* the New Zealand pipfruit sector. This included its newfound focus on key areas of competitive advantage and how these are driving a new period of expansion in the growing area – the first in 20 years. Key features included:

1. A **shift to a more vertically integrated structure.**
2. **Applying best-practice management** from the orchard right through the supply chain.
3. **A production system superior to competitors** that meets both the ultra-low spray residue requirements of European retailers and the restrictive quarantine requirements of Asia.
4. **New 'club' varieties with trademarked intellectual property and eating qualities preferred by Asian markets.**

FEATURE ARTICLE: FARM-GATE PRICE OUTLOOK

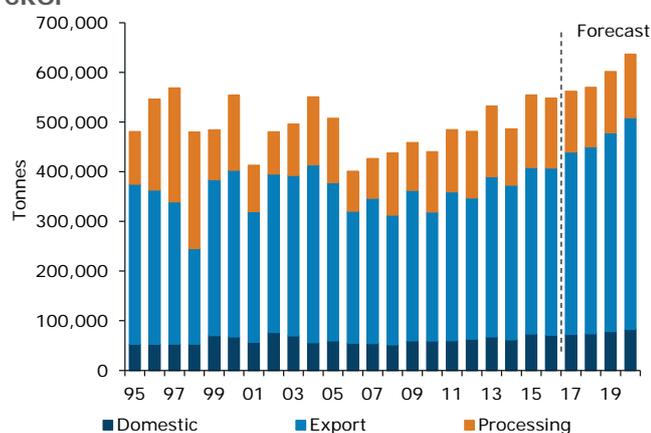
5. **New orchard design and management innovations.**
6. **An ability to consistently deliver superior quality pipfruit.**
7. **Brand presence, product quality, exclusivity of 'club' varieties, and proximity to Asian markets delivering price premiums.**
8. **Growth in regional trade with Asia, which offers significant transport advantages.**
9. **The recognised Seasonal Employer Scheme, which provides sufficient experienced overseas workers for jobs such as thinning and picking (labour being the major operating expense).**

This stronger focus on areas of competitive advantage enhances the sector's traditional strengths, including favourable climatic conditions for fruit growing in the Nelson and Hawke's Bay regions that have led to the highest yields globally, and counter-seasonal supply to the Northern Hemisphere.

The hard yards that sector participants have put in since deregulation and a period of back-to-back profitability for growers and other industry participants are now providing impetus for new plantings and expansion in the growing area. Combined with other changes in orchard design, adoption of new varieties and best-practice orchard management techniques, this is expected to see the annual New Zealand crop push toward the mid-600,000 tonne mark in 2020 (+25%).

So far it's been a gradual supply-side response to buoyant prices; we'd become more cautious if we saw a rapid ramp-up. History shows such supply-side responses can typically 'turn' the market; witness oil, iron ore and dairying in the previous few years.

FIGURE 38. UTILISATION OF NEW ZEALAND'S APPLE CROP



Source: ANZ, Pipfruit New Zealand

The vast majority of this increase is expected to be exported fresh. This is where the highest returns are expected. Changes in orchard management practices are reducing wastage and the production of second-grade fruit too. Currently, fresh exports utilise around 60% of the crop, with 25% going into processing for juice and canned fruit and the remainder to domestic fresh fruit sales. By 2020, the proportion of fresh exports is expected to move toward the mid-60% mark, which should see total exports increase toward 425,000 tonnes.

For the 2016 crop, exports are on track to register a 5% increase to 351,391 tonnes. While the overall crop was slightly smaller than 2015, more was packed for export due to the high returns on offer and good-quality fruit produced (high pack-out rates).

The reason for a smaller overall crop was that Nelson lost a significant amount of fruit (1.3 million TCEs, or 22% of the potential crop) in December due to a hail storm that affected the Motueka, Moutere, Mariri and Waimea areas. Many hail-damaged crops were not even picked for juice due to the severity of the damage.

However, the damage inflicted by the hail storm was offset by a heavier crop to start with in the Nelson area and a 9% increase in the Hawke's Bay crop. Despite it being a biennial bearing 'off' year for Hawke's Bay, a cold dry winter in 2015, followed by a rapid increase in temperature in October 2015 led to a compressed, high-volume flower blossoming. Then almost perfect growing conditions over the summer and autumn, especially in the Hawke's Bay, delivered a high-quality crop.

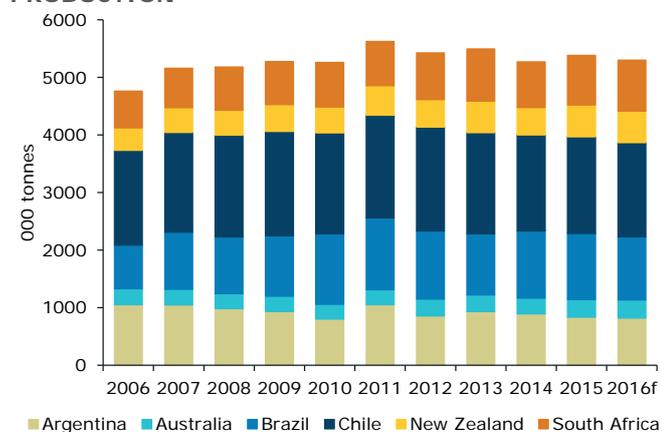
COMPETITOR SITUATION

Southern Hemisphere apple exporters – especially Chile, South Africa, and New Zealand – compete with one another to supply the counter-seasonal window into the Northern Hemisphere. Thus volatility in annual export prices in the Northern Hemisphere is driven by a combination of end-of-season stocks and supply availability from Southern Hemisphere growers.

The World Apple and Pear Association (WAPA) were forecasting the Southern Hemisphere crop to decrease by 2% to 5.3m tonnes earlier in the year. There was anticipated to be a 2.6% reduction in Chilean supply, but a 2.3% increase for South Africa.

FEATURE ARTICLE: FARM-GATE PRICE OUTLOOK

FIGURE 39. SOUTHERN HEMISPHERE APPLE PRODUCTION



Source: ANZ, Pipfruit New Zealand

However, more recent reports have suggested Chilean production was largely unchanged and exports have increased with a larger supply of new varieties destined for export markets, such as the United States.

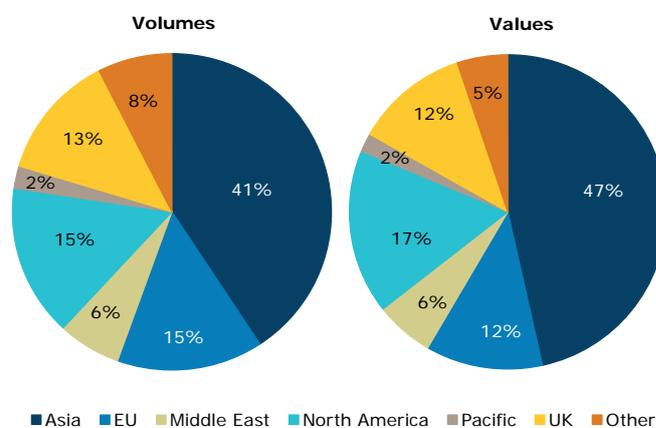
Northern Hemisphere end-of-season stocks were a lot higher than the 5-year average at the start of the selling season. Key markets such as the UK, Germany, France and Belgium (which re-exports too) were all carrying higher stocks. Braeburn stocks weren't overly high, but Fuji and Golden Delicious were. Over the course of the season stocks have fallen, but in general they have remained historically high.

In general, European market conditions have been more difficult due to fruit being displaced by the Russian sanctions, weaker currencies and competition from Polish, Italian and German fruit. The Polish crop is expected to be particularly large this year, and combined with the Russian market remaining shut, this will see increased competition in lower-value European markets and fruit that is outside a set marketing program.

EXPORT MARKETS

High-returning Asian markets, namely Greater China, Malaysia, Thailand, India and Singapore, have been prioritised over European markets. A changed product mix more aligned with Asian tastes; lower freight costs; a unique ability to meet non-tariff barriers such as quota restrictions, grade standards, fumigation requirements, disease requirements, additional product testing, and labelling/packaging rules; and increasing consumption in non-producing Asian markets are all combining to drive growth.

FIGURE 40. NEW ZEALAND'S EXPORT MARKETS



Source: ANZ, Statistics NZ

The changed market emphasis has seen Europe (including the UK) fall from 36% of export earnings five years ago to 24% now. Volumes exported have fallen from 39% to 28%. Other major exporting regions have been fairly stable, with North America and the Middle East both gaining a small amount of market share.

Looking further ahead, Asian markets are likely to continue to offer more opportunity as volumes increase. Current export prices are the highest of all major markets at \$43/TCE. This is 14% above the all-market average and a massive 43% above Europe. A consumption increase of just 0.75 kg/capita across non-producing pipfruit markets such as Thailand, Indonesia, Philippines and Malaysia would equate to New Zealand's total current export supply of fresh apples. Given consumption in these countries ranges from 1-4kgs per capita and the global average is 12kgs there would seem to be ample upside.

FEATURE ARTICLE: FARM-GATE PRICE OUTLOOK

VITICULTURE

A large 2016 vintage is not expected to create a supply imbalance. In fact an increase in supply was required after the small 2015 vintage and continued demand growth in North American markets created a deficit situation over the last 12 months. Looking forward, the Northern American and domestic markets are expected to remain buoyant over the next year, while Australia and the UK are likely to be tougher.

