

NEW ZEALAND ECONOMICS ANZ AGRI FOCUS

APRIL 2016

INSIDE

Feature Article	2
The Month in Review	13
Rural Property Market	14
Key Commodities	16
Borrowing Strategy	23
Economic Backdrop	24
Education Corner	25
Key Tables and Forecasts	42

CONTRIBUTORS

Cameron Bagrie Chief Economist

Telephone: +64 4 802 2212
E-mail: cameron.bagrie@anz.com
Twitter @ANZ_cambagrie

Con Williams Rural Economist

Telephone: +64 4 802 2361
E-mail: con.williams@anz.com

David Croy Senior Rates Strategist

Telephone: +64 4 576 1022
E-mail: David.Croy@anz.com

REBOOT

FEATURE ARTICLE: DAIRY SECTOR RECALIBRATION OF COST STRUCTURES

Cash flow pressures in the dairy sector are set to persist. This means farmers need to focus more than ever on what they can directly control: productivity, cost efficiencies and debt servicing metrics. Decisions on where to focus efforts need to be supported by a more formal decision making process. A big part of this is completing a business plan and budget with a multi-year time horizon. For productivity and cost efficiency changes, critical areas of focus are often pasture and crop management practices, animal health/genetics, people, optimal stocking rates, usage of cost effective supplement, avoiding feed substitution and getting good advice.

THE MONTH IN REVIEW

Lower livestock production in the form of milk, sheepmeat, beef, venison and wool is expected. The converse is record sized kiwifruit, pipfruit and grape crops.

RURAL PROPERTY MARKET

Sales activity points to a two-speed rural property market. Expectations of pressure on dairy cash flows persisting into 2017 and signs of a structural adjustment lower in dairy prices are weighing on buyer expectations and valuations for dairy-aligned property. All other farm types continue to see robust turnover and solid prices, supported by generally stable-to-better earnings prospects and low interest rates.

KEY COMMODITIES

Soft commodity prices have shown signs of basing. However, there are wide divergences between sectors and prospects for 2016.

BORROWING STRATEGY

Indicative rural lending rates continue to fall, driven by lower wholesale rates courtesy of a lower OCR, expectations of more OCR cut(s), and lower global yields. The lending curve has taken on a more pronounced "bowl" shape. For borrowers, this makes 1-3 year rates extremely attractive. However, we are also mindful that wider credit costs increase the incentive to fix for a longer period to lock in all-up borrowing costs.

ECONOMIC BACKDROP

The economy has Jekyll and Hyde characteristics. Housing is booming, as are construction and tourism. Yet dairying is in the doldrums and will be for some time. The mix of growth (borrow and spend) is not sustainable and a lower OCR (courtesy of low inflation and global unease) will mean more housing largesse at a time households are already heavily leveraged.

EDUCATION CORNER: TPPA IMPLICATIONS FOR FOOD AND BEVERAGE SECTOR

For food and beverage exporters, the TPPA provides better market access to some of the world's wealthiest consumer markets – the US, Japan and Canada. The deal gets rid of \$274 million in tariffs, removes other non-tariff barriers and harmonises the rules governing trade between TPPA members too. But it also goes further, with New Zealand gaining parity with competitors who already have free-trade concessions, increases the competitiveness of small to medium-sized businesses through lowered compliance costs, and allows NZ regulators/businesses to be at the heart of shaping future trade policy. These benefits are difficult to measure, but tangible.

FEATURE ARTICLE: DAIRY SECTOR RECALIBRATION OF COST STRUCTURES

SUMMARY

Cash flow pressures in the dairy sector are set to persist, with uncertainty about any recovery in dairy prices. This means farmers are focusing more than ever on what they can directly control: productivity, cost efficiencies and debt-servicing metrics.

Decisions on where to focus efforts to improve farm business' viability need to be supported by a more formal decision-making process. A big part of this is completing a business plan and budget with a multi-year time horizon.

As part of this there needs to be an assessment of where a business sits for its debt servicing and operating expenditure. It's difficult to stay viable for long if both are high.

We provide several case studies where productivity and cost efficiency changes have combined to drive cost structures substantially lower to improve business viability. We also note 15% of ANZ's clients have cost structures below the mid-\$3/kg MS – these aren't extreme or unrealistic cases. The case studies and other examples from Dairy NZ provide credible evidence that results can be achieved if effort is invested in the right areas.

Critical areas of focus include pasture and crop management practices, animal health/genetics, people, optimal stocking rates, usage of cost-effective supplements, avoiding feed substitution and getting good advice.

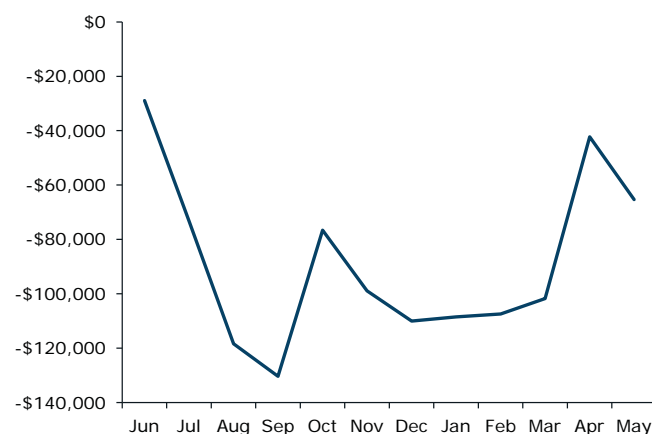
Right up front we need to acknowledge that this piece of research wouldn't have been possible without valuable input from:

1. Dairy New Zealand's Lynaire Ryan and Farm Systems Team on the principles of a pasture-rich system and Matthew Newman for the provision of economic data.
2. Michael and Megan Webster, Hauraki Plains Focus Farm group Wayne Stachurski and Steve Searle from Dairy Exporter for providing an example of a business changing to improve its financial viability. Henry and Erin Bolt for providing an example of a low-cost irrigated South Canterbury farm.

CASH FLOW PRESSURES

Cash flow stress in the dairy sector looks set to extend for another season. Our milk price forecast of \$3.95/kg MS for 2015/16 and expectations of a conservative start for 2016/17 at around the mid-\$4/kg MS translates into cash flow of \$4.01/kg MS and \$4.66/kg MS respectively for a fully shared Fonterra farmer.¹ For the average farmer this suggests revenue of nearly \$602,000 in 2015/16 and \$698,000 in 2016/17. When you map this against expected expenditure patterns it suggests a cash flow shortfall (loss-making situation) extending through to at least mid-2017. The combined funding gap across the two seasons, excluding the loan offer from Fonterra earlier in the season, is estimated to be approximately \$1.50-2.00/kg MS. Moreover, even if we assume a bounce in the 2017/18 payout, this won't flow into the bank balance until 2018.

FIGURE 1: 'AVERAGE' OWNER-OPERATOR CASHFLOW FOR 2016/17 SEASON



Source: ANZ, Dairy NZ

Dairy farmers face the difficult challenge of attempting to minimise near-term losses, whilst trying not to cut too deeply into the long-term productive capacity of the business (e.g. by reducing capital fertiliser inputs so much there is a detrimental impact on pasture production further down the track). There is a growing acceptance that 'tweaks' to current farm systems are not enough and a more substantial change to whole-farm systems is required to return farms to a lower cost structure and profit. **The degree of change required depends on one's view of the extent and speed of the recovery in farm-gate prices and whether current weakness is temporary or structural.**

¹ Milk price forecast of \$3.95/kg MS in 2015/16 and \$4.50/kg MS in 2016/17. Assumes a dividend payment of \$0.40/share - \$0.30/share is paid in 2015/16 and the balance in 2016/17. Capacity adjustment is constant at the 2015/16 level.

FEATURE ARTICLE: DAIRY SECTOR RECALIBRATION OF COST STRUCTURES

We believe prices will recover, but there is also a structural adjustment going on across dairy markets which means the new average price for bulk ingredient dairy commodities is likely to be in the low US\$3,000/t, as opposed to mid-US\$3,000/t range seen over the last nine years. Since late 2014 we have said cost structures would need to be adjusted lower to reflect the (lower) revenue environment. This assessment clearly still applies. For further details refer to the feature articles in the December 2014 and August 2015 *Agri Focus* publications <http://www.anz.co.nz/rural/rural-news-insights/agri-focus/>.

For now, however, the focus is more about survival. This means starting budgets should be set on the conservative side for 2016/17 and worked back from there. In our opinion this is around the \$4.50-\$4.75/kg MS mark on a financial year basis (including the dividend). If dairy prices lift by more than we assume, all well and good. If they don't, another tough year has been planned for at the outset helping avoid unwanted surprises like those that have occurred over the last two seasons.

Recalibrating cost structures and striking the right balance between near and long term imperatives is no easy task and will always depend on an individual's situation. The imperative to reduce the near-term cash flow shortfall (or minimise losses) is likely to be greater if the financial viability of a business is more precarious. That said, recalibrating the cost structure and productive efficiency of a farm is usually of greater significance. Signs that international dairy prices will remain low mean a lengthening in the planning horizon, rather than just short-term tweaks.

Gaining further productive and cost efficiencies are not the only options available. Other options include restructuring the business' capital structure through an equity injection or selling off part of the farm and/or non-core assets. Alternative income streams can also be utilised, with massive growth in farm-related tourism activities built around the likes of the Central Rail Trail, for example. So some 'outside the box' thinking may be required. Some farmers are also pursuing a change away from dairying into beef and crop production, as well as considering other ways they can generate additional income. All options should be tabled.

FORMULATING REMEDIES

There is a wide range of views and advice out there for navigating the current environment. Below we add our 10 cents worth.

The first suggestion would be to follow a more formal decision-making process, given the complexity of decision-making across various facets of the business. Most farmers still use 'gut feel' when making many decisions, which is great for speed and in more 'normal' conditions is fine. But in times of rapid adjustment and heightened risk it doesn't provide a basis for transformation, or capture the smaller details and nuances that make all the difference in successfully navigating change.

It's not that there's no place for instinct but it should be honed and supported by the numbers and a more formal decision-making process – particularly when dealing with significant change and complexity.

The second suggestion is to have a business plan. There is a wide range of theory and research that argues for the benefits of a business plan in providing clear direction and driving better performance. Completing a business plan:

1. **Provides a process to consider: where a business is today and where the owners want it to be in the future;**
2. **Provides a blueprint of future actions and prioritises these** according to the business' goals;
3. **Aligns key players on a business' vision, goals and key benchmarks.** This includes owners, advisers, staff and financiers;
4. **Provides an overview of a business' key strengths, weaknesses, threats and opportunities.** This provides a clear-eyed view of a business' current position and future opportunities;
5. **Gives greater focus to benchmarking progress (or the lack of it);**
6. **Crystallises ideas and possible road blocks to achieving a business' vision and goals.**

The business management cycle incorporates a number of facets but by completing a business plan it will cover off a good proportion of the evaluation, analyse and planning stages. A business template can be accessed here <http://www.anz.co.nz/rural/supporting-your-farm/rural-tools-templates/>

FEATURE ARTICLE: DAIRY SECTOR RECALIBRATION OF COST STRUCTURES

FIGURE 2: BUSINESS MANAGEMENT CYCLE



More specifically the business management cycle involves:

1. **Evaluating where the business is now both financially and in terms of both productivity versus what you want to achieve.** The clearer you are on your goals, priorities, key issues and risks, and the better you understand the business, the more options are available. Professional advisers and bankers will be able to give a view on how a business is performing, and what its risks and opportunities are.
2. **Analyse the options.** Quality advice is critical in this process, as are tools such as benchmarking, and business modelling software including Udder, Farmax, Grazing Systems Ltd, and preparing partial budgets. In too many cases, costs are taken out of budgets without the required understanding of the consequences – either for income or for other costs. Analyse all the possible options to understand the trade-offs, discuss with advisors, and then select the best one.
3. **Complete a business plan and budget on the basis of the option selected.** A business plan sets out what will be done and a budget predicts the liquidity (cash) requirements, and the likely one-year and medium-term results. A business template can be found here <http://www.anz.co.nz/rural/supporting-your-farm/rural-tools-templates/>. The business plan and budget set out intentions and demonstrate the control of a business. They are important to provide to the bank to formalise banking arrangements.
4. **Implement the chosen plan effectively.** This is where New Zealand farmers tend to be most comfortable. It is in fact of prime importance and should occupy most of one's time. But the time spent on business management is incredibly valuable too and increases the worth of time spent

implementing a plan, as it ensures focus is in the right place with the right resources.