All up these dynamics are likely to see export prices remain fairly steady. This should provide continued support for grape prices, which have trended up slightly at recent harvests. Sauvignon Blanc grape prices are expected to push up towards \$1,800/t (over a 5% increase) for the 2016 vintage and then hold around similar levels in 2017. Other varieties are expected to be relatively stable.

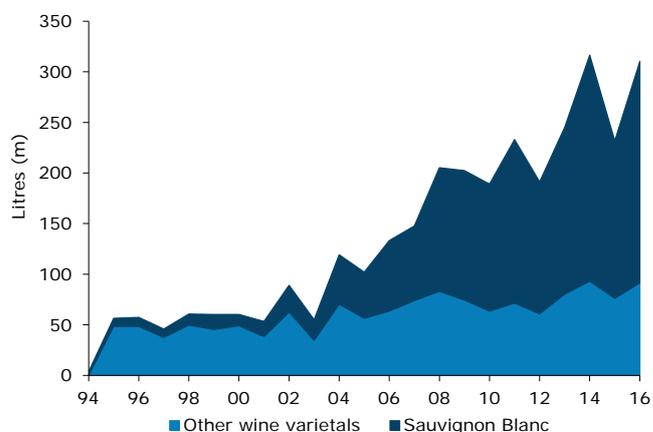
In our June 2016 *Agri Focus* we took a detailed look at the viticulture sector and its key export markets. Readers should refer to this for a detailed market outlook. The analysis covered here is an abridged view and more focused on short-term market dynamics.

NEW ZEALAND SUPPLY

Growers delivered a 436,000 tonne vintage in 2016. This was a substantial increase from the small crop in 2015, but not as large as the record-setter of 445,000 tonnes in 2014.

The 2016 grape-growing season had its challenges, but the harvest was deemed by most growers to have been perhaps the smoothest and 'under control' for many years. Bunch size and berry numbers were variable in the Marlborough area. Disease pressures were higher too (botrytis infection during certain periods and powdery mildew), which led to more intensive crop and spray management to maintain quality. The heavy crop and disease pressures meant quality management decisions had to be made to maintain quality at harvest and deliver a crop that wouldn't cause a supply imbalance. In the main, fruit quality ended up as excellent, with quality management decisions from growers allowing the challenging growing season to be successfully navigated.

FIGURE 41. NEW ZEALAND WINE PRODUCTION

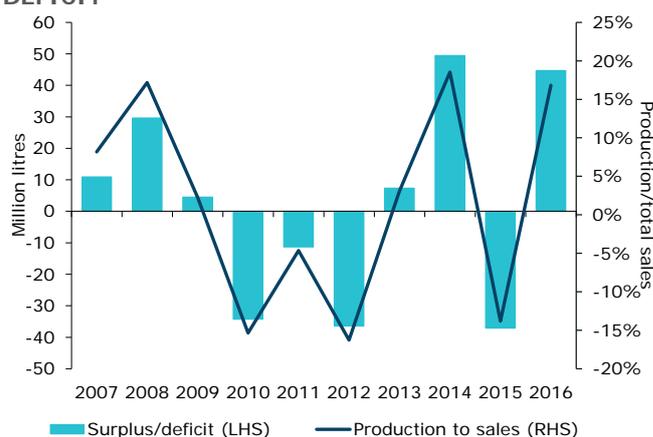


Source: ANZ, New Zealand Winegrowers

The increase in supply is not expected to create a market imbalance. In fact an increase in supply was required after the small 2015 vintage and continued demand growth in North American markets created a deficit of 37 million litres. Only 2010 and 2012 have experienced similar-sized deficits.

If export demand holds steady in 2016/17 a surplus of 45 million litres will be created from the 2016 vintage. Some of this will be used to rebuild stocks – across the two last vintages it would imply only a small surplus of 8 million litres, which equates to 3% of annual sales. Export growth to North America could also soak up some of the extra, but it seems likely the Australian and United Kingdom markets could be softer in the short-term too.

FIGURE 42. NEW ZEALAND WINE SUPPLY SURPLUS/DEFICIT



Source: ANZ, New Zealand Winegrowers

A manageable surplus should ensure the supply of bulk wine sold for the secondary market remains within historical norms. If lower-quality bulk wine increases too much in any given period this

FEATURE ARTICLE: FARM-GATE PRICE OUTLOOK

can pressure packaged product prices and weigh on average returns. This evidently spills over into lower grape prices to support winery margins.

Further supply growth is expected over the coming years with new greenfield investment being led by the larger wine companies.

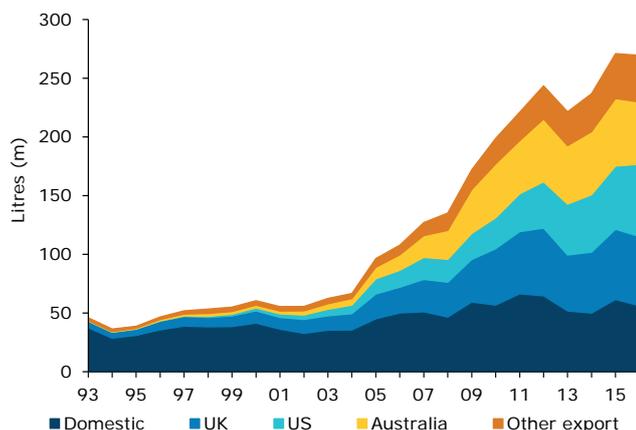
Planting surveys by New Zealand winegrowers suggest the vineyard area is set to expand by as much as 7,000 hectares or 20% by 2020/21.

Some of this expansion is currently underway with an estimated 1,800ha (or 5%) additional plantings already in the ground and coming into production by vintage 2018. Sauvignon Blanc is expected to continue to dominate plantings, rising 8% to 21,900 hectares (58% of total growing area) in 2018.

EXPORT MARKETS

New Zealand's domestic market and top three export markets of Australia, the US and UK account for 85% of total wine sales and 82% of total sector revenue. While other markets such as Germany, the Netherlands and Canada are slowly increasing their market relevance, the top four markets are expected to continue to dominate overall sales into the 2020's. This is due to supplier/ownership relationships with other parts of the supply chain and strong prospects for Sauvignon Blanc and premium wine within these markets.

FIGURE 43. NEW ZEALAND WINE DESTINATIONS



Source: ANZ, New Zealand Winegrowers

In our June *Agri Focus* we provided a detailed overview of New Zealand's top markets and prospects. Key take-outs were there is scope for more growth from consumers looking for sophisticated foods and beverages, a new generation of younger consumers coming through, and a trend towards 'premiumisation'. Health concerns around the amount of alcohol being consumed are having

an impact too. However, many consumers appear to have opted for a 'quality over quantity' attitude. All of these trends suit New Zealand's product and market positioning.

Distribution channels are changing too. Tasting rooms, wine clubs, online marketing and other direct sales channels that reach consumers through the internet, mobile apps and social media are growing strongly and offer new channels to market.

On a short-term basis New Zealand's domestic market and North America are likely to attract more product over the next 12 months. Spending on premium food and wine products is expected to be supported by favourable economic growth and labour market conditions, as well as tourism activity within New Zealand.

This growth could be offset by slower sales to Australia and the United Kingdom due to tougher economic conditions in both countries and a high NZD/AUD and NZD/GBP. Indeed the United Kingdom is now expected to experience a mild recession following Brexit effects on business and consumer confidence.

RURAL PROPERTY MARKET

SUMMARY

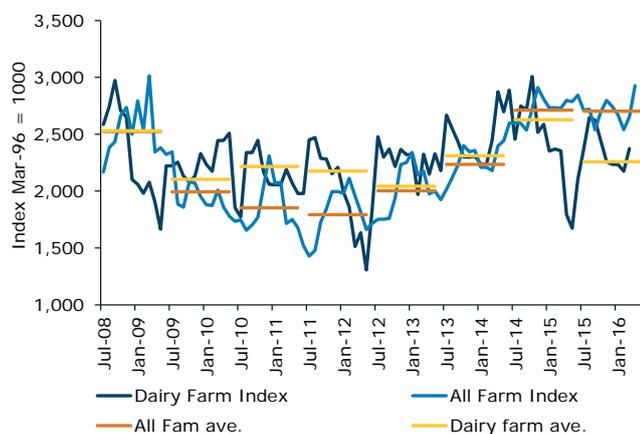
The REINZ's all-farm measure of property prices has held steady in 2015/16 versus the year before, whereas the dairy farm measure is back 14% y/y. Record-low interest rates, farm amalgamation, a continued focus on cost efficiencies and productivity initiatives, steady-to-strong (depending on sector) earnings and spillover from the housing/lifestyle market all continue to support prices. A lifting milk price will help dairy-aligned land, or at least mitigate the downside pressure which is still apparent given cashflow pressure. The RBNZ survey of credit conditions points out that banks' lending criteria to the agri sector has tightened since the start of 2016. Until cashflow prospects look more sustainable, the buyer pool could be somewhat restricted to businesses with strong financial positions and track records of managing through the cycles in the milk price.

The REINZ all-farm measure has been relatively stable around \$27,000/ha over recent months. This is still nearly 20% above the 10-year average. The total turnover of properties has been fairly close to historical averages, but there is a wide divergence between farm types.

Dairy property sales are tracking around 25% below historical averages. However, average sale prices continue to hold up at \$35,000/ha. In contrast, grazing property sales are tracking nearly 25% above historical averages and average sale prices continue to trade in the \$24,000-\$26,000/ha range. Interestingly, the turnover of grazing property sales has dropped below last year and historical averages – perhaps due to softer returns lately. Average grazing property sale prices have been around \$16,000/ha in recent months, in line with historical averages. Elsewhere arable and horticulture property turnover and prices remain very cheerful.

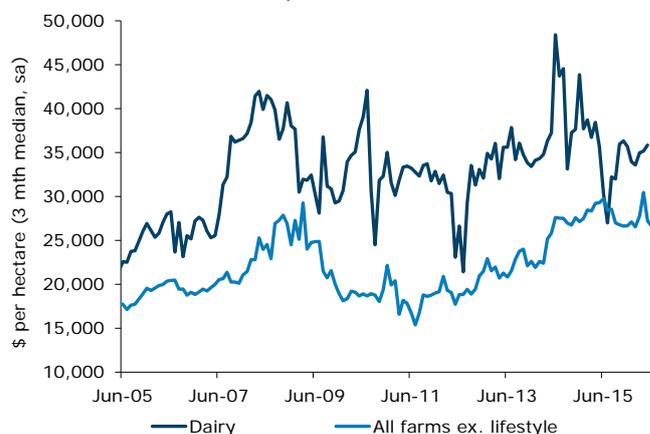
3-Month Seasonally Adjusted		Current Period	Previous Period	Last Year	10-Year Average	Chg. P/P	Chg. Y/Y	Chg. P/10yr
Dairy	Number of Sales	47	46	60	62	↑	↓	↓
	Median Price (\$ per ha)	35,800	35,200	35,700	33,300	↑	↑	↑
Livestock – Finishing	Number of Sales	83	85	68	68	↓	↑	↑
	Median Price (\$ per ha)	23,500	24,700	27,400	17,700	↓	↓	↑
Livestock – Grazing	Number of Sales	168	150	178	192	↑	↓	↓
	Median Price (\$ per ha)	15,600	16,300	16,000	15,700	↓	↓	↓
Horticulture	Number of Sales	79	67	58	43	↑	↑	↑
	Median Price (\$ per ha)	222,300	203,400	245,000	159,800	↑	↓	↑
Arable	Number of Sales	35	37	34	21	↓	↑	↑
	Median Price (\$ per ha)	41,300	46,500	49,100	32,400	↓	↓	↑
All Farms ex. Lifestyle	Number of Sales	451	420	418	417	↑	↑	↑
	Median Price (\$ per ha)	26,900	26,600	28,400	22,400	↑	↓	↑
Lifestyle	Number of Sales	2,386	2,374	2,043	1,551	↑	↑	↑
	Median Price	563,000	574,000	548,000	471,000	↓	↑	↑

FIGURE 1. REINZ FARM PRICE INDICES



Source: ANZ, REINZ

FIGURE 2. FARM SALES, MEDIAN PRICE



Source: ANZ, REINZ

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Region	Regional Farm Sales for 2015 by Farm Type								
	Dairy			Fattening		Grazing		Horticultural	Arable
	Average sale price per ha	Average production MS per ha	Average sale price per MS produced	Average sale price per ha	Average sale price per stock unit	Average sale price per ha	Average sale price per stock unit	Average sale price per ha	Average sale price per ha
Northland/Auckland	26,800	658	30	28,500	1,065	13,800	1,270	152,500	–
Bay of Plenty	34,800	824	38	24,200	1,051	–	–	227,900	–
Waikato	44,900	825	47	22,000	1,362	12,000	1,008	125,000	–
Taranaki	51,600	765	63	19,800	956	7,000	808	–	–
Gisborne/Hawke's Bay	17,400	863	20	20,800	557	8,800	500	146,100	65,800
Manawatu/Lower NI	31,800	942	29	21,200	783	7,400	461	163,800	–
Canterbury/West Coast	20,800	596	37	22,600	1,419	9,000	952	112,700	40,100
Otago/Southland	32,800	947	32	18,500	1,205	3,000	492	111,800	36,400
New Zealand	39,700	798	40	21,600	812	9,900	620	181,200	44,100

Source: ANZ, Quotable Value New Zealand

In this edition of the rural property section, we look at the regional variations in land values for different farm types. **There is a wide spread in regional prices and trends for the different farm types, which is not captured at the national level.** The differences are often associated with parameters such as weather, soils, contour, location, environmental regulation and productivity. We have used Quotable Value NZ data, which has just been released for the 2015 calendar year. While the data lags the current situation by eight or so months, it does offer an insight into the regional differences in farmland values. Comparisons with the REINZ data shouldn't be made due to different collection methods and definitions. We have also taken some outlier results out and amalgamated certain regions to distil the results down to broad trends.

Property prices across all farm types remained buoyant in the 2015 calendar year. However, there appeared to be some regional divergence for livestock-aligned properties with the North Island outperforming the South Island (compared with the year before). Part of the divergence appears to be compositional with low sale volumes in the Canterbury area.

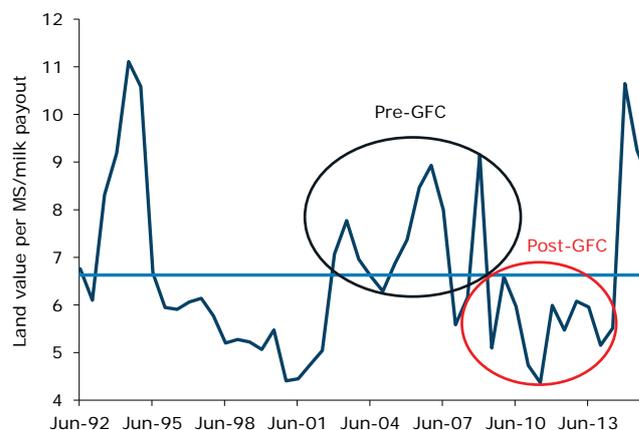
The general buoyancy reflected a wide mix of drivers including: buyer focus on the long-term returns of owning land; record-low interest rates; a competitive banking environment continuing to make credit available; productivity improvements; a different mix of buyers (foreign and equity investor interests); succession; irrigation developments; offshore interest in rural land as an asset class; efficiency gains from amalgamation with next door neighbours; and a restricted supply of quality properties.

Of course there were plenty of challenges too, including things such as the low dairy payout, its

associated effects on other sectors (i.e. dairy support and arable prices) and changing environmental regulation. But these seem to have played second fiddle to the other drivers.

More specifically, the national average for dairy farmland sales averaged \$39,700/ha, or \$40/kg MS produced in 2015. Using the 10-year average milk payout of \$6.16/kg MS this gives a per MS land value to milk payout multiple of 6.5, slightly below the 15-year average of 6.6. However, the actual cashflow over the two adjoining financial years of 2015 was well below the long-run average at \$4.93/kg MS. Using this gives a much less favourable multiple of 8.1. However, in the context of previous spikes higher during periods of over-exuberance and/or an income hit, the increase isn't any more of an outlier.

FIGURE 3. LAND VALUE MULTIPLE TO MILK PAYOUT



Source: ANZ, QVNZ

On a regional basis, using the same valuation metric provides an even wider split. At one end there is Taranaki with a per MS land value to milk payout multiple of 12.8. Then there is Hawke's Bay at

RURAL PROPERTY MARKET

the other end of the spectrum with a multiple of 4.0. The difference highlights the various regional drivers of the property market well. In Taranaki a big driver is amalgamation of smaller neighbouring parcels of land to improve operating efficiencies. In Hawke's Bay there was a smaller number of sales of large-scale operations. Many large-scale operations in less traditional dairying regions (usually associated with higher cost structures and lower productive output) have struggled to attract the same amount of buyer interest in the downturn.

Similar themes are reflected in other regions and valuation metrics. On a per hectare basis, Taranaki (\$51,600/ha) followed by the Waikato (\$44,900/ha) took out the top spots. Then there was quite a gap to the Bay of Plenty (\$34,800/ha), Otago/Southland (\$32,800/ha) and Manawatu/Lower NI (\$31,800/ha). More sales on the West Coast and few in the Canterbury region weighed on the average sale price in this region. Hawke's Bay was the lowest priced at \$17,400/ha.

Ranking the regions on a cost per kilogram MS basis produces a similar order to that of a per hectare price. The most expensive regions on this measure are Taranaki, Waikato, Bay of Plenty, Canterbury/West Coast and Otago/Southland. The one outlier is Canterbury/West Coast, where a very low average production per hectare of 596kg MS increases the price based on this measure. This reflects the weighting of West Coast farms and associated production potential of this region.

At the other end of the spectrum is the Hawke's Bay and Manawatu/Lower North Island. The Manawatu/Lower NI looks to offer the best value with a price per hectare of \$31,800/ha and high production of 942kg MS/ha. This leads to an average price paid of \$29/kg MS and land value to milk payout multiple of 5.9 (using \$4.93/kg MS).