5. **Monitor the plan** to see if it is on track, and if required, adjust it as things change. Identify the critical factors that make the business plan work and pay close attention to these.

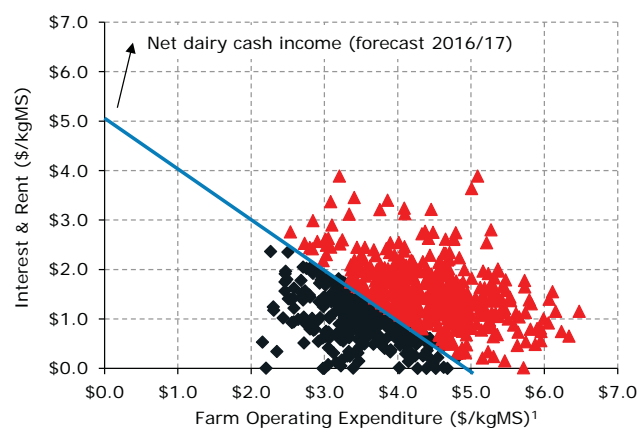
Everyone does parts of the business management cycle sometimes, but the consistent top performers make this an on-going process in a continuous cycle. Many facets are covered by Dairy NZ templates, or what other farm consultants/advisors can provide if a starting point is required. Once there is a game plan, communicate it with staff and the advisory team (financier, accountant, farm consultant, rural suppliers etc), implement it, continuously monitor results, and make necessary changes as required.

WHAT'S POSSIBLE?

Benchmark data is useful to understand what is possible. Due to the wide range of businesses and different farm systems it can sometimes be difficult to source appropriate/informative benchmarks to understand where the greatest possibilities for improvement are.

To start with it's useful to examine the balance between cash operating expenditure and debt-servicing costs to see how this affects the financial viability of a business. This can help clarify whether or not cost recalibration and/or productive improvements alone are going to be enough.

FIGURE 3: LIQUIDITY RISK IN DAIRY SECTOR



¹ Farm operating expenditure is all cash costs, excluding drawings which vary substantially between farms.

Source: ANZ, Dairy NZ Economic Survey

The above chart can help contextualise this quickly; if you have high operating expenses you can't carry too much debt. If when setting a budget total revenue is forecast to be around the

FEATURE ARTICLE: DAIRY SECTOR RECALIBRATION OF COST STRUCTURES

high-\$4/kg MS (milk price, dividend and livestock sales) it is possible to have a higher debt-servicing cost (around \$2/kg MS), as long as operating expenditure is low enough to compensate (\$3/kg MS). Equally it is possible to have higher operating expenditure (around \$4/kg MS), if debt servicing costs are low enough to compensate (<\$1/kg MS). Eyeballing the chart we note that few have operating expenses below \$3/kg MS, or debt above \$2.50/kg MS. There is huge concentration around \$3-5/kg MS for operating expenditure and \$1-2/kg MS for debt servicing.

Operating expenses and debt servicing aren't the whole story though:

- **Owner drawings usually need to be considered a direct operating cost.** These can vary substantially from business to business, but are generally considered part of the mix to help manage cash flow pressures.
- **Depreciation hasn't been included in the operating costs as it's not considered a 'cash cost'.** However, no reinvestment can only occur for a short period of time before it will take a toll. Not investing ups repairs and maintenance.
- **There are still opportunities to invest to improve performance.** In the current environment any new investment needs to have a short payback period, but it shouldn't be completely taken off the table. The investments with the shortest payback periods tend to be tax deductible. This means they can look like an increase for operating expenditure in the short term.

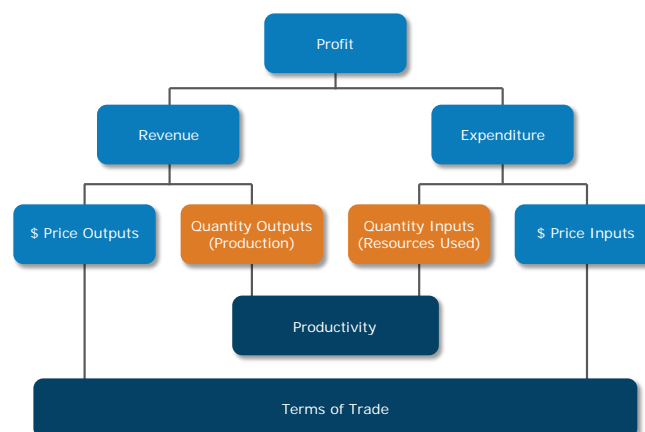
With that all said **it isn't possible for a business to remain in business with both high debt servicing costs and high operating expenditure costs** (well not for very long, anyway). And if costs or productive efficiencies can't be improved enough to close the gap between revenue and total costs it means an equity injection, selling non-core assets, or generating additional income need to be considered as part of the mix to improve business viability.

Looking at the current distribution for operating expenditure and debt-servicing costs suggests those with debt in excess of \$30/kg MS will need to look at a low operating expenditure structure (low-to-mid \$3/kg MS), but also other avenues to inject new equity, or generate other income. But ultimately it's the balance between the two that matter, given there are no hard or fast rules. This should be one of the first tests looked at in the current cash-flow constrained environment, followed by asking what is possible to recalibrate costs and/or boost productive efficiency.

KEY DRIVERS OF PROFITABILITY

Of the key drivers that determine profitability, farmers have direct control over two: productivity and cost efficiency. Both are interlinked with the ultimate goal to maximise profit by equating marginal cost with marginal revenue to find the 'sweet spot'. Finding the 'sweet spot' is of course easier said than done, with many practicalities that affect returns and costs needing to be considered, including climatic and cost shocks.

FIGURE 4: PROFITABILITY TREE



Source: ANZ, Dairy NZ

For farmers to become more profitable, they need to improve the marginal performance in their use of resources to produce outputs. This can take several forms:

1. Produce more output while utilising the same quantity of inputs;
2. Produce more, or the same output while utilising fewer inputs;
3. Produce less output, providing inputs decrease by more than outputs; or
4. Increase inputs, providing outputs increase more than inputs.

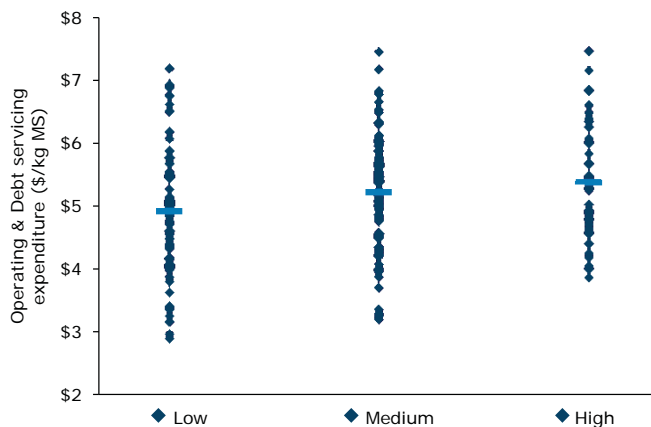
The key output for dairy farmers is milk solids, with beef generally of secondary importance. Simplistically the key inputs are land, forage, water, fertiliser, cows, labour and plant/machinery. **More specifically, land, forage, water and fertiliser are all about dry matter production (both quantity & quality) and cows, labour and plant/machinery are about the efficient harvesting of dry matter produced and turning it into milk solids.**

There is fierce debate over which system is better in a low-payout environment. Looking at the performance of different farm systems shows that on average more intensive systems have

FEATURE ARTICLE: DAIRY SECTOR RECALIBRATION OF COST STRUCTURES

a higher cost of production. However, when you examine the cost distribution it is still possible to run a low-cost operation for more intensive systems. This is usually due to the dilution effect from substantially higher output that is spread across all costs. This can be helpful when fixed costs and interest payments are a higher proportion of an operations cost base too.

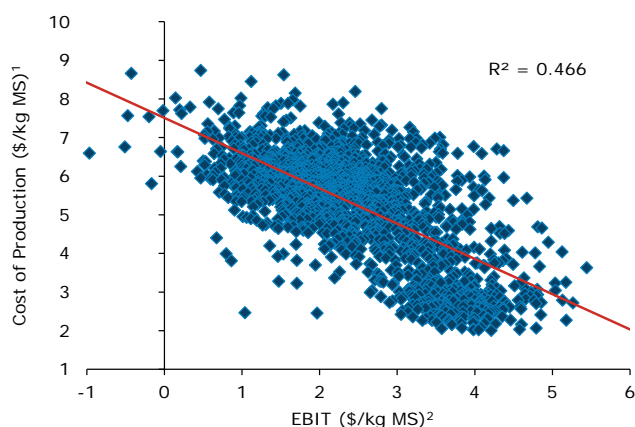
FIGURE 5: OPERATING & DEBT SERVICING EXPENDITURE BY FARM SYSTEM



Source: ANZ, Dairy NZ

Operating expenditure is a key determinant of profitability and even more so in a low-revenue environment. Indeed, cost structure explains approximately 50% of the variation in profit – top performers tend to try to run a low-cost structure no matter what the milk payout.

FIGURE 6: RELATIONSHIP BETWEEN OPERATING EXPENDITURE & PROFIT



1. Includes operating expenditure, debt servicing and drawings up to \$100,000.
2. Based-off milk price of \$5.50/kg MS, not the current milk price.
3. There are always extreme outliers due to a range of business situations and income/cost division between different enterprises.

Source: ANZ

Of course what underlies and interconnects all this is the productivity equation, which is the most critical aspect. Simply put this is about the production of dry matter (pasture and crops) and then the efficiency of turning this energy into milk solids. In practice it's more complicated and the approaches to doing it successfully vary for the chosen system.

CASE STUDIES OF POSSIBILITIES

Hauraki focus farm re-engineers for profit

Michael and Megan Webster left behind professional careers in Auckland in 2007 to become shareholders and managers of Webster Farms in Hauraki. They became the Hauraki Plains "focus farm" for the farmer group P3 Trust in June 2014, just as the reduction in dairy payouts became more evident. The P3 trust, which is supported by ANZ and DairyNZ, provided advice to develop a business strategy, farm policy and benchmarks to measure results. **With a likely payout below the previous years' and farm working expenses of \$4.70/kg MS, the Webster's developed a strategy to reduce costs without losing production.**

Michael says their role as focus farm for the region offered huge opportunities. "We've had really good support from local farmers who have come in to help on some topics and with anything we may be struggling on. We have made huge strides in some areas, particularly pasture management." **This shows that getting good quality advice for the key aspects of farm management is critical to improving performance.**

The key areas of focus have been feed, people, profit and animals. Each area has had key goals and targets defined in their business plan. As Michael points out, "We wanted a strategy and have developed four key cornerstones for the business with our goals and targets within those key areas. There's been some wins and we are chipping away in other areas". Their complete farm business plan and targets for each of the key areas can be viewed on the P3 Trust website (<http://www.dairynz.co.nz/what-we-do/focus-farms/auraki-plains-focus-farm/>).

Under the plan, game-changing decisions have been made. The first bold change was made before the focus farm monitoring began. This involved dropping a winter milking contract because it hampered farm development, and they worked out more money could be made from farming the traditional variation in the season. Winter milk was particularly challenging on the Hauraki Plains marine clay, and it provided limited opportunities for pasture renewal and pasture management of the seasonal curve to reduce imported supplementary feed.

FEATURE ARTICLE: DAIRY SECTOR RECALIBRATION OF COST STRUCTURES

Another big call was to spend money to re-grass despite the low payout outlook. One third of the farm has been re-sown since the 2015 autumn, and another 10% under-sown for denser and higher-quality ryegrass and clover. Approximately 10% of the farm was sown in chicory as a summer crop, which is then turned over into perennial pasture, while crops of turnips and maize have been taken out of the farm system to save costs.

The focus on pasture management has increased. Michael walks the farm every week, usually over three days, to assess pasture growth in each paddock. It takes two hours on a set path with pasture cover assessed by his 'eye-o-meter' and the readings are keyed into a MINDA Land and Feed cellphone app. Megan then determines the farm's feed wedge by logging into the MINDA Land and Feed from home. "The cows are grazing new grass easier and learning there's no point waiting for a truck-load of another feed to turn up, because it's all-grass and chicory supplemented only by some palm kernel."