The regional breakdown for fattening properties shows a defined split in valuations between different regions. There were much higher valuations for the golden triangle of Auckland, Waikato and Bay of Plenty, as well as the land use change and irrigation development hot-spots of Canterbury to Southland. The same themes were evident last year.

On a per hectare basis Auckland took out top spot with activity obviously driven by future development opportunities as opposed to farming opportunities. The next-highest value regions were the Bay of Plenty, Canterbury and Southland. While on a per hectare basis Otago/Southland averaged \$18,500/ha, on a stock carrying basis this region ranked third (\$1,205/SU) behind Canterbury (\$1,419/SU) and the Waikato (\$1,362/ha).

At the other end of the spectrum are the more traditional and concentrated meat and fibre regions of the East Coast of the North Island and Manawatu/Whanganui. On a per-hectare basis they were not too much lower with a range of \$19,800-\$21,200/ha, but much higher stock-carrying capacity drives the valuation on this basis to around \$766/SU. This is 37% below the more expensive regions.

For grazing properties there is a wide range of valuations. Lower turnover of just 163 farms means the sample size at the regional level is small and has skewed the results in certain areas. The likes of the low valuation for Otago/Southland was skewed by just three recorded sales, two of which appear to be larger high country/lease blocks, substantially reducing the valuation on a stock-carrying capacity basis. There were no surprises in the fact that Auckland was the highest-valued region, when split out from Northland. The per hectare price in Auckland was nearly double the New Zealand average.

Northland and the Manawatu/Whanganui regions had the highest turnover of grazing properties, together accounting for nearly half of all sales. The valuation metrics varied substantially between the two regions though. Northland had a higher per hectare price of \$11,600 and \$873/SU on a stock-carrying basis. In comparison, the Manawatu/Whanganui price per hectare was \$6,400 and on a stock-carrying basis it was \$430/SU. This is likely to reflect the sole beef focus in Northland with farm-gate prices very buoyant through this period, whereas Manawatu/Whanganui have a greater mix with a heavier weighting toward sheep, where returns weren't so buoyant during the same period. Elsewhere the Waikato and Canterbury regions were more expensive, no doubt reflecting a dairy influence.

In the arable sector, 30 out of a total 45 sales occurred in Canterbury. The average size of the properties sold was 95 hectares. A proportion of these would have been sold for future intensification. Of the remaining 15, Gisborne accounted for seven, Manawatu/Whanganui five and Southland/Otago three. The valuations in Gisborne were \$65,800/ha and Manawatu/Whanganui \$45,900/ha, both above Canterbury at \$40,100/ha.

In the horticultural sector, the changing mix of sales always makes regional comparisons fraught with difficulty and less relevant. Bay of Plenty is likely to reflect a larger proportion of kiwifruit blocks, but other areas, such as Auckland provide fresh produce for the local or Australian export markets, and the East Coast cultivates a wide variety of produce. QVNZ recorded 314 horticultural business sales in 2015, which would appear to be more than other real estate data sources reported.

ECONOMIC INDICATORS

EXCHANGE RATES

	Current Month	3 Mth Trend	Last Year	Chg. M/3M	Chg. Y/Y
NZD/USD	0.723	0.699	0.656	↑	↑
NZD/EUR	0.645	0.624	0.589	↑	↑
NZD/GBP	0.552	0.502	0.420	↑	↑
NZD/AUD	0.948	0.942	0.898	↑	↑
NZD/JPY	73.24	74.16	80.75	↓	↓
NZD/TWI	75.89	73.60	68.68	↑	↑

NZD BUYS USD

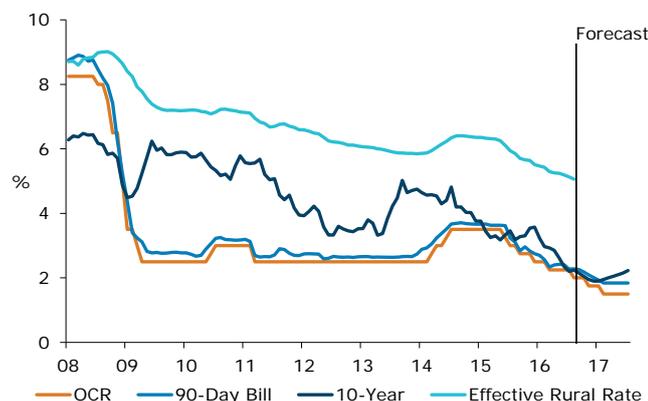


Source: ANZ, Bloomberg

NZ INTEREST RATES

	Current Month	3 Mth Trend	Last Year	Chg. M/3M	Chg. Y/Y
Official Cash Rate	2.00	2.25	3.00	↓	↓
90 Day Bill Rate	2.28	2.37	3.10	↓	↓
2 yr	1.81	1.98	2.67	↓	↓
3 yr	1.63	1.99	2.60	↓	↓
5 yr	1.72	2.02	2.76	↓	↓
10 yr	2.08	2.39	3.18	↓	↓
Effective Rural Rate	5.06	5.19	5.85	↓	↓
Agricultural Debt (\$b)	60.26	59.59	56.98	↑	↑

KEY INTEREST RATES



Source: ANZ, RBNZ

The NZD remains elevated, and is currently near the top of its 12-month trading range. Many commentators attribute this mainly to New Zealand's relatively high interest rates, but this is only one part of the story. In fact, the NZD is higher now than it was a year ago, when the OCR was 3% vs today's 2%. **Other key pillars of support for the NZD include** things like:

- **New Zealand's relatively strong growth prospects.** Growth has accelerated of late.
- **Recovering commodity prices.** Dairy is up.
- **Strong migration and capital inflows.** They tend to go hand-in-hand.
- **Political stability.** NZ stands out as a beacon of stability compared to the cut and thrust of the US Presidential election campaign, and UK's Brexit decision.
- **Ease of doing business and transparency.** While often overlooked, the absence of corruption in New Zealand and world-class public policy platforms make it more attractive to do business here.
- **The actions of others.** Currencies are a relative price. When central banks in other countries/regions like Japan, Europe and the UK start digging deeper into the policy toolkit or take policy rates into negative territory, it affects their currencies. In many cases, that's why they're taking such strong action (hence terms like 'currency wars' and the 'race to the bottom').

Accordingly, we expect the NZD to hold up in coming months, but to start to come off when the local growth profile starts to taper, and as policy rate differentials narrow. Specifically, we expect the Fed to tighten once this year, and the RBNZ to cut twice by February). Until then the NZD/USD is likely to have a 0.7 'handle' on it.

Interest rates remain biased lower, and as for the NZD, there's more to it than the RBNZ lowering the OCR. As noted, we expect at least two more OCR cuts over the next 6 months, taking the OCR to 1.5%. This is already mostly, but not completely, priced into interest rate markets, suggesting some residual downside in short-end rates beckons as these cuts are confirmed.

But the bigger story is offshore, where term interest rates continue to grind lower. This is partly a response to expectations of a sustained period of low inflation and sluggish growth, but also the natural consequence of the 'search for yield' that has been fuelled by the dramatic reduction in sovereign bond yields. Almost three-quarters of New Zealand bond yields are held by foreigners, and with more than 40% of benchmark G10 sovereign bond yields now trading with negative yields, we expect ongoing investment flows into New Zealand to drag yields lower, flatten the yield curve, and drive further spread compression to US and Australian yields.

ECONOMIC INDICATORS

INFLATION GAUGES

Annual % change	Current Qtr	Last Qtr	Last Year	Chg. Q/Q	Chg. Y/Y
Consumer Price Index	0.4	0.4	0.4	↔	↔
Farm Input	0.4	0.3	-1.4	↑	↑
Net Imp. Margins PPI	1.1	-3.9	-15.7	↑	↑

Weak global inflationary pressures, a high NZD, the deflationary impacts from cashflow stress in the dairy sector and a lacklustre commodity price backdrop continue to provide a favourable cost environment.

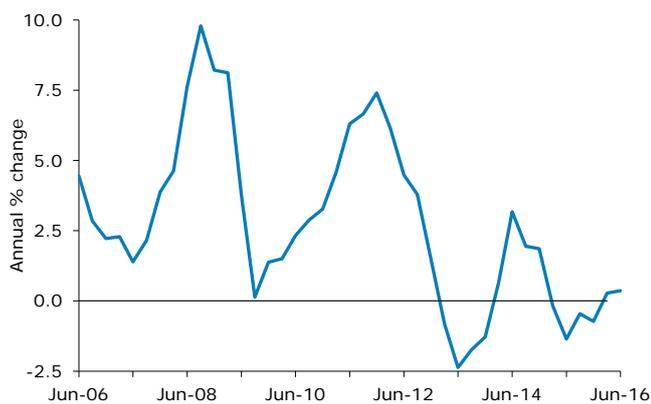
Tradable inflation (think imported inflation) remains particularly low at -1.5% y/y. This means a host of key inputs either imported directly, or local products that compete with imports have seen prices fall, or (at the least) not increase in price. These dynamics don't look like they will change much in the 2016/17 season, particular with the NZD showing little sign of weakening.

In contrast, domestic-generated (non-tradable) inflation is running at 1.8% y/y. That's low but still positive. The New Zealand economy is expanding at a rapid clip with demand exceeding supply. Migration, housing and construction are at the epicentre. We forecast GDP growth in excess of 3% over the year ahead. Growth at that rate is putting pressure on resources. Firms are finding it more difficult to attract staff. This means labour, construction costs and other domestic-orientated services are likely to face more upward price pressure over the 2016/17 season.