"I can tell when the grass is starting to accelerate or slow down and can make decisions rather than looking at a tanker docket and thinking what's happening," Michael says. He usually walks the farm on his own and part of the way each week with P3 Trust project manager Wayne Stachurski.

Megan believes they were "a bit behind the eight ball in terms of farming experience" but have found willing support from great friends and the wider community. **"We are now focused on growing more grass, utilising that grass and keeping our eyes on everything on the farm to make sure we are doing everything right."**

Purchased-in feed has been reduced by about 300tDM since the P3 project started, and replaced by approximately 200tDM from chicory and 200tDM from improved pasture management and re-grassing to date. This has substantially reduced the feed cost, and the net feed gain has translated into dairy production, which is up 20,000 kg MS. **Farm working expenses are down to around \$3.40/kg MS.** This is a substantial reduction from the mid-\$4/kg MS they used to operate at. It's expected there is further progress to come on production and costs from their focus on the four pillars of feed, people, profit and animals.

South Canterbury – low-cost irrigation

Farms that have been purchased recently and are under irrigation have been seen to be more vulnerable in a low pay-out environment.

Henry and Erin Bolt have both of these disadvantages on their 185 effective ha dairy unit on the south side

of the Rangitata river. It is fully irrigated and had a high stocking rate with an equally high cost structure in line with past higher pay-out levels when they took possession on the 31st May 2015. Crucially, they have not let these imposing challenges beat them.

They are focusing on pasture management and strict routines to help lower costs and boost productive efficiency.

Their critical success factors are producing budgeted production levels at planned cost. An owner operator structure with both Henry and Erin actively involved in the farm's physical and financial day-to-day tasks helps to keep the business on track.

When they purchased the property, they planned to produce 1,630 kg MS/ha, with farm working expenses at \$4.00/ kg MS. But in response to a low milk price, they have reduced supplementary feed input and slashed overall costs. Costs areas that have been particularly zeroed in on have included animal health, breeding, supplementary feed, and vehicles, repairs & maintenance. The reduction in stocking rate and less use of supplement have lowered the production target to 1,451 kg MS/ha for the 2015/16 year. **As a result of these changes, farm working expenses are expected to come down to an incredibly low \$2.65/ kg MS – despite irrigation-influenced costs of \$0.30/kg MS for electricity and repairs and maintenance of \$0.44/kg MS.** The operation can now show a tidy profit at a milk pay-out of \$4.00/kg MS after adequate living and debt-servicing costs.

The farm supports one full-time equivalent per 205 cows, compared with the New Zealand average of 1 per 144 cows. This is due to the Bolts' hard work, its scale and the farm's efficient set-up. Including drawings, it costs only \$0.42/kg MS to staff the farm, compared with the all-farm average of \$0.99/kg MS from the 2014 Dairy Economic Survey.

As a working owner and manager, Henry is more focused on driving profit and cutting costs than an employee might be. For example, weed control is undertaken with a knapsack sprayer, saving chemical and tractor time compared to boom spraying. Better efficiency around pasture management and excellent stockmanship reduce animal health issues and other core costs too.

Strict cost control is placed on every area, but Henry believes the current farm working expense level is sustainable in the medium term. This is due to the money being spent on fertility, genetics and other improvements all being targeted at core business areas.

FEATURE ARTICLE: DAIRY SECTOR RECALIBRATION OF COST STRUCTURES

The farm is close to an all-pasture system, with only \$0.09/kg MS spent on bought-in feed for milking cows and \$0.40/kg MS on winter grazing. The stocking rate is 3.34 cows/ha, plus young stock are run on-farm. Cows are wintered off, and young stock wintered on-farm with grass, and hay made from summer surpluses. **Production per cow of 434kg MS is achieved at this relatively high stocking rate. This is achieved by harvesting 17-18 t DM/ha/yr of pasture, through “best practice” pasture management.** This includes the likes of farm walks, plate measuring, focus on ensuring correct residuals, and adherence to a spring rotation planner.

Efficiency is key to their farming operation.

There are strict routines around feed levels, animal health and weight targets for young stock. There is zero tolerance for poor grass management and non-negotiable routines for core business practices are used to drive profit.

The process to recalibrate a ‘typical’ Southland farm

ANZ Agri staff recently took part in an exercise to re-engineer a case study based on a typical Southland farm. This included advice and support from farmers and Dairy NZ experts.

They followed the business management cycle and took away the following lessons:

1. At the outset, it is essential to **understand the business’ current balance sheet and operating performance (income, expenditure and production) as well as where it is heading. This then needs to be benchmarked to identify options.**

In the case study, at forecast payouts, it was found the business would lose about \$1.1 million over three years, substantially weakening its balance sheet if nothing changed. They also found the farm harvested about 12 t DM/ha/yr, whereas top performers on similar farms harvested over 15 t DM/ha/yr. The production performance was average at 419 kg MS/cow, but a stocking rate of 2.7 cows/ha. Operating costs were high at \$4.70/kg MS.

2. Experts highlighted the importance of a **clear direction and a strong intent to turn the situation around.** This meant focusing on the things the business could directly control. With operating costs of \$4.70/kg MS in 2014/15 a goal was set to limit losses, return the business to profit and achieve a cash rate of return of 4.5% by the 2017/18 season, sufficient to cover the higher

debt-servicing cost. Experts considered the goals achievable through good strategy and best farm management practice.

3. All involved in the business recalibration examined a range of options. **The process involved taking a range of scenarios and looking at both the productive and financial implications using expert advice, three-year budgets and software to model feed budgets.** Managers came with tactics in mind, but some didn’t work as expected. “Good ideas” sometimes don’t prove to be that good when examined carefully over the medium term. A number of options that are commonly promoted as a way to reduce costs proved neutral or negative. Cost cutting certainly didn’t work on its own, and the farm system needed to be reworked to perform at a top-10% level to achieve the financial goals. This required carefully selected investments, complementary skill development and better farm management.
4. Selected options were developed into **a plan and budgets, and critical success factors were identified.** Some of the features were:
 - Better pasture management to increase pasture harvest with the “people factor” key to achieving this. This required strong intent, good advice, an investment in skills, and determination to apply proven practices.
 - Optimising cow numbers for pasture harvest, and better matched to the seasonal growth curve for pasture. Experts identified that the farm would benefit from more cows, and in the short term, heifers could be brought home.
 - A forage crop contributed to replacing the majority of bought-in supplementary feed. This translated to more feed in total, and a production increase of 80 kg MS/ha was expected.
 - Achieving the desired year two and three results required more spending in year one, rather than a ‘pure’ cost-cutting approach. The year three operating expenditure of the chosen options came down to \$3.40/kg MS (from \$4.70/kg MS).
5. Whereas the goal looked challenging, the panel of experts saw it differently. Despite backgrounds from a range of farm systems, they were in full agreement to an approach, which they saw as quite straightforward, applying proven techniques to create predictable results. From experience, the greater challenge is considered to be translating the plan into action.

FEATURE ARTICLE: DAIRY SECTOR RECALIBRATION OF COST STRUCTURES

THE BIGGER PICTURE

These three case studies are just a snapshot of the recalibration that is occurring across the industry, and what can be achieved. Dairy NZ have another nine examples with cost structures below \$3.50/kg MS (<http://www.dairynz.co.nz/farm/financial/budgets/budget-case-studies>). There is a detailed breakdown providing good benchmarks on how some of the best do it. The farms are from a variety of areas and different farm types too.

Some might just say this is the very top and therefore unrealistic for most, but **looking at the cost of production for ANZ Bank's five main regions shows nearly 15% of dairy farms have cost structures below the mid-\$3/kg MS**. This excludes debt-servicing costs, but includes drawings of up to \$100,000. This means there are many other examples out there in every area that others in the industry can draw on.

Many of the quoted break-even cost structures for the sector were set for a higher pay out environment. This is no longer the case and as the 2015/16 financial figures start to come in we expect there will be a material step-down in the industry cost structure. Tightening and lowering the cost of production distribution below the mid-\$3/kg MS is a key industry challenge to help survival and ensure the industry emerges in a strong position for when things improve.

KEY DRIVERS OF PASTURE-RICH BASED SYSTEM

Just about all the examples of low cost structures have a particular focus on the production and efficient harvesting of pasture.

This is even the case for more intensive systems, but with some slight differences.

Key decisions for a more pasture-based system should have already begun, as autumn-grown pasture needs to be rolled forward to fill the early spring deficit, to ensure sufficient pasture is available to minimise the use of supplements. Supplements can be used strategically in autumn to improve cow condition and increase pasture cover. Systems are best kept as simple as possible, which allows for ease of management.

The primary driver of a successful pasture-based system is to grow as much high quality pasture as possible on the available land and then utilise a high proportion of this pasture. It is sometimes argued that pasture is expensive due to the high capital cost of land; however, the cost of pasture depends on the question being asked.

1. **First, if the option is to harvest more of the available pasture (i.e. eat more) compared with buying in supplements, then the only costs incurred are management costs** (increasing capability and time with regards to grazing management). This equates to about 1 c/kg DM.
2. **The next option is to grow more pasture, as opposed to buying in supplementary feed.** This will involve some external inputs such as fertiliser, spraying, regrassing etc, in addition to the management costs mentioned above. This equates to approximately 10c/kg DM. So supplement needs to be cheaper than this to make it a better alternative.
3. **Only when these options have been exhausted does purchasing more land become an option to increase pasture production.** This scenario includes the capital cost of land. However, this also needs to be compared with the cost of using more supplementary feed (both feed and potential infrastructure/equipment).

When making decisions on increasing feed supply the first question that needs to be asked is whether the cows can in fact utilise more of the pasture being offered. Generally cows should be eating 15 or 16 kg DM of pasture, rather than 12 kg DM of pasture and 4 kg DM from grain, which means grass is left behind – a substitution effect. A follow-up question is whether more pasture should be grown or whether extra supplement needs to be bought.

Basic principles for a low-cost pasture-based system are:

- Matching the stocking rate to the average pasture growth curve over the best six-month growth period (e.g. October to March).
- Sufficient stock density, ensuring peak pasture growth is controlled and utilisation is high.
- Planning to fill any feed gaps with the cheapest feed source available – pasture first, followed by the most cost effective supplement.
- Ensuring autumn covers are at an optimum level, to maximise autumn and early winter growth and provide winter/spring feed. Autumn grown pasture is rolled forward to fill the early spring feed gap and minimise the need for spring supplementation.
- Ensuring cows must be calved in good condition (every cow at condition score 5 and heifers and second calvers at 5.5) – they normally mobilise 0.5-1 condition score soon after calving.

FEATURE ARTICLE: DAIRY SECTOR RECALIBRATION OF COST STRUCTURES

- Condensed calving patterns to ensure cows reach peak intake by 'balance date' when pasture growth equals herd demand.
- The strict use of a spring rotation planner to ensure feed is allocated carefully during early spring.
- The use of the '3 leaf' principle to determine appropriate grazing rotation to maximise growth.
- Attention to pasture allocation and residuals to maximise utilisation and prevent over-grazing or wastage.

The system plans to manage early spring without making or bringing in supplements.

However, if pasture growth is dramatically reduced then supplements may need to be used.

Autumn management is the key to providing appropriate pasture cover in spring.

Timely drying off and removal of culls helps reduce demand going into early autumn and, along with an application of nitrogen, makes the most of the early autumn growth rates to push feed forward from autumn to early spring.

Autumn is a key tillering period in perennial ryegrass pastures, and when managed well pastures can recover density during the autumn period.

During autumn the rotation length is set so pastures are not grazed before the 2.5–3 leaf stage and there is a continued focus on achieving target residuals of ~1500 kg DM/ha (or 7 clicks on the Rising Plate Meter). Rotation length is increased as leaf appearance rates slow down so pastures are grazed at the target leaf stage to maximise pasture yield.

Lengthening the grazing rotation works in favour of growing more pasture as leaf emergence is slower at this time of the year.

Approximately 40-50% of the total plants' yield is grown in the third-leaf stage, so slowing the rotation down to capture this growth results in maximum pasture yield. For example, if leaf emergence is approximately 15 days, then a longer round (e.g. 45 days) and grazing at the 3 leaf stage will maximise pasture growth compared with a shorter round (e.g. 22 days), at which point the plant will have only grown 1.5 leaves. Grazing at 1.5 leaves will not only reduce yield (approximately 60 – 75% of the potential yield for that round will be missed), but can also negatively impact future plant persistence. Ensuring pasture allocation is accurate and target residuals are met during this period ensures pasture quality is maximised for future rounds.