Producer Price implied margins rose slightly (+1.9% q/q) in the June quarter. Output prices were up 2.4% q/q and input prices provided a slight offset, increasing 0.6% q/q. Within this, the largest quarterly lift came from dairy (+3.0% q/q) and meat & fibre farming (+2.1% q/q). However, on an annual basis margins for both sectors remain below the same time last year.

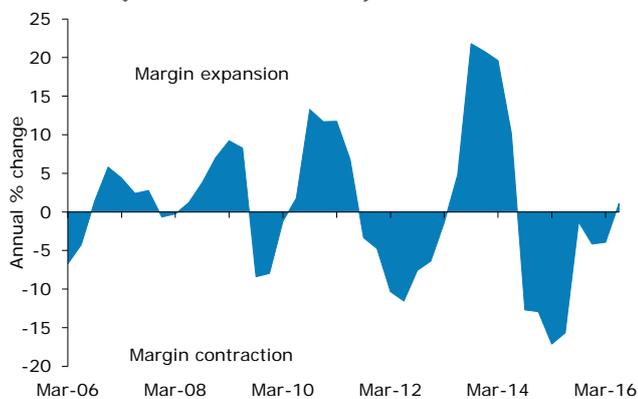
Elsewhere all the other sectors experienced a quarterly lift in margins. On an annual basis, forestry margins increased an impressive 13% y/y. This was driven by a 15% y/y lift for output prices, due primarily to better in-market prices and low shipping costs. The other big improver over the last year was fishing and aquaculture, with implied margins up 5.1% y/y. This was mainly driven by a 4% y/y increase in outputs.

FARM INPUT INFLATION GAUGE



Source: ANZ, Statistics NZ

ANNUAL NET IMPLIED MARGINS PPI AG/FORESTRY/FISHING (OUTPUTS – INPUTS)



Source: ANZ, Statistics NZ

BORROWING STRATEGY

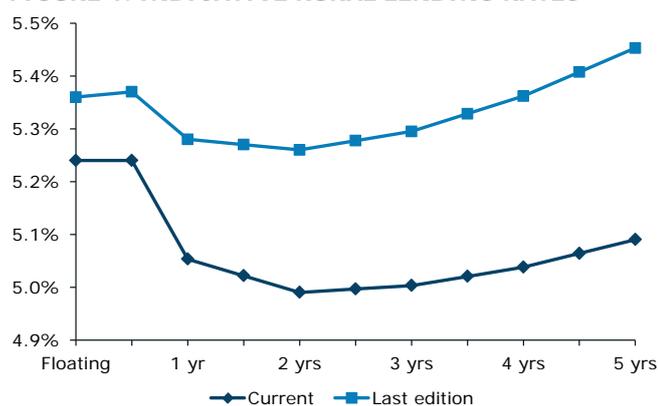
SUMMARY

Indicative rural lending rates continue to fall, led by the long end. With negative interest rates prevalent across many of the major developed economies, New Zealand interest rates are simply too attractive to overlook, and the consequent investment flows in combination with expectations of a lower OCR in response to currency strength are driving local rates lower. We expect more of the same in coming months, but caution that borrower rates may fall by less, as funding spreads come under pressure and market forces begin to favour depositors over borrowers. Short-end interest rates are also lower, but to a lesser extent. Given the tick-shaped yield curve, and only marginal differences between 2 to 5 year rates, it is worth considering fixing for longer to protect against an increase in borrowing costs irrespective of the source (although we think funding spreads have much more scope to increase than wholesale interest rates).

OUR VIEW

Indicative rural rates are down around a quarter of a percent on average since our last edition (July), led by larger falls at the long end of the yield curve (figure 1). Because our figures assume a constant funding cost spread to wholesale swap rates, actual borrowing rates across the major banks are likely to have fallen by less as banks have started to compete more aggressively for deposits (a sign of increasing funding costs, which impacts lending rates). We spoke about this at length in our last issue – the upshot being that in a nation that has borrowed more than it has spent for decades, the pendulum was always going to swing back, and it is now in the process of doing so.

FIGURE 1. INDICATIVE RURAL LENDING RATES



Source: ANZ, Bloomberg

In such an environment, borrowers need to be aware of what is happening to both wholesale interest rates (base rates) and credit spreads (or funding spreads), for it is the sum of the two that make up all-up borrowing costs. At this stage, the falls seen in wholesale rates have outpaced the rise in

funding costs for banks, making for the lowest all-up borrowing costs for mortgage and rural borrowers in decades. However, as we also discussed in our last edition, while we are fairly confident that the prospect of two more OCR cuts (expected in November and February) and lower global interest rates (with sovereign bond yields below zero in ~40% of the 10 major developed world bond markets – as in Table 1) will drive New Zealand wholesale rates lower, we are less confident that funding spreads won't continue to widen. **Given that, and with a good degree of OCR easing already priced into the yield curve, it makes sense to consider spreading fixes across 2-5 year terms. This is the only way to protect against an increase in all-up funding rates, regardless of source.**

TABLE 1. G10 BENCHMARK SOVEREIGN BOND YIELDS

Country	2-3 Year	5 Year	10 Year	Average
Switzerland	-0.98	-0.82	-0.50	-0.77
Germany	-0.63	-0.50	-0.07	-0.40
Japan	-0.19	-0.17	-0.06	-0.14
Denmark	-0.57	-0.36	0.02	-0.30
Sweden	-0.66	-0.37	0.10	-0.31
Norway	0.54	0.71	1.06	0.77
UK	0.14	0.21	0.64	0.33
Canada	0.57	0.66	1.02	0.75
USA	0.81	1.20	1.58	1.19
Australia	1.45	1.53	1.84	1.61
New Zealand	1.81	1.82	2.24	1.96

Source: ANZ, Bloomberg

Our breakeven table (below) demonstrates just how 'lean' the trade-off between mid-range (2-3 year) and longer term (4-5 year) fixed rates is. Consider, for example, the choice between fixing for 2 years at 4.97%; and fixing for 4 years at 5.02%. Over a 4-year horizon, the 2 year rate 'only' needs to rise by 0.11% over the next 2 years before the 2yr+2yr strategy will end up being more expensive overall. That's not much of a rise. Even if we don't see much scope for the OCR and swap rates to go much wider, funding margins are coming under pressure, and that's a natural reaction to credit growth outstripping deposit growth (and GDP growth).

Rural Lending Rates (incl. typical margin)	Current	Breakeven rates			
		in 6mths	in 1yr	in 2 yrs	in 3 yrs
Floating	5.24%				
6 months	5.24%	4.87%	4.96%	5.02%	5.13%
1 year	5.05%	4.91%	4.93%	5.03%	5.14%
2 years	4.99%	4.94%	4.98%	5.09%	5.22%
3 years	5.00%	4.98%	5.03%	5.16%	
4 years	5.04%	5.04%	5.10%		
5 years	5.09%				

ECONOMIC BACKDROP

SUMMARY

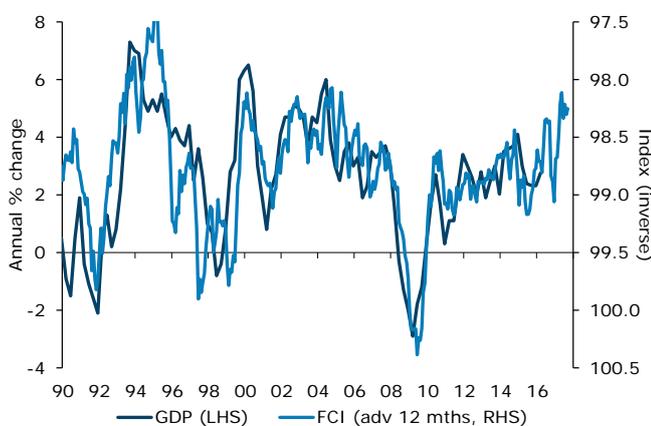
The New Zealand economy is expanding at a rapid clip, with migration, housing and construction at the epicentre. We forecast GDP growth in excess of 3% over the year ahead. At that pace, demand is outstripping supply. Firms are finding it more difficult to find labour and this theme will intensify over the year ahead. That said, risks to the outlook look skewed to the downside courtesy of the global scene. The two main local risk factors, namely low dairy prices and housing over-exuberance (too much borrow-and-spend style growth) look manageable provided sensible heads prevail. Another year of booming house prices would be worrisome.

OUR VIEW

The economy is expanding briskly. Momentum accelerated early in the year. Migration inflows were strong. Construction boomed. Housing surged. Tourism flourished. That combination remains in vogue. Each month of consistent expansion is encouraging firms to invest further and take on more staff. Success is breeding more enthusiasm for success.