One objective of grazing management during late autumn is to transfer autumn/winter grown pasture into late winter/early spring to achieve target average pasture cover at calving.

Lengthening the rotation in autumn and maintaining it through to the start of calving, grazing at the target leaf stage (~ 3 leaves), and transferring pasture from a period of relatively low feed demand (winter, dry cows) to a period of high feed demand (early spring, lactating cows) will better balance feed supply with herd requirements.

Let's look at some of the principles in more detail:

Use pasture first – match the feed supply and feed demand curve to determine stocking rate

Calculate the average pasture growth rate over the best six-month period of pasture growth. Then divide that by the daily cow demand, e.g.:

$$\frac{\text{Pasture grown}}{\text{Cow intake}} = \frac{48\text{kg DM/ha/day}}{15\text{kg DM eaten/day}} = 3.2 \text{ cows per hectare}$$

Calculations need to be tailored for each system and farming region – e.g. a farm used as a milking platform only would have different requirements to a farm wintering one, where silage may be needed from the farm to manage winter demand.

When considering farm management change an awareness of the environmental and nutrient management considerations is needed. Stocking rate changes are best modelled with Overseer to assess environmental impacts.

Early autumn management

Even with the right stocking rate, there are feed gaps to fill.

In a pasture-rich dairy system the early spring gap is filled by using long autumn and winter rotations to push autumn and winter growth through to spring. The objective is to make the most of the early autumn growth rates to grow feed that can be carried forward. Nitrogen use boosts this growth.

In addition, autumn pasture demand is reduced by culling low-producing cows and strategic use of silage (e.g. 3-4 kg DM/cow). Supplementary feed use is targeted for this time. This strategy allows feed cover to build rapidly and body condition to improve. Building an early autumn wedge means cows can be milked longer into autumn.

Drying-off decisions are based on cow condition and feed cover targets.

FEATURE ARTICLE: DAIRY SECTOR RECALIBRATION OF COST STRUCTURES

Calculate average pasture covers required

Average pasture targets must be set and achieved at critical points from autumn through to 'balance date'.

The following example is for an irrigated South Canterbury farm, stocked at 3.6 crossbred cows per hectare, with winter growth rates of 5 kg DM/day and cows wintered off. These targets need to be calculated and tailored for every farm, as they depend on stocking rate, wintering system, whether heifers are grazed on or off farm, etc.

Example target feed covers from autumn to balance day, South Canterbury irrigated farm, cows wintered off:

- Pasture cover required on balance date – see DairyNZ Farm Fact 1.84 (<http://www.dairynz.co.nz/publications/farmfacts/farm-management/>) = 2000 kg DM/ha
- Therefore pasture cover needed at start of calving using all grass = 2400 kg DM/ha
- Therefore pasture cover to go into winter = 2200 – 2300 kg DM/ha
- Therefore pasture cover required by 1 April = 2500 kg DM/ha

Achieving the target average pasture cover at balance date is important to ensure that the cows have sufficient high-quality pasture in peak production months. If average pasture cover is too low, cows will be underfed. If average pasture cover is too high, pasture quality will decline and production will suffer when cows are forced to graze into the poorer quality pasture in subsequent grazings.

Pasture quality has a major impact on milksolids production too as it not only determines how much energy there is per kg DM eaten; it also drives cow intake. High-quality pasture is the result of good grazing management and in particular achieving target post-grazing residuals as this sets the grazing height and quality for the next round. Grazing to a height of 4cm (or 7 – 8 clicks on the RPM) will maximise the amount of green leafy material available for the cow in the grazing horizon in the next round. This material is all high energy and the cows will easily harvest down to 4cm again (the previous grazing point).

Strategic use of supplement

The timing of supplementary feed use is very strategic – it should only be used to ensure profitable production or to grow more pasture. If it is put into the system in early autumn when

grass is growing, this can allow the rotation to be extended to maximise pasture production.

This contrasts with the recent trend of extending the autumn milking period by feeding silage/other supplement in late autumn.

Longer lactations require a greater quantity of supplementary feed because the advantages of longer autumn rotations are not exploited. A higher pasture cover at the start of April means less supplement is needed to extend days in milk. It also avoids feeding out in April or May, when weather conditions may be more difficult in some regions, resulting in higher feed wastage.

Plan to avoid spring supplementation – research shows it is more challenging to make a profit feeding supplement in spring due to the high substitution rate and potential for wasted feed.

Unless properly managed so that grazing residuals are still achieved, feeding supplements in spring will mean cows eat the more costly supplement at the expense of grazing less-expensive but high-energy pasture, which is then wasted. A green leaf ready for grazing is equivalent to 12+ MJ ME (similar to high-energy supplements such as barley); however, if that leaf is not grazed until the next rotation, it then dies and the energy content drops to approximately 6 MJ ME (similar to straw). Therefore it is important to utilise the available pasture (i.e. maintain grazing residuals of 1,500 kg DM/ha) and not waste it by leaving behind high grazing residuals.

Spring management

Calving spread is planned so all cows are reaching their peak intakes around balance date. Calving spread is a combination of the calving date (commonly recommended as 50–60 days before balance date for a pasture-based system) and calving rate.

A spring rotation planner is used to ensure feed is well allocated over the tight spring period before balance date. There is a fine balance between feed supply and feed demand with the system always feeling tight for grass. **Maintaining target residuals, e.g. 1500 kg DM/ha, is another key factor – ensuring high utilisation and good-quality pasture all year round.** In fact, at this time of the year, pastures can be grazed to a post-grazing residual of 1300 kg DM/ha once without any lasting negative impact on pasture production, provided that pastures are given time to recover, i.e. not grazed before the 3-leaf stage at the subsequent grazing. Pugging damage needs to be avoided too, as it will reduce subsequent pasture growth.

FEATURE ARTICLE: DAIRY SECTOR RECALIBRATION OF COST STRUCTURES

Identify and achieve critical targets

Costs can't be cut by just dropping supplements out of the system – stocking rate adjustments, planning to plug feed deficits and timely decisions are very important. Critical factors include:

- Stocking rate and timely adjustments e.g. culling, drying off.
- Target feed covers at key dates.
- Condition score at calving – cows at 5 and heifers and second calvers at 5.5.
- Grazing residuals at 1,400 – 1,500 kgDM/ha to maintain quality.

KEY DRIVERS OF A MORE INTENSIVE SYSTEM

The basic principles behind success in a more intensive system are the same as in a lower-input system, with minor differences:

1. **Ensuring stocking rate is set to maximise utilisation of home-grown feed (pasture and crop).** Generally as the amount of supplement in the system increases, pasture utilisation decreases. Increasing stocking rate to ensure pasture utilisation is maintained is vital.
2. **Focus on pasture management.** With increasing supplements in the system, there is a need to focus on pasture and key performance indicators such as pre-grazing yields, post-grazing residuals and allocation to ensure pasture is not wasted and the maximum response to supplements is achieved.
3. **Focus on cost control and maximising the return from investment into supplements.** This includes focusing not just on the purchase price of the supplementary feed, but the costs associated with feeding and minimising feed wastage. Dairy NZ's supplementary feed calculator can help with tactical supplementary feed decisions (<http://www.dairynz.co.nz/feed/feed-management-tools/supplement-price-calculator/>).

SUMMARY

There are many uncertainties on the timing and extent of the recovery in farm-gate revenue. These uncertainties at the macro level (NZD, dairy prices, China) will not go away. Farmers need to focus more than ever on the levers they can control, which are microeconomic in nature and involve managing costs and delivering more (or the same) with the same (or less).

Even though farm systems are more uniform in the dairy industry compared to the likes of the meat & fibre sector, there is still a wide variation in financial performance. Indeed, while the average cost structure is often quoted around the low-\$5/kg MS mark, the range around it is at least +/- \$2/kg MS. This suggests there is still plenty of opportunity for the industry average to move lower and distribution to tighten.

The two critical levers farmers have direct control over are productivity and cost efficiencies. Both are interlinked with the ultimate goal of maximising profit by equating marginal cost with marginal revenue to find the 'sweet spot' – not simply maximising output or minimising cost per kg MS, but fine-tuning according to the payout as well.

In order to find the 'sweet spot' for each farm a more formal decision-making progress needs to be followed given the complexity of decision making involved across various facets of the business. **This involves evaluating where the business is currently placed, analysing the options, completing a business plan and budget on the basis of the option selected, implementing the chosen plan effectively and monitoring/refining the plan.**

Those who can respond and adapt best will emerge in the strongest position. The case studies provide credible evidence that good results can be achieved if effort is invested in the right areas. There are many things that need to be done well, but critical areas of focus are often pasture and crop management practices, animal health/genetics, people, optimal stocking rates, usage of cost-effective supplement, avoiding feed substitution and perhaps most importantly of all, getting good, tailored advice.

THE MONTH IN REVIEW

SUMMARY

An early finish to the milking season is expected, leaving supply down 3% y/y. Sheepmeat supply is expected to tighten significantly over the remainder of the season. Beef supply could too, but much will depend on the cull of dairy cattle. Good quality and record-sized pipfruit, grape and kiwifruit crops are expected in 2016.

MOTHER NATURE

After widespread rainfall in January it was generally drier for most areas in February and early March. However, widespread rain over the second half of March and early April has helped ease the pressure, but also created other animal health issues such as rising facial eczema spore counts. The driest parts of the country have been the bottom of the North Island, North Canterbury and North Otago, which will be looking for more rain before temperatures cool too much. The northern half of the North Island has had a good growing season with regular warm northerly rain.

DAIRY

Milk supply for the 2015/16 season is currently tracking 1.6% behind the same period last year. Despite healthy pasture covers in most of the major dairying regions, an earlier finish to the season is expected. This is due to the need to conserve pasture for the winter/spring with the use of less bought-in supplement and more farmers trying to winter cattle on-farm instead of grazing out. **This means supply is expected to finish around 3% back on last year.**

The focus will increasingly start shifting toward the 2016/17 season. **Industry forecasts are for another large cull cow slaughter, but not quite as large as the year before.** In total 993,000 cull cows are expected (-16% y/y), which would keep the number of dairy cows in milk fairly steady next season. This would still be 4% down from the peak in 2014. Currently the cull cow slaughter is tracking only 13% back on the same period last year, but it's early days yet.

Maize silage has now been harvested and will mainly be used to fill the feed gap that occurs in early spring. **The drop in demand for supplementary feed from the dairy industry has resulted in a surplus of feed grains, baleage, maize silage and palm kernel.** A lack of storage space for feed means there is a lot of cheap feed available at the moment.

MEAT AND FIBRE

A significant tightening in sheepmeat supply over the rest of the season still looks in store. Both lamb and mutton supply are still slightly ahead of the same period last year despite industry forecasts of a seasonal decline of -8% and -10% respectively.

Lamb supply tightened through January and February, leading to speculation of a short-term uptick through to April as the next draft of lambs hit heavy weights. However, beyond a possible short-term uptick, **if industry forecasts are to be released we'll see lamb slaughter tighten by 16% (-1.7m head)** over the remainder of the season.

It's the same for mutton, with supply expected to be back significantly (-33%) over the rest of the season – and this has certainly started to show up recently. If mutton supply doesn't slow, it would imply yet another fall in breeding ewe numbers, which would reduce the size of the 2016 lamb crop. Early tupping conditions in some regions are not ideal either, with facial eczema concerns high and pasture covers short from Gisborne south.

Beef is fairly evenly poised. Given the strength of the store market, prime cattle are likely to be in short supply. However, whether overall beef supply drops 10% as forecast will depend on the cull of dairy cattle over the next two months.

HORTICULTURE

The 2016 grape growing season has certainly had many challenges, but fruit harvested to date is reported to be of excellent quality. Quality strategic decisions regarding management of heavy crop loads and disease pressures have been critical throughout the season. However, signs of stressed vines are increasingly apparent round the Marlborough district – with late/slow ripening evident. **The consensus view is that the 2016 vintage will be materially above the 2015 vintage (326,000t) and quite probably above the 2014 vintage of 445,000t.**

A 5% increase in pipfruit exports and a record-sized crop is expected in 2016. Nelson lost a significant amount of fruit (1.3 million TCEs, or 22% of the potential crop) in December to a hail storm. However, a heavier crop to start with and an expected 9% increase in the Hawke's Bay crop provide an offset.

The 2016 kiwifruit crop is expected to post a new record too. Some crop management is anticipated to avoid oversupplying the market, including increasing the average fruit size to provide market differentiation. Gold volumes are expected to double to 52 million trays and the current hanging Green crop is nearly 89 million trays (up from 81 million trays in 2015). Zespri seem comfortable that the market can handle the extra fruit and are releasing 400 hectares of additional Gold3 licenses this year. A further three 400-hectare tranches of licence are expected to be released in 2017, 2018 and 2019 depending on Gold3's ongoing market performance. There are currently 4,800 hectares of Gold3 planted in New Zealand.

RURAL PROPERTY MARKET

SUMMARY

Sales activity points to a two-speed rural property market. Expectations of pressure on dairy cash flows persisting into 2017 and signs of a structural adjustment lower in dairy prices are weighing on buyer expectations and valuations. The flipside is still-elevated vendor expectations, confidence in the medium-term outlook, interest rates at record lows (though credit spreads need watching), a resilient milk supply productivity story, and cost efficiency gains. These offsets have seen an orderly adjustment to date: dairy land prices are well off their peaks, but with good support for top-tier assets and less so for the lower tiers. Further weakness in prices remains on offer overall. Arable and finishing land prices have also been under pressure lately due to lower domestic grain prices and dairy support revenue. All other farm types continued to see robust turnover and solid prices in the New Year supported by generally stable-to-better earnings prospects.

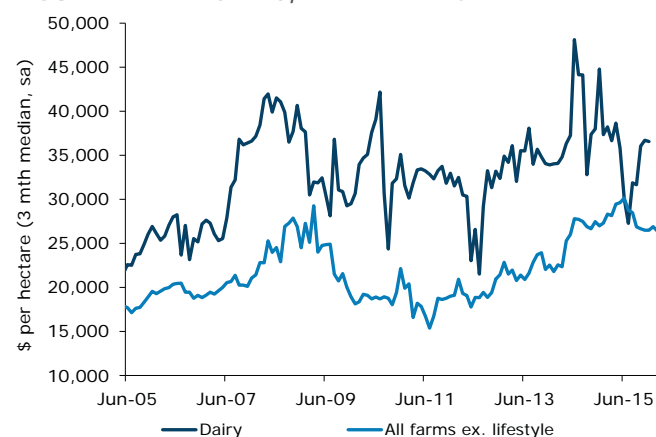
The latest REINZ data paints a picture of relative calm at an aggregate level. Total turnover

continues to hover above the 10-year average and is running above the same time last year. Average prices, while slightly back on the same period last year, have been relatively stable over the last six months in a range of \$26,000-\$27,000/ha. While this is 5% down from the record-setting 2014/15 period they are still high relative to underlying cash flow.

However, the high-level aggregates hide underlying cross-currents. Year-to-date turnover for dairy properties in 2015/16 is lower and average prices are back 10-15% versus the same period a year earlier. Outside of dairying, year-to-date turnover in 2015/16 of all other farm types has been steady to higher. Price direction is a little more mixed with finishing and arable prices down, but both are off very elevated levels. This seems to be part compositional, in terms of where sales are occurring, as well as reflecting some knock-on impact of the dairy situation to other supporting land uses (i.e. supplementary feed and grazing).

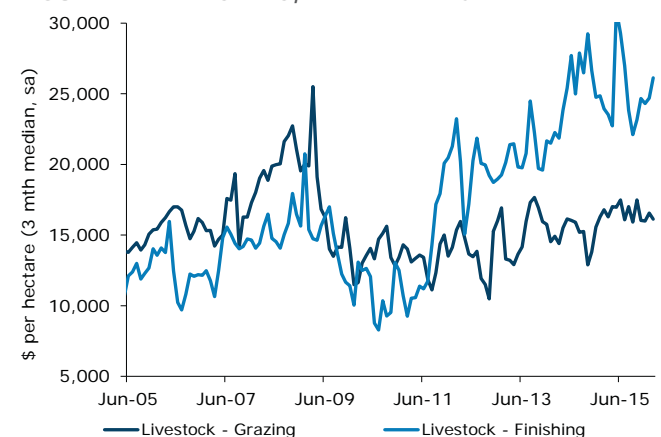
3-Month Seasonally Adjusted		Current Period	Previous Period	Last Year	10-Year Average	Chg. P/P	Chg. Y/Y	Chg. P/10yr
Dairy	Number of Sales	53	58	68	65	↓	↓	↓
	Median Price (\$ per ha)	36,600	36,700	44,800	33,000	↓	↓	↑
Livestock – Finishing	Number of Sales	71	92	61	67	↓	↑	↑
	Median Price (\$ per ha)	26,100	24,700	23,900	17,200	↑	↑	↑
Livestock – Grazing	Number of Sales	207	206	197	197	↑	↑	↑
	Median Price (\$ per ha)	16,100	16,500	17,000	15,700	↓	↓	↑
Horticulture	Number of Sales	65	67	70	43	↓	↓	↑
	Median Price (\$ per ha)	236,300	233,600	244,700	156,500	↑	↓	↑
Arable	Number of Sales	40	44	31	21	↓	↑	↑
	Median Price (\$ per ha)	40,800	39,500	43,400	31,100	↑	↓	↑
All Farms ex. Lifestyle	Number of Sales	450	485	443	424	↓	↑	↑
	Median Price (\$ per ha)	26,400	26,900	28,300	22,100	↓	↓	↑
Lifestyle	Number of Sales	2,210	2,222	1,767	1,535	↓	↑	↑
	Median Price	540,000	543,000	527,000	464,000	↓	↑	↑

FIGURE 1. FARM SALES, MEDIAN PRICE



Source: ANZ, REINZ

FIGURE 2. FARM SALES, MEDIAN PRICE

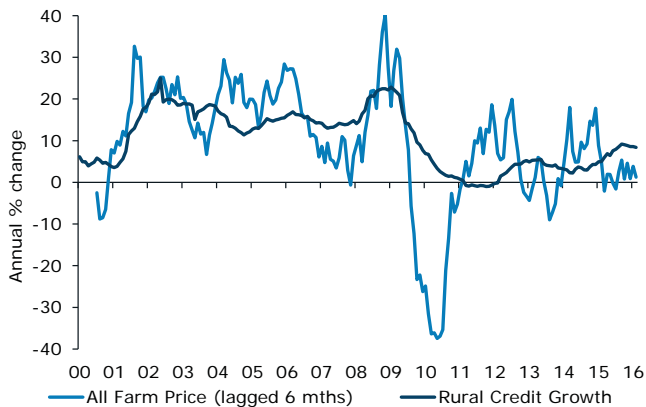


Source: ANZ, REINZ

RURAL PROPERTY MARKET

The availability and cost of credit plays an important role in the rural land market. Indeed, if you look back over the last 20 years there is a reasonable enough relationship between rural credit growth and the trend in land prices. As asset prices rise, more leverage is achievable. Lower interest rates boost valuations and allow even more leverage. The wheels are in motion; it's called the credit accelerator. Of course the returns and cash-flow need to stack up too; the credit accelerator can rapidly turn into a decelerator.

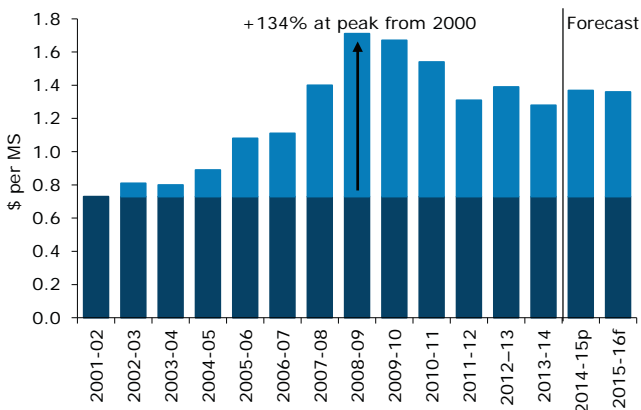
FIGURE 3. RURAL LAND PRICES AND CREDIT GROWTH



Source: ANZ, REINZ, RBNZ

Interest rates being paid by landowners are at 30-year lows, which is as far back as our records extend. **This is supporting both land values and cash-flow (with many farmers on short-term interest rates).** Average dairy farm interest costs have fallen nearly \$0.40/kg MS since 2008, despite a \$5.50/kg MS (33%) rise in core debt over the period.

FIGURE 4. INTEREST AND RENT COSTS FOR AVERAGE DAIRY FARMER



Source: ANZ, Dairy NZ

It's a similar but slightly different story for many other sectors. Credit growth hasn't been nearly as strong for most other sectors as it has been for dairying, so other sectors' debt-servicing metrics have improved substantially. As always there is a wide range of what businesses are doing with lower interest costs, whether repaying debt, reinvesting in other areas, or expanding. But the role the availability and

cost of credit plays in the rural land market shouldn't be underestimated. **At present it looks like interest rates may go lower yet and credit continues to flow, providing substantial support for land prices.** But two caveats need to be put forward. First, one of the reasons the OCR is likely to go lower is because funding costs offshore have risen. That will partly offset the impact of lower wholesale rates in terms of retail borrowing rates. The OCR cut in March was not fully passed on. Second, deteriorating financial performance will alter risk grades/margins.

Dairy turnover is now running at about 80% of the 10-year average. Average prices are back 10-15% on the same period last year. Anecdotally there is still good demand and prices being paid for quality properties. Lower-quality properties are often struggling to find buyers though. A lot of smaller parcels of land are still being bought by neighbours. For larger/stand-alone operations buyers include foreign investors, wealthy family businesses, Maori and other corporate enterprises.

In the month of January, 14 dairy farms were sold at an average sale value of \$30,100/ha, or \$32/kg MS. The average farm size was 112 hectares and the average production/ha was 935/kg MS. In February, 13 dairy farms were sold with an average sale price of \$31,300/ha, or \$37/kg MS. The average farm size was 120 hectares and production/ha was 836/kg MS. That's a material correction from the peak (around the low-mid \$40/kg MS) but still respectable valuation levels when we eye the past decade.

Year-to-date finishing property prices in 2015/16 are back 8% on the same period a year before. Overall turnover has dropped.

This may mean that lower buyer demand from the dairy sector is starting to hit. But equally, turnover in late 2015 was strong, suggesting listings could have been exhausted. **Arable property prices have rebounded somewhat from late 2015.** However, most of it looks compositional, with higher sales volumes in Auckland and Canterbury. Prices are expected to remain under some pressure given lower domestic grain prices and dairy support revenues.

Grazing property prices remain in their recent range of \$16,000-\$17,000/ha, which matches the highs seen over the last couple of years. **Monthly turnover remains around the 10-year average.** While sheepmeat prices and dairy-support activities are applying some pressure to budgets, the offset is better beef, wool and deer revenues. Generally stable earnings prospects (depending on livestock split), combined with other supportive factors such as low interest rates, are behind the firm prices.

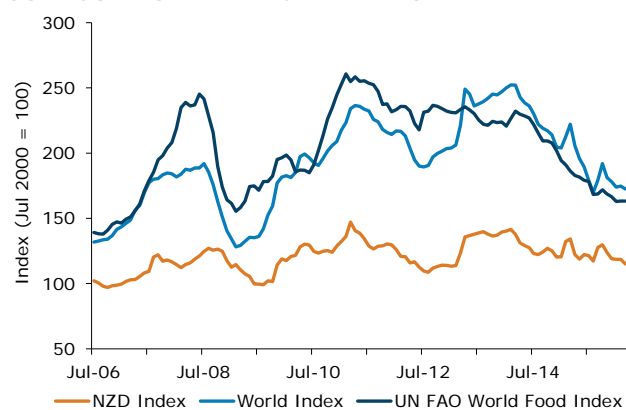
Turnover of horticultural property businesses has remained near recent highs. Much of the activity has been driven by kiwifruit orchard sales in the Bay of Plenty and fresh produce businesses that service the Auckland market.

KEY COMMODITIES: OVERALL INDEX AND DAIRY

SOFT COMMODITY PRICE INDICES

	Current Month	3 Mth Trend	Last Year	Chg. M/3M	Chg. Y/Y
ANZ NZD Index	115	119	134	↓	↓
ANZ World Index	172	176	222	↓	↓
FAO World Food Index	163	164	186	↓	↓

SOFT COMMODITY PRICE INDEXES



Source: ANZ, FAO

Global and New Zealand soft commodity prices have shown signs of basing since the start of the year. This potentially ends a run of downward pressure that had lasted two years. However, there are wide divergences between sectors and prospects for 2016.