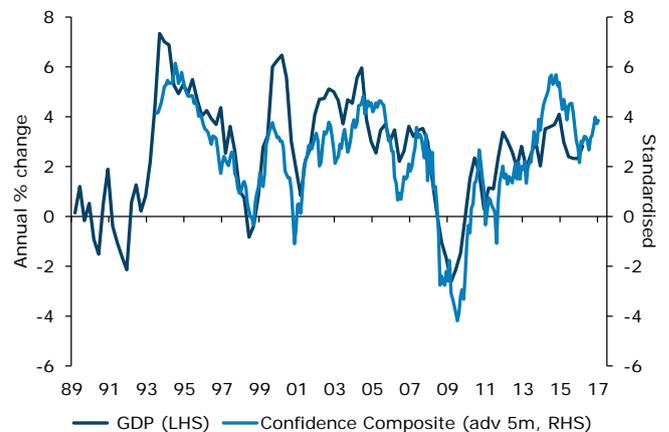
We forecast GDP growth to accelerate towards 3½% over the year ahead. Key signals from our suite of timely indicators remain positive. Lagging GDP data is old (we only have data up until the March quarter at present and we are now in September!). Our confidence composite gauge and financial conditions measures are pointing to strong momentum being maintained. Job ads have now risen for six consecutive months. The unemployment rate is trending lower and real household income growth is running at an above-average pace.

FIGURE 1: NZ GDP VS FINANCIAL CONDITIONS INDEX



Source: ANZ, Statistics NZ, Bloomberg

FIGURE 2: CONFIDENCE COMPOSITE VERSUS GDP



Source: ANZ, Roy Morgan, Statistics NZ

Demand across the economy is outstripping available supply. Capacity bottlenecks are coming more to the fore. Firms are finding it more difficult to find skilled staff (NZIER Quarterly Survey of Business Opinion, ANZ Small Business Microscope, MYOB). That's a handbrake on momentum, although that is certainly a better problem to have than a lack of demand!

Two localised challenges / risks to the outlook look manageable:

- **The dairy sector is still under considerable cash-flow strain but the outlook for prices looks less bleak.** Cost structures are being pruned. Balance is being restored to the market; low international dairy prices are curtailing supply, thereby helping to stabilise prices. The industry is still going through an adjustment but it's not as bad as it was shaping up to be a few months ago.
- **Housing excesses.** Borrowing excesses (household debt is 163% of income) in combination with valuation excesses ups the ante on a correction. At present that's hard to envisage given support from migration and a curtailed supply-side response. The RBNZ is tempering market activity via tighter LVR restrictions, with early (anecdotal) signs of success. **But another year of strong credit growth would put us on notice.**

But the greatest risk is the global scene.

There is no shortage of candidates. Globalisation and economic integration is being replaced by the antithesis. Emerging market Asia has high leverage. Europe faces structural challenges. Watch the flow-on from Brexit. Policymakers have few bullets to fire if things go amiss and lower interest rates are arguably fostering bigger problems down the track.

EDUCATION CORNER: NEW SHAREMILKING OPTION

SUMMARY

A volatile milk price has created a situation where the traditional 50/50 sharemilking model is less fit for purpose; good times reward sharemilkers heavily and busts put them under severe financial stress. While coping with booms and busts is a part of business, such volatility (and heightened volatility of late) has meant less certainty for all parties and potentially undermines medium-term capability.

Dairy NZ, MyFarm and Fed Farmers have developed a new model by which to split milk revenue under different milk prices. The split depends on what each party contributes in terms of farm costs covered; the amount and type of capital contributed; and the required return on capital for each.

While there are associated due diligence costs, the model provides a more equitable split between farm owners and sharemilkers as the milk price changes. It is also tailored to a specific partnership and not a 'one size fits all' type of agreement. Such a model allows greater flexibility to deal with anticipated price volatility and the wide range of different partnership setups in the industry.

INTRODUCTION

Earlier this year we discussed the need to recalibrate dairy cost structures in a low milk price environment. This process is underway.

Talented people are required with the appropriate incentives in place to drive this and other changes to improve business performance. This is like any other industry or profession where new talent needs to be attracted, fostered, nurtured, incentivised and retained to provide business continuity, new ideas and drive performance. On some levels the challenges for dairying are more acute when you consider a) anticipated labour resources to meet the industry's growth goals, b) growing sophistication across the entire supply chain, c) the likely natural attrition out of the industry as demographics kick in, and d) the natural desire to own the land (which is pricey) as well as work it.

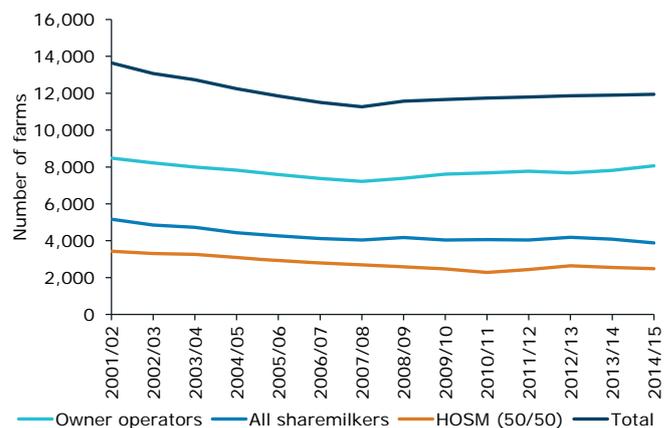
In the dairy sector sharemilking has typically been used as the ownership/management structure to provide new talent and as the pathway to full farm ownership for many. Equally it has been an option used to facilitate inter-generational succession of the family farm and to form/manage larger corporate operations.

However, a volatile milk price has created a situation where the traditional 50/50 sharemilking model has become challenged.

During the good times it over-rewards sharemilkers at the expense of farm owners. Prior to the downturn this prompted farm owners to move toward managers, contract milkers and variable order sharemilkers. In the more recent times of a low milk price, sharemilking has become financially unviable, forcing people out of the industry. Another added stress during the downturn has been less flexible cost structures in some of the larger corporate operations. The end result is more volatility and less certainty for all parties.

These pressures have led to a decline in herd owning sharemilking positions. If the imbalances between risk and reward are not addressed and the milk price stays below \$5.50/kg MS then the decline is likely to continue accelerating.

FIGURE 1. OWNERSHIP STRUCTURES IN THE NEW ZEALAND DAIRY INDUSTRY



Source: ANZ, DairyNZ

A low milk price over the last two years has forced many sharemilking arrangements to adjust their terms and conditions in order to try to balance out the returns to each party and provide some income security and stability with an eye to the future.

Some of these variations include putting 'caps and collars' in agreements where the income split changes based on the milk price. For example, if the milk price drops, the percentage received or contract rate increases to ensure they are able to pay their bills and provide for their family. As the milk price increases the percentage received declines, ensuring that in a high milk price year farm owners are getting a fair return for the level of investment they have in the business.

The agreement needs to share benefits equitably to be sustainable. This is not uncommon in the commercial world. It is quite similar to many franchise arrangements. In these arrangements there is reduced supervision cost, increased focus on the

EDUCATION CORNER: NEW SHAREMILKING OPTION

drivers of profit, reduced cost through better day-to-day decision-making and harder work compared with an owner employing management. In addition, franchised businesses can bring in new equity.

In order to deliver similar benefits between sharemilkers and farm owners these issues can be addressed through deconstructing the basis of agreements, and rebuilding these to be mutually beneficial for all parties under various industry conditions.

A NEW APPROACH

Dairy NZ, MyFarm and Fed Farmers, with input from other industry participants, have developed a new approach for sharemilking agreements. The aim is to create a more tailored approach relevant to each situation, as well as add more financial sophistication to developing an equitable split in returns and sharing the risks associated with changes in the milk price.

It involves the following steps:

- 1. An analysis of the farm itself; the level of potential production and the associated sustainable cost structure.** This requires a lot of due diligence of the farm's economic capacity to ensure a correct assessment is made. In a low milk price environment there will be even greater need to run a lean business with good productivity metrics to keep costs low. Otherwise it won't work for either party.
- 2. Splitting costs between sharemilker and farm owner.** The model can consider alternative splits to the traditional approach of 50/50 sharemilking. In general, animal, staff, vehicle and shed costs lie with the sharemilker. Feed, grazing, fertiliser, and administrative charges are shared. Fixed or land-based costs, such as rates, repairs & maintenance and regrassing lie with the farm owner. You need a clear alignment of costs with accountability.
- 3. A fair value then needs to be determined for the different assets being brought to the business by each party.** This doesn't necessarily require precise valuations as it is more about the relative weighing of the assets contribution by each party, associated price change that can occur for each, as well as risks for the different asset types that are important. The splits will vary by farm as there is a wide range of land prices, but typically higher-value farms are more productive, providing higher profit margins and ability to carry more livestock balancing the split. In general a sharemilker's assets of livestock and plant tend to be around 13-15% of the total asset base.

- 4. The last step looks at the required rate of return or weighted average cost of capital¹ for each party.** Farmland has generally been considered a fairly steady asset class that debt finance can be sourced against. Farm owner expectations of cash returns have generally been lower for various reasons too, meaning a weighted average cost of capital at present would be between 5.5-6.0%. In contrast, sharemilking assets, which are mainly plant and livestock, vary in value more than land and are more difficult to secure debt finance against. A sharemilker's required return, or WACC, probably ranges between 8.5% and 9.5% at present. These can vary with changes in wholesale interest rates, credit costs and equity risk premiums.
- 5. With the inputs of farm costs, the split in these, respective asset bases being contributed and the required rate of return on assets for each party, a model then calculates the milk price at which the milk revenue should be shared on a 50/50 basis.** The milk revenue split between each party is determined from summing the split in the share of profit, farm working expenditure and depreciation covered by each party. The model can be recast as the milk price varies, providing each party a fair return on their asset base for a range of milk prices.