The emerging story is large winter wheat supplies and the possibility of a large US summer corn crop.

Increased fresh supply, at a time of already high stocks from previous harvests, is expected to place downward pressure on already low prices. It's not the direct impact that potentially hurts New Zealand's soft commodity basket, but the indirect impact of supporting competitor's yields via decreased input costs. Milk yields in the US and elsewhere will be supported with a low corn price as it's generally 50-60% of total feed inputs. It's a similar story for meat protein. Intensive feed systems tend to generate higher yields when feed costs are lower.

Dairy prices continue to 'bounce along the bottom' and are likely to do for some time. Farmers should be budgeting conservatively for 2016/17. We suggest using a milk price around the mid-\$4/kg MS. Current prices only convert to \$4/kg MS, so we still assume some uplift in prices.

European milk supply remains high and most of the excess is being turned into skim milk powder (SMP), butter and cream. A large proportion of the SMP is being placed into intervention stocks, which the European Commission announced it would double in early March to 218,000 tonnes, with 100,000 tonnes for butter. At the current rate SMP is entering intervention it is expected to be full by June. The last time intervention was activated was between March and October 2009 when 273,682MT of SMP was purchased – this took nearly three years to sell. The market price for butter remains above intervention levels meaning no product has been placed into the scheme yet.

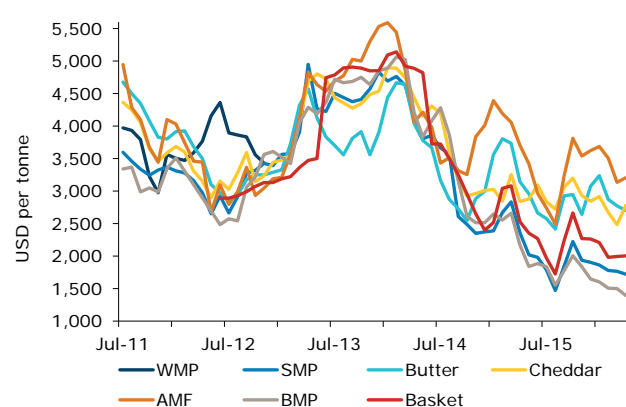
The intervention price for SMP is approximately US\$1,850/t, and when you add the milkfat stream (butter, cream, AMF) it equates to a WMP equivalent of around US\$2,200/t. **So while increasing intervention volumes at a fixed price reinforces the price floor, it is equally likely to delay and cap any recovery in market pricing as product is resold over the 2016/17 season.**

The offset could be the potential for whole milk powder (WMP) to outperform. WMP is much more driven by NZ supply and Chinese and oil producing countries' import demands. We expect NZ's milk supply to be lower in 2016/17. Oil prices have stabilised and there is an expectation of some further recovery over the second half of 2016. In China, supply appears to also be easing back as high production costs and falling milk prices squeeze returns to milk producers. Imported WMP is also more attractively priced than domestic Chinese product. At some point this is likely to see a pick-up in import demand, but we remain cautious as China is still somewhat a black box.

OCEANIA DAIRY PRICE INDICATORS

USD per tonne	Current Month	3 Mth Trend	Last Year	Chg. M/3M	Chg. Y/Y
Milk Price YTD (\$ per MS)	3.85	\$4.00	\$4.40	↓	↓
Milk Price Forecast (\$ per MS)	3.95	\$4.22	\$4.50	↓	↓
Whole Milk Powder	2,013	2,031	2,492	↓	↓
Skim Milk Powder	1,721	1,802	2,360	↓	↓
Butter	2,702	2,960	3,143	↓	↓
Anhydrous Milk Fat	3,203	3,442	3,703	↓	↓
Butter Milk Powder	1,395	1,535	2,169	↓	↓
Cheese	2,778	2,690	2,838	↑	↓

DAIRY PRODUCTS – NZ EXPORT MARKET PRICES



Source: ANZ, GlobalDairyTrade

KEY COMMODITIES: BEEF AND LAMB

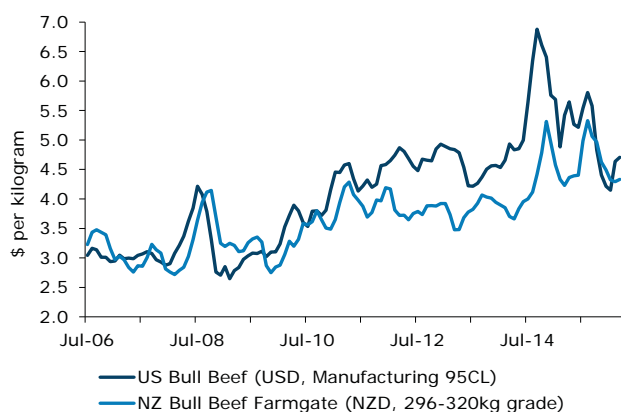
BEEF PRICE INDICATORS

\$ per kg	Current Month	3 Mth Trend	Last Year	Chg. M/3M	Chg. Y/Y
NZ Bull Beef ¹	4.33	4.37	4.23	↓	↑
NZ Steer ¹	4.79	4.80	4.45	↓	↑
NZ Heifer ¹	4.22	4.23	3.88	↓	↑
NZ Cow ¹	3.07	3.06	2.99	↑	↑
US Bull Beef ²	4.71	4.33	5.42	↑	↓
US Manu Cow ³	4.20	4.01	4.99	↑	↓
Steer Primal Cuts	7.55	7.57	8.23	↓	↓
Hides ⁴	59.2	58.6	65.8	↑	↓
By-Products ⁴	43.5	45.8	52.6	↓	↓

¹ (NZD, 296-320kg Grade Bull & Steer), (NZD, 195-220kg Grade Heifer) (NZD, 160-195kg Grade Cow)

² USD, Manufacturing 95 CL ³ USD Manufacturing 90 CL ⁴ USD\$ per Hide

BEEF INDICATOR PRICES



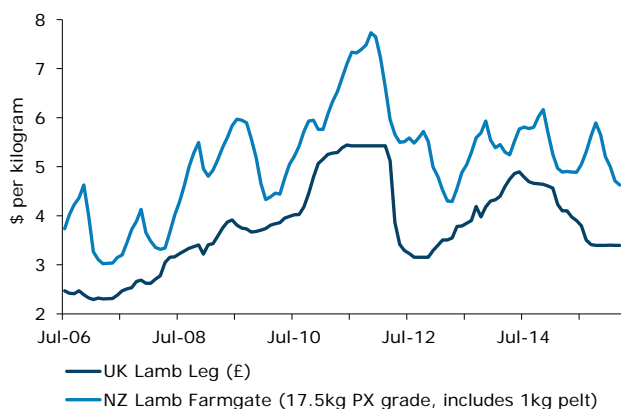
Source: ANZ, Agrifax

LAMB PRICE INDICATORS

\$ per kg	Current Month	3 Mth Trend	Last Year	Chg. M/3M	Chg. Y/Y
NZ Lamb ¹ (NZD)	4.63	4.98	4.89	↓	↓
UK Lamb Leg (£)	3.40	3.40	4.10	↓	↓
Rack US (USD)	14.3	14.6	15.4	↓	↓
Flaps (USD)	3.50	3.93	5.15	↓	↓
Skins ²	3.81	3.58	2.69	↑	↑

¹ 17.5kg PX grade, including 1kg pelt ² USD per skin

LAMB INDICATOR PRICES



Source: ANZ, Agrifax

The supply of cull dairy cows remains front of mind for the NZ beef market into early June.

The industry is expecting another large turn-off, but not quite as large as the year before. Anecdotally this appears to be playing out in the North Island with processors busy, but not overloaded and having the ability to take some South Island excess. In the South Island it's a slightly different story with production capacity harder to come by and with longer wait times. An increase in cow meat offering from NZ has seen US import prices ease. Combined with a higher NZD/USD this has placed downward pressure of \$0.30-\$0.40/kg on cow schedule prices over the past month.

Farm-gate prices for prime and bulls haven't been hit so hard, only falling \$0.15-\$0.20/kg.

Prospects for the spring remain positive with some market talk of early contracts being offered around the \$6/kg mark. Confidence in the beef price, a lack of dairy grazing, good pasture levels in many cattle finishing areas and a lack of other alternatives has all spilled over into impressive prices for weaner cattle. Steers in the North Island are generally making \$3.60-\$3.80/kg, while \$3.60-\$3.70/kg is common through the South Island.

We expect tight supply in the US, NZ and Australia will provide support for beef prices in the spring/early summer.

The pull back in Australian exports appears to be clearing the way for New Zealand product into key Asian markets. Prices in China are under pressure from cheap South American supplies (mainly Brazil), but a lift in demand from South Korea, Taiwan and Indonesia, to match Chinese pricing for some cuts, appears to provide plenty of optionality for processors to extract good returns.

Low frozen product prices and renewed NZD strength has left sheepmeat schedule prices in the doldrums.

This means even with a significant tightening in tradable supply expected, it will be a push to get lamb schedule prices back to the high-\$5/kg to low-\$6/kg during the July-September period.

Lamb market signals are mixed. The US and European markets remained steady. Enquiry from the underperformers of China and the Middle East has been deafeningly silent in recent months, but is starting to pick up. Frozen prices for the likes of forequarters and flaps need to lift substantially to support average carcass pricing through the winter with less opportunity for chilled sales. It's a similar situation in the UK with the market switching from a chilled to frozen product focus post the Easter period. Easter sales look to have been fairly steady suggesting no overhang of chilled product, but domestic UK supplies will begin to pick-up from the late autumn. UK lamb supply is expected to be back 2.5% y/y over the next six months creating some opportunities, but this was off a high level last year. The market collectively remains challenged and farmers might have to wait until the new season for lamb schedule prices to move above the mid-\$5/kg.

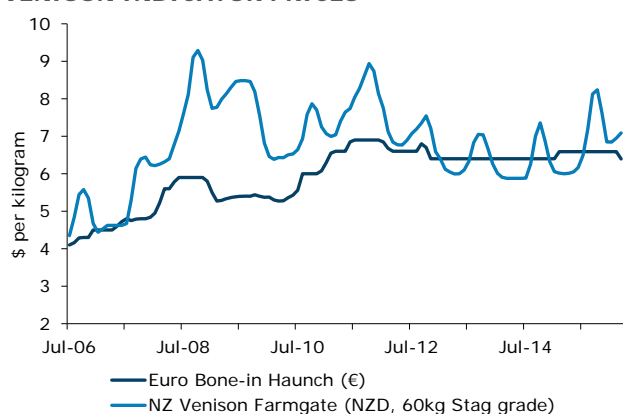
KEY COMMODITIES: VENISON AND WOOL

VENISON PRICE INDICATORS

\$ per kg	Current Month	3 Mth Trend	Last Year	Chg. M/3M	Chg. Y/Y
NZ Stag ¹	7.09	6.88	6.00	↑	↑
NZ Hind ¹	6.98	6.77	5.90	↑	↑
Euro Bone-in Haunch (€)	6.40	6.59	6.59	↓	↓
Boneless Shoulder (€)	4.94	4.93	4.87	↑	↑
Loin (€)	17.6	16.0	15.9	↑	↑

¹ (60kg Stag AP grade), (50kg Hind AP grade)

VENISON INDICATOR PRICES

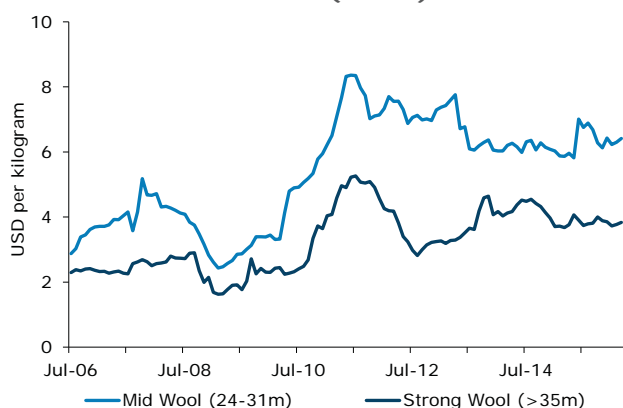


Source: ANZ, Agrifax

CLEAN WOOL INDICATOR PRICES

\$ per kg	Current Month	3 Mth Trend	Last Year	Chg. M/3M	Chg. Y/Y
NZ Mid Wool (24-31m)	9.52	9.52	7.85	↔	↑
NZ Strong Wool (>32m)	5.69	5.70	4.92	↓	↑
USD Mid Wool (24-31m)	6.42	6.32	5.86	↑	↑
USD Strong Wool (>32m)	3.83	3.78	3.68	↑	↑

WOOL INDICATOR PRICES (CLEAN)



Source: ANZ, Beef + Lamb NZ, Wool Services International

Venison prices are at 7-year highs for this time of year. Expectations are that they will rescale last year's heights of the low-\$8/kg into the October European game season. There could be some further upside if supply tightens more than anticipated and/or the NZD/EUR turns lower yet.