A WORKED EXAMPLE

The best way to explain the process and outcomes under different milk prices is to look at a worked example.

- 1. Let's assume a farm has farm working expenses of \$4.10/kg MS and the costs are split 35% to the land owner and 65% to the sharemilker.**
- 2. Of the capital contributed, the sharemilker's input of cows and plant account for 14% of the total asset base. The farm owner's contribution (i.e. land and buildings) is the remaining 86%.**

¹ The weighted average cost of capital (WACC) is the overall cost to a business of long-term sources of finance. It is calculated by weighting the cost of each source of capital together. It represents the overall return required to keep all the suppliers of finance to a business happy.

The two main sources are usually debt and retained earnings. Weighted average cost of capital = proportion of finance debt funded times cost (borrowing interest rate) plus proportion of finance from retained earnings times business owners' targeted return.

EDUCATION CORNER: NEW SHAREMILKING OPTION

3. **The sharemilker's WACC is 8.6%.** This is derived from a required return on equity invested of 16% and cost of borrowing of 5%. They have borrowed 60% of their capital to buy the cows and plant. It also assumes a tax rate of 28%.
4. **The farm owner's WACC is 5.8%.** This is derived from a required return on equity invested of 6.8% and cost of borrowing of 5%. They have borrowed 30% of the capital. It also assumes a tax rate of 28%.

The model essentially then takes the nominal WACC for each party and adjusts the share of profit accordingly. In this example the sharemilker's adjusted share of profit is increased to 20% (from 14%) as their WACC is 47% (8.6%/5.8%) greater than the farm owner's.

The risk-adjusted WACC of 20% for the sharemilker and 80% for the farm owner can then be applied to the profit generated by the business at different milk prices. In this example a milk price of \$5.60/kg MS gives a profit of \$1.50/kg MS. The share of this would be \$1.20/kg MS to the farm owner and \$0.30/kg MS to the sharemilker.

The split in the milk revenue can then be deducted from the formula of milk revenue = profit + farm working expenses + depreciation. With the profit split for different milk prices and the assumed 65/35 split in farm working expenses and depreciation (additional \$0.24/kg MS) the split in milk revenue for each party can be calculated. **In the case of a \$5.60/kg MS milk price and the above split in profit and costs, this leads to a 50/50 share in milk revenue.**

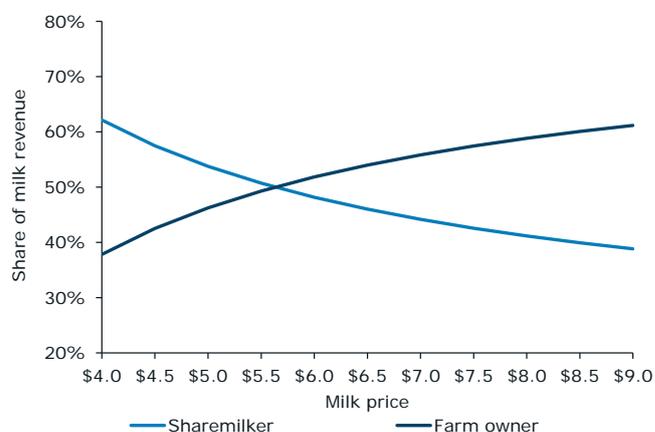
The other beauty of the model is that it can be adjusted easily during a season as the milk price forecast changes. This helps sharemilkers with the cash liquidity issues they might face during a downturn, but also provides an objective, predefined way for sharemilkers and farm owners to adjust the share of milk revenue as the milk price and other variables change. Not just a 'finger in the air' type of approach.

The tables at the end of Education Corner show the different outcomes for the sharemilker and farm owner of this example at different milk prices. Obviously the solution generated will be specifically tailored to each situation/farm.

THE RESULTS

What the analysis shows is that with a low milk price the sharemilker receives a larger share (upward of 60% with a low-\$4/kg MS milk price) of the milk revenue, as they pay a higher proportion of the costs (65% in this example). This means the sharemilker loses less money at low milk prices, improving viability during downturns. At same time, when milk prices are more profitable the model still delivers the sharemilker's higher return requirement (though they do give away some of the upside). This leads to a more equitable outcome no matter what the milk price and reduces the volatility in returns.

FIGURE 2. SHARE OF MILK REVENUE AT DIFFERENT MILK PRICES



Source: ANZ

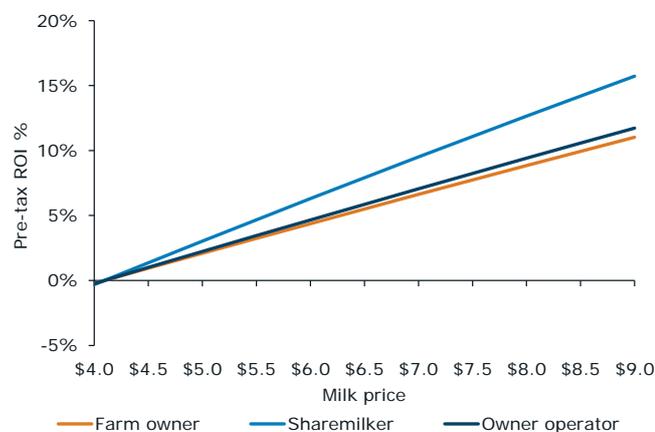
For the farm owner a higher milk price attracts a larger share of the milk revenue (55% at a \$6.50/kg MS milk price) as they have contributed more of the total capital in the form of land that requires a return.

The result is that sharemilkers avoid the large potential losses when the milk price is low, but still share some of the (super) profits with the farm owner when the milk price is high. This leads to a more stable and arguably equitable outcome for all the parties involved, which incidentally leads to a more bankable situation.

From the farm owner's point of view, the model results in returns quite similar, if slightly lower, to an owner operator too – particularly after having sold out of livestock and plant. From a farm management point of view, the sharemilker has skin in the game, which in the main should lead to better financial outcomes for all involved.

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FIGURE 3. RETURN ON INVESTMENT AT DIFFERENT MILK PRICES



Source: ANZ

The flexibility of being able to share the costs and capital contributions broadens the sharemilking opportunity by making it more suitable for a variety of situations. Farm owners can meet more of the capital, or costs, as an example. Sharemilkers can start with less capital than needed for a conventional 50/50 agreement.

So where are some of the hooks?

- **It adds more complexity and the parties involved need to be financially savvy to understand how the model works in splitting milk revenue and returns.** This means more due diligence and seeking advice is required, which is already an area of weakness when sharemilking ventures are being formed.
- **There are numerous upfront costs and due diligence demands.** Any investment requires this, but a deeper dive is required here, especially around the business's potential operational performance and valuation of assets.
- **While providing more formality in deducing the split in income there are still areas of negotiation required.** This includes the split in costs and individuals' views on their required return on contributed capital.

OTHER CONSIDERATIONS

There are a host of other considerations too. Many are not unique to this particular sharemilking arrangement, but rather are broader considerations that go alongside any business partnership.

- **Both parties need to be fully informed and understand the implications of the partnership.**

- **There needs to be confidence that the partnership is viable under a range of price scenarios.** Business viability still doesn't look great at a low-\$4/kg MS price, however it is split, and that means there needs to be a big focus on continuing to improve the farm's underlying performance (cost efficiencies and productivity metrics).
- **Both parties need to be able to repay appropriate principal (assuming leverage is involved) at a long-run milk price.** For a sharemilker this probably involves being able to pay off debt in about 7 years at a \$5.50/kg MS milk price. Risk reduction strategies for the sharemilker possibly provide scope for a longer loan term and reduced amortisation.
- **The partnership needs to be consistent for at least three years** – with scope to change areas like the sharing of costs, and with the implications on profit and production understood.
- **Annual tactical decisions require equal say and possibly arbitration.** The adviser third party role is key here.
- **Any agreement needs to drive the right sort of behaviours across parties.** That invariably drives good outcomes and better decisions in both the short and long-term. Both need to be a strong focal point. Poor incentives drive bad behaviours and poor outcomes.

THE UPSHOT

This new model offers a steadier and formalised approach for splitting the returns and risks between sharemilkers and land owners. This leads to a more equitable and viable long-term sharemilking solution as the industry's business structures continue to change and with the milk price expected to continue to swing.

While it adds more complexity, a greater need for due diligence, and the parties involved need to be financially savvy, these are all weaker points of many current sharemilking arrangements. So addressing these weaknesses should lead to better outcomes for all parties involved.