Indeed production has taken a sharp downturn through early 2016. Venison production over January and February fell 22% on the same period the year before. The sharp decline was led by hind turn-off dropping 31%. The decline in hind turn-off has been particularly notable in the South Island. This indicates confidence appears to be growing given better prices, with farmers seeking other alternatives from sheep and dairy support activities.

The one area venison exporters will need to watch is the margin between venison and competing meat protein prices. This is widening at present with price falls for other meat proteins contributing just as much as venison prices increasing. Should the gap continue to widen, we may see restaurateurs relooking at their margins and contemplating lower-priced protein alternatives.

Velvet prices continue to hold up at healthy levels. After increasing to \$120/kg (+20-25%) last year prices are holding at similar levels this season. Production is slowly increasing with NZ gaining market share. Around 70% of the product is still sold via the commodity channel, but there are continued efforts to increase share in the functional food category.

Coarse wool prices have remained remarkably resilient to higher seasonal supply and a strengthening NZD more recently. The main driver appears to have been some restocking by Chinese buyers since the start of the New Year after a hiatus in late 2015. Coupled with a year-on-year decline in auction volumes and steady demand out of India and the main European export destinations (apart from Italy), this appears to have supported price tension.

Indeed the number of bales offered at auction during the first quarter of 2016 was back 6% on the same period a year before. A comparison with the five-year average shows a 16% decline. There was a slight drop in the clearance rate during March due to wool quality not meeting contract specifications of the buyers. However, clearance rates for Q1 2016 were also higher than historical averages with steady demand across key export destinations.

Year-to-date (July-February) wool exports tell a similar story. Overall export volumes are back nearly 6% on the same period last year. China accounts for the entire decline (-12%, or 4,800 t) despite recent restocking activity. However, demand from India, France, UK, Lithuania and Iran has increased by 11%, or 1,690 tonnes on the same period, providing some offset.

KEY COMMODITIES: GRAINS

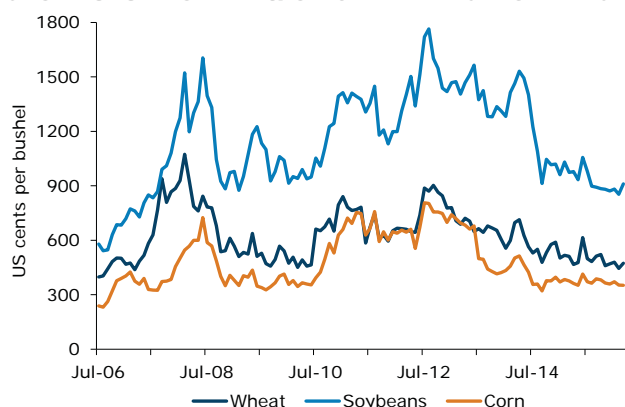
GRAIN & OILSEED PRICE INDICATORS

	Current Month	3 Mth Trend	Last Year	Chg. M/3M	Chg. Y/Y
NZ Milling Wheat ¹	350	352	417	↓	↓
NZ Feed Wheat ¹	304	306	383	↓	↓
NZ Feed Barley ¹	292	291	372	↑	↓
Palm Kernel Expeller ¹	211	238	262	↓	↓
US Wheat ²	4.74	4.65	5.12	↑	↓
US Soybeans ²	9.11	8.69	9.73	↑	↓
US Corn ²	3.52	3.61	3.76	↓	↓
Australian Hard Wheat ¹	342	352	386	↓	↓

¹ NZD per tonne

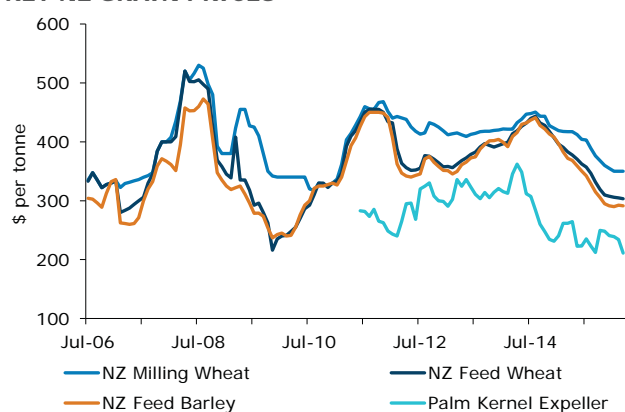
² USD per bushel

CBOT FUTURE GRAIN & OILSEED INDICATOR PRICES



Source: ANZ, Bloomberg

KEY NZ GRAIN PRICES



Source: ANZ, Agrifax

The grain market remains depressed with full silos and little buyer enquiry, especially from dairy farmers. There seems to be an oversupply of just about everything from wheat, barley, maize silage/grain through to palm kernel all looking for a home. There has been some short-term demand from the poultry sector for maize and steady demand from the piggery sector. There are some small pockets of demand from dairy and goat farmers, but any buying is being done at spot to fulfil short-term needs. **There is very little interest in forward contracts, which will concern growers with full silos.**

With dairy farmers buying little, other buyers are trying to use this as an excuse to negotiate further discounts. With the dairy season nearing an end farmers have the flexibility to dry-off now with little incentive due to a \$3.90/kg MS milk price to extend lactation via bought in feed. Combined with a conservative start being expected for the opening milk price at the end of May, it's unlikely there will be a pick-up in demand before the spring/summer period now. This leaves growers stuck between a rock and a hard place. They either discount further, or store product until the spring/summer on the hope dairy demand improves.

The other risk is the international scene for grain prices. While there isn't a huge difference between international (landed) and domestic prices at present there looks like there could be some renewed pressure on global wheat and corn prices over coming months. Indeed barring a major weather event in key wheat producing areas, wheat prices should face renewed pressure post April as new supplies hit the market. For example, a mild winter in Eastern Europe has increased the confidence of adequate new supplies from the Black Sea region. Warmer than average temperatures and favourable soil moisture have increased the yield potential of Russia's wheat crop.

In the US, early indications are that growers intend to plant 93.6m acres of corn during 2016, up 6% from last year. If this is realised, 2016 will see the third largest planted corn acreage across the US since 1944. The main driver of the increase is higher returns compared with other alternative crops. So as long as Mother Nature plays ball during the growing season, it's expected corn prices could be \$30-\$35/t (-14%) lower over 2016/17. A lower NZD could offset some of this decrease, but the other supportive factor for international grains is low shipping costs too.

The PKE market appears to be overloaded with high imports and slow end use. The summer/autumn period has turned out better than anticipated for pasture growth in most dairy regions reducing its use. Current prices are around \$190/t in most regions, this down from \$220/t in early March.

KEY COMMODITIES: HORTICULTURE

HORTICULTURE PRICE INDICATORS					
	Current Month	3 Mth Trend	Last Year	Chg. M/3M	Chg. Y/Y
Kiwifruit (USD per kg)	2.7	2.7	3.4	↑	↓
Apples (Weighted Index)	244	244	201	↔	↑
Average Wine Price ¹	4.62	4.84	4.55	↓	↑
Packaged White Wine ¹	5.51	5.41	5.89	↑	↓
Packaged Red Wine ¹	8.18	9.96	8.83	↓	↓
Bulk wine ¹	3.29	2.87	2.85	↑	↑

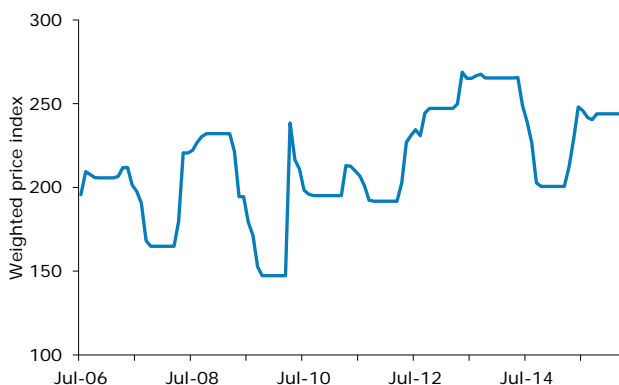
¹ USD per litre

GREEN KIWIFRUIT INDICATOR PRICE



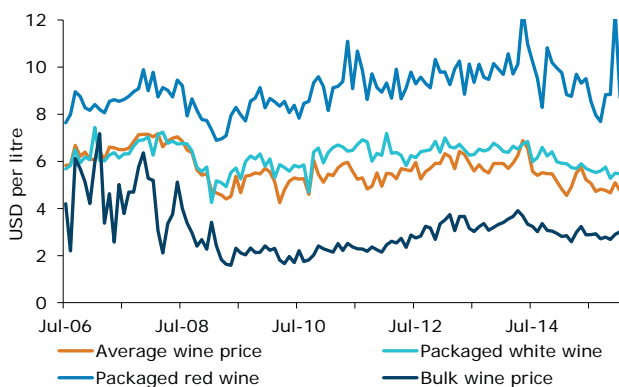
Source: ANZ, Zentrale Markt- und Preisberichtsstelle

APPLE INDICATOR PRICE INDEX



Source: ANZ, Zentrale Markt- und Preisberichtsstelle

WINE INDICATOR PRICES



Source: ANZ, NZ Winegrowers

The 2016 grape growing season has certainly had many challenges, but fruit harvested to date is reported to be of excellent quality.

Quality strategic decisions regarding management of heavy crop loads and disease pressures have been critical throughout the season. However, signs of stressed vines are increasingly apparent round the Marlborough district – with late/slow ripening evident. **The consensus view is that the 2016 vintage will be materially above the 2015 vintage (326,000t) and quite probably above the 2014 vintage of 445,000t.** This will leave plenty of product to service existing markets and provide scope to search for new opportunities.

The pace of sales for the 2015 vintage has lifted lately. Year-to-date sales of Sauvignon Blanc are up 4%, with an estimated 56% of the crop sold. This is ahead of last year, but behind the usual pace of sales. **Of the big three markets, exports to the US have surged to 42.65m litres (+25% ytd).** The lion's share of growth is being driven by bulk wine volumes, which are up 56% to 20m litres. **The surge in US exports is coming at the expense of the Australian market** with year-to-date volumes back 13% to 35.1m litres. Bulk wine sales are down by 32% to 11.5m litres. The UK market is fairly steady by comparison with export volumes largely unchanged. The US is the highest paying market for bulk wine at present with an average year-to-date price of \$4.76/l. This is nearly 20% above both the UK and Australia; hence the significant jump in exports.

The 2016 kiwifruit crop is expected to post a new record too. Some crop management is anticipated to avoid oversupplying the market, including increasing the average fruit size to provide market differentiation. Gold volumes are expected to double to 52 million trays and the current hanging Green crop is nearly 89 million trays (up from 81 million trays in 2015). Zespri seem comfortable that the market can handle the extra fruit and are releasing 400 hectares of additional Gold3 licenses this year. A further three 400-hectare tranches of licence are expected to be released in 2017, 2018 and 2019 depending on Gold3's ongoing market performance. There are currently 4,800 hectares of Gold3 planted in New Zealand.

Zespri have announced they are looking to maintain green returns at \$5.00/tray and gave a forecasted range of \$4.80 to \$5.80/tray for the 2016/17 season. For Gold, early modelling suggests per tray returns in 2016/17 should be somewhere in the range of \$7.70 to \$9.00, depending on seasonal factors, such as volume, taste and market conditions. Over the long-term they are targeting a per tray return of between \$8.00-\$9.00. With the anticipated doubling of volume this season, it will provide a good guide for whether or not this is achievable.