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TABLE 1. MODELLED OUTCOMES FOR DIFFERENT PARTIES UNDER VARIOUS MILK PRICE SCENARIOS

TOTAL FARM FINANCIAL PERFORMANCE											
Milk price	\$4.00	\$4.50	\$5.00	\$5.50	\$6.00	\$6.50	\$7.00	\$7.50	\$8.00	\$8.50	\$9.00
Milk Revenue	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50	8.00	8.50	9.00
Net Stock Sales	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Farm working expenditure	4.10	4.10	4.10	4.10	4.10	4.10	4.10	4.10	4.10	4.10	4.10
EBITDA	0.14	0.64	1.14	1.64	2.14	2.64	3.14	3.64	4.14	4.64	5.14
Depreciation	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
EBIT	-0.10	0.40	0.90	1.40	1.90	2.40	2.90	3.40	3.90	4.40	4.90
Opening Assets	39.19	39.19	39.19	39.19	39.19	39.19	39.19	39.19	39.19	39.19	39.19
Working Capital	0.98	1.14	1.31	1.47	1.64	1.80	1.96	2.13	2.29	2.46	2.62
Total Capital	40.17	40.33	40.49	40.66	40.82	40.99	41.15	41.32	41.48	41.64	41.81
EBIT/Total Capital	-0.2%	1.0%	2.2%	3.5%	4.7%	5.9%	7.1%	8.2%	9.4%	10.6%	11.7%
MILK REVENUE SPLIT UNDER DIFFERENT MILK PRICES											
Milk Price	\$4.00	\$4.50	\$5.00	\$5.50	\$6.00	\$6.50	\$7.00	\$7.50	\$8.00	\$8.50	\$9.00
Equitable Share of EBIT											
Owner	-0.08	0.32	0.72	1.12	1.52	1.92	2.32	2.72	3.12	3.52	3.91
Sharemilker	-0.02	0.08	0.18	0.28	0.38	0.49	0.59	0.69	0.79	0.89	0.99
Milk Revenue @ Equitable EBIT											
Owner	1.51	1.91	2.31	2.71	3.11	3.51	3.91	4.31	4.71	5.11	5.50
Sharemilker	2.49	2.59	2.69	2.79	2.89	2.99	3.09	3.19	3.29	3.39	3.50
% Share of milk revenue @ Equitable EBIT											
Owner	38%	43%	46%	49%	52%	54%	56%	57%	59%	60%	61%
Sharemilker	62%	57%	54%	51%	48%	46%	44%	43%	41%	40%	39%
RETURN COMPARISON FOR DIFFERENT PARTIES											
FARM OWNER											
Milk Price	\$4.00	\$4.50	\$5.00	\$5.50	\$6.00	\$6.50	\$7.00	\$7.50	\$8.00	\$8.50	\$9.00
Milk Revenue	1.51	1.91	2.31	2.71	3.11	3.51	3.91	4.31	4.71	5.11	5.50
Farm working expenditure	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42
EBITDA	0.09	0.49	0.89	1.29	1.69	2.09	2.49	2.89	3.29	3.69	4.08
Depreciation	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
EBIT	-0.08	0.32	0.72	1.12	1.52	1.92	2.32	2.72	3.12	3.52	3.91
Opening Assets	33.82	33.82	33.82	33.82	33.82	33.82	33.82	33.82	33.82	33.82	33.82
Working Capital	0.38	0.51	0.64	0.77	0.91	1.04	1.17	1.30	1.43	1.56	1.69
Total Capital	34.20	34.33	34.46	34.59	34.73	34.86	34.99	35.12	35.25	35.38	35.51
EBIT/Total Capital	-0.2%	0.9%	2.1%	3.2%	4.4%	5.5%	6.6%	7.7%	8.8%	9.9%	11.0%
SHAREMILKER											
Milk Price	\$4.00	\$4.50	\$5.00	\$5.50	\$6.00	\$6.50	\$7.00	\$7.50	\$8.00	\$8.50	\$9.00
Milk Revenue	2.49	2.59	2.69	2.79	2.89	2.99	3.09	3.19	3.29	3.39	3.50
Livestock Revenue	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Total Revenue	2.73	2.83	2.93	3.03	3.13	3.23	3.33	3.43	3.54	3.64	3.74
Farm working expenditure	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.68
EBITDA	0.04	0.15	0.25	0.35	0.45	0.55	0.65	0.75	0.85	0.95	1.05
Depreciation	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
EBIT	-0.02	0.08	0.18	0.28	0.38	0.49	0.59	0.69	0.79	0.89	0.99
Opening Assets	5.37	5.37	5.37	5.37	5.37	5.37	5.37	5.37	5.37	5.37	5.37
Working Capital	0.60	0.63	0.66	0.70	0.73	0.76	0.80	0.83	0.86	0.90	0.93
Total Capital	5.96	6.00	6.03	6.06	6.10	6.13	6.16	6.20	6.23	6.26	6.30
EBIT/Total Capital	-0.3%	1.4%	3.0%	4.7%	6.3%	7.9%	9.5%	11.1%	12.7%	14.2%	15.7%

EDUCATION CORNER: NEW SHAREMILKING OPTION

SHAREMILKER COMPARISON WITH CONVENTIONAL 50/50 AGREEMENT											
Milk Price	\$4.00	\$4.50	\$5.00	\$5.50	\$6.00	\$6.50	\$7.00	\$7.50	\$8.00	\$8.50	\$9.00
Milk Revenue	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50
Livestock Revenue	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Total Revenue	2.24	2.49	2.74	2.99	3.24	3.49	3.74	3.99	4.24	4.49	4.74
Farm working expenditure	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.68
EBITDA	-0.44	-0.19	0.06	0.31	0.56	0.81	1.06	1.31	1.56	1.81	2.06
Depreciation	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
EBIT	-0.50	-0.25	-0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Opening Assets	5.37	5.37	5.37	5.37	5.37	5.37	5.37	5.37	5.37	5.37	5.37
Working Capital	0.60	0.63	0.66	0.70	0.73	0.76	0.80	0.83	0.86	0.90	0.93
Total Capital	5.96	6.00	6.03	6.06	6.10	6.13	6.16	6.20	6.23	6.26	6.30
EBIT/Total Capital	-8.4%	-4.3%	-0.2%	4.0%	8.0%	12.1%	16.1%	20.0%	23.9%	28.0%	31.8%

Source: ANZ

KEY TABLES AND FORECASTS

FX RATES	ACTUAL			FORECAST (END MONTH)						
	Jul-16	Aug-16	5-Sep	Sep-16	Dec-16	Mar-17	Jun-17	Sep-17	Dec-17	Mar-18
NZD/USD	0.720	0.725	0.732	0.73	0.71	0.69	0.67	0.65	0.64	0.64
NZD/AUD	0.948	0.964	0.964	0.95	0.93	0.93	0.93	0.93	0.94	0.89
NZD/EUR	0.644	0.650	0.656	0.68	0.68	0.66	0.63	0.59	0.58	0.57
NZD/JPY	73.47	74.82	75.90	76.7	74.6	69.0	67.0	65.0	64.0	67.2
NZD/GBP	0.544	0.552	0.550	0.57	0.57	0.56	0.54	0.49	0.47	0.46
NZ TWI	75.0	75.9	78.0	77.0	75.8	73.7	71.5	69.0	68.3	67.5

INTEREST RATES	ACTUAL			FORECAST (END MONTH)						
	Jul-16	Aug-16	5-Sep	Sep-16	Dec-16	Mar-17	Jun-17	Sep-17	Dec-17	Mar-18
NZ OCR	2.25	2.00	2.00	2.00	1.75	1.50	1.50	1.50	1.50	1.50
NZ 90 day bill	2.28	2.28	2.23	2.30	2.00	1.80	1.80	1.80	1.80	1.80
NZ 10-yr bond	2.21	2.24	2.29	2.20	1.90	2.00	2.20	2.40	2.40	2.70
US Fed Funds	0.50	0.50	0.50	0.50	0.75	0.75	1.00	1.00	1.25	1.25
US 3-mth	0.76	0.84	0.84	0.68	0.93	0.93	1.30	1.30	1.55	1.55
AU Cash Rate	1.75	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
AU 3-mth	1.86	1.74	1.72	1.80	1.80	1.80	1.80	1.80	1.80	1.80

ECONOMIC INDICATORS	Mar-16	Jun-16	Sep-16	Dec-16	Mar-17	Jun-17	Sep-17	Dec-17	Mar-18	Jun-18
GDP (% q/q)	0.7	1.1	0.6	1.0	0.8	0.7	0.7	0.6	0.6	0.6
GDP (% y/y)	2.8	3.6	3.4	3.5	3.5	3.1	3.2	2.8	2.6	2.6
CPI (% q/q)	0.2	0.4	-0.2	0.0	0.6	0.3	0.6	0.1	0.7	0.7
CPI (% y/y)	0.4	0.4	-0.1	0.4	0.8	0.7	1.6	1.7	1.8	1.8
Employment (% q/q)	1.4	2.4	-0.4	0.6	0.5	0.4	0.4	0.4	0.4	0.4
Employment (% y/y)	2.0	4.5	4.3	4.0	3.1	1.1	1.9	1.7	1.6	1.6
Unemployment Rate (% sa)	5.2	5.1	5.1	5.0	5.0	5.0	4.9	4.9	4.8	4.8
Current Account (% GDP)	-3.0	-2.6	-2.6	-2.5	-2.7	-2.9	-2.8	-2.7	-2.5	-2.5
Terms of Trade (% q/q)	4.2	-2.1	-0.9	0.5	0.9	1.3	1.9	1.8	0.9	0.9
Terms of Trade (% y/y)	-0.4	-3.9	-1.0	1.6	-1.6	1.8	4.7	6.0	6.0	6.0

Figures in bold are forecasts. q/q: Quarter-on-Quarter, y/y: Year-on-Year

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