KEY COMMODITIES: OIL, FREIGHT AND FERTILISER

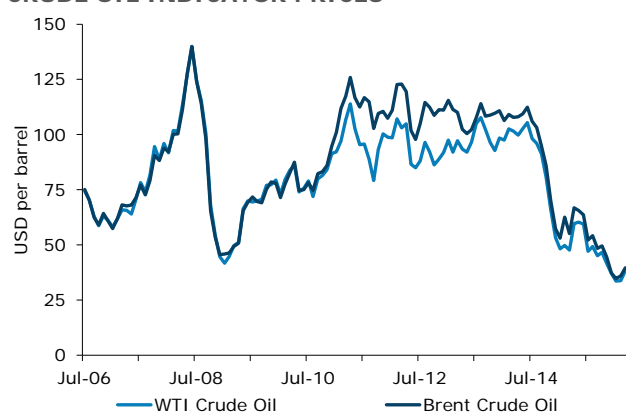
OTHER COST INDICATORS

	Current Month	3 Mth Trend	Last Year	Chg. M/3M	Chg. Y/Y
WTI Oil ¹	38	35	48	↑	↓
Brent Oil ¹	40	36	55	↑	↓
Ocean Freight ²	429	375	602	↑	↓

¹ USD per barrel, grade WTI

² Baltic Dry Index

CRUDE OIL INDICATOR PRICES

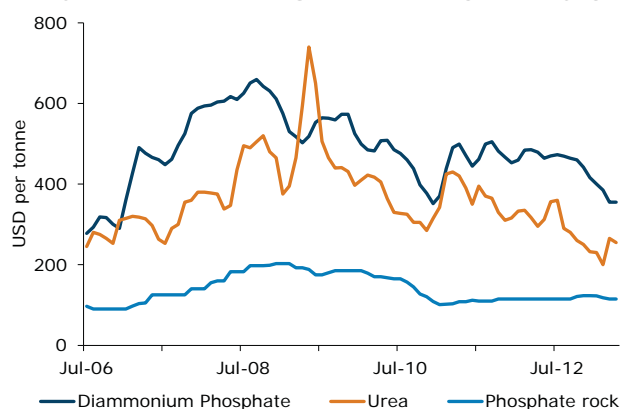


Source: ANZ, Bloomberg

FERTILISER PRICE INDICATORS

USD per tonne	Current Month	3 Mth Trend	Last Year	Chg. M/3M	Chg. Y/Y
DAP (USD)	355	380	479	↓	↓
Urea (USD)	255	232	295	↑	↓
Phosphate Rock (USD)	115	119	115	↓	↔
Farm-gate DAP (NZD)	840	837	815	↑	↑
Farm-gate Urea (NZD)	505	518	590	↓	↓
Farm-gate Super phosphate (NZD)	330	330	316	↔	↑

INDICATIVE INTERNATIONAL FERTILISER PRICES



Source: ANZ, Bloomberg

The cyclical low seems to be in for oil, with continued talk of OPEC production cuts amidst a decline in US output and inventories. But for prices to hold above US\$40/bbl, or push further, it would seem some of the talk from OPEC will need to be matched with action.

While Saudi Arabia, Qatar, Russia and Venezuela reached a tentative agreement in February to freeze production, this fell short of expectations of an actual production cut. More recently, Saudi Arabia has said it will only freeze production if it's joined by other suppliers including Iran. Of course Iran is only just increasing production following the lifting of economic sanctions and will not want to freeze production. **So it seems to us the likelihood of any agreement being reached on the 17th April to curb production is very low.** This leaves a lot of event risk for oil markets, which could recoil quickly.

What ultimately need to be watched is the fundamentals, and in this regard they are slowly improving. While the market is focused on a potential cap on current output, disruptions of current supply are increasing in regularity. The latest was the bombing of a Nigerian oil pipeline, which could cut output by over 250kb/d. At this stage, the outage could last a couple of months.

We still see a good chance of a significant production decline coming from the US. S&P has downgraded 149 energy companies in the first 80 days of 2016 against 30 downgrades in Q1 2015. We estimate that over 1.2Mb/d of supply is controlled by US companies with a below-investment grade rating and debt maturing over the next 12 months. Moreover, supply is already reacting to the low price environment. Since the start of the year, production has fallen by 150kb/d and is down over 500kb/d since its peak in June 2015.

Demand has been supportive, although questions remain as to its sustainability. According to EIA data, US gasoline demand averaged 9.33 Mb/d in March, while inventories fell to 250.5 million barrels. The bounce in prices over the past couple of months does provide the market with a degree of breathing space; however fundamentals will need to keep improving to drive prices higher.

Fertiliser markets have been a bit more mixed lately. Farm-gate urea prices have been reduced again, but international prices have recently increased, so the drop might prove short-lived. International Diammonium Phosphate prices have continued to trend down, suggesting some downward pressure might emerge for farm-gate prices.

KEY COMMODITIES: FORESTRY

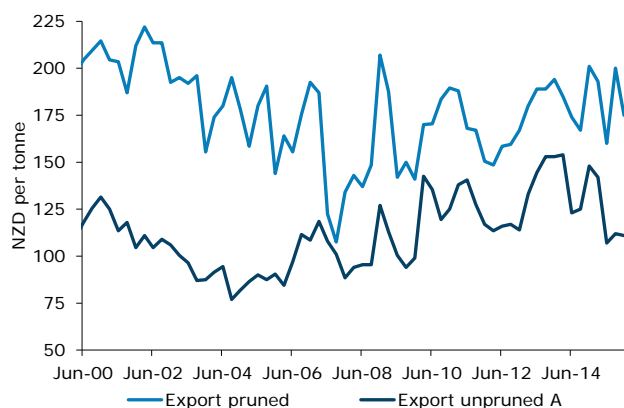
FORESTRY PRICE INDICATORS					
	Current Quarter	3 Period Trend	Last Year	Chg. P/3P	Chg. Y/Y
Export: (NZD per JAS m³ f.o.b.)					
Pruned	175	184	201	↓	↓
Unpruned A Grade	111	120	148	↓	↓
Unpruned K Grade	113	118	140	↓	↓
Pulp	92	99	124	↓	↓
Domestic: (NZD per tonne delivered at mill)					
P1	154	153	144	↑	↑
P2	138	125	126	↑	↑
S1	102	106	103	↓	↓
S2	97	98	104	↓	↓
Pulp	43	46	52	↓	↓

Wharfgate prices have softened slightly as a result of the weaker overseas market, but both the NZD and shipping rates remain supportive. Many are in a positive state of mind after CFR prices have remained more buoyant than initially anticipated, largely due to lower levels of inventories being held on Chinese ports than this time last year. Some of the bottom end has come out of shipping rates, largely due to lifting oil prices. However the mid-range for spot prices continues to be very low, and is on-par with what was seen the month prior.

Tight supply and solid demand meant further upside has been observed in the NZ domestic market. The consistent upward trend in housing consents in Auckland and now other regions has kept the upwards pressure on structural log prices in the North Island. However the situation is softer through the South Island, with Canterbury residential building activity past its peak.

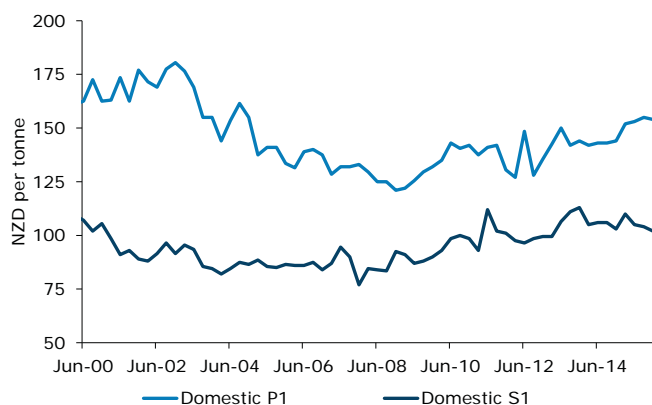
Forest harvest volumes declined in the fourth quarter of 2015. This put total harvest at 28,896,354m³ for the year, a 3% drop from 2014. The drop was the first time in six years of growth in harvest volumes. Sawn timber production and pulp production for Q4 increased on the previous year, inducing a slight rise in total production for 2015. Total sawn timber production was up 1% on 2014 to 4,007,860m³, while pulp production was also up 1%, totalling 1,437,938 air dry tonnes. It was the first time in four years that annual pulp production increased, despite it being 5% below the five-year-average

NZ FORESTRY INDICATOR PRICES – EXPORT



Source: ANZ, MPI

NZ FORESTRY INDICATOR PRICES – DOMESTIC



Source: ANZ, MPI

BORROWING STRATEGY

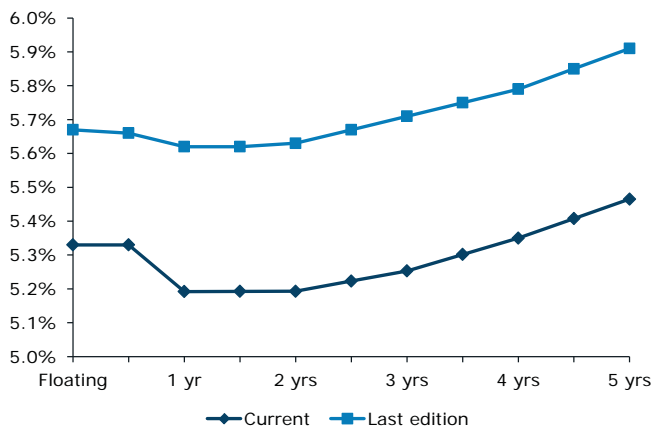
SUMMARY

Indicative rural lending rates continue to fall, driven by lower wholesale rates courtesy of a lower OCR, expectations of more OCR cut(s), and lower global yields. The lending curve has taken on a more pronounced “bowl” shape, reflecting market expectations of more cuts to come. For borrowers, this makes 1-3 year rates extremely attractive. However, as we noted in our last edition, we are also mindful that wider credit costs increase the incentive to fix for a longer period to lock in all-up borrowing costs.

OUR VIEW

Indicative rural rates are between 0.3%pt and 0.4%pt lower since we published the last *Agri Focus* in early February. A lower OCR – and expectations of a still-lower one – have pulled short-end rates down while longer-term yields have been dragged lower by global yields. The move has seen larger falls in 1-year

FIGURE 1. INDICATIVE RURAL LENDING RATES



Source: ANZ, Bloomberg

rates and longer, with floating rates and the 6-month rate down by less. This has occurred because the market is anticipating more OCR cuts in the future, but as they have not been delivered yet, we have seen 1-2 year rates fall by more than the 6-month rate. The yield curve has taken on a “bowl” shape.

The bowl-shaped curve makes 1-3 year rates look more attractive, at face value. They are lower than rates for shorter and longer terms, and they are also at post-GFC lows. All else equal, it is difficult to argue with the value on offer, particularly given our expectation that the Reserve Bank will cut the OCR two more times in 2016. Typically, this would leave us in favour of short (but not too short) terms like 1-2 years, on the view that you may as well take what are basically the cheapest rates on offer, and look to roll when your term expires at what are likely to be lower rates by that time (because the Reserve Bank has cut).

However, we are wary about the potential for the spreads/margins businesses face to widen, reflecting rising bank funding margins in global markets. Credit spreads (which banks pay to borrow) have come down since peaking in mid-February (figure 2), but they remain significantly wider than they were last year. The marginal cost of funds is higher than it was at the end of 2015, which is lifting banks’ average cost of funds. This means pressure to pass on the cost increase into the spreads/margins borrowers face. Borrowers looking for certainty may wish to consider locking in for longer – as doing so will lock in both the base rate and margin. This will come at a slightly higher cost, but given the relatively small difference in, say, the indicative 1-year rate (5.19%) and the indicative 5-year rate (5.47%), this is less of an objection than it has been in the past when the yield curve has been significantly steeper.

FIGURE 2: MARKIT-ITRAXX AUSTRALIA INVESTMENT GRADE CREDITS SPREAD INDEX



Source: ANZ, Bloomberg

What borrowers should do depends on individual circumstances.

While our breakeven analysis suggests that rates don’t need to rise by much for it to be worthwhile fixing, for most borrowers, it is likely to be a question of certainty (both rate and margin) against flexibility (and the possibility that floating rates may fall, and/or stay lower for longer).

Rural Lending Rates (incl. typical margin)	Current	Breakeven rates			
		in 6mths	in 1yr	in 2 yrs	in 3 yrs
Floating	5.33%				
6 months	5.33%	5.05%	5.19%	5.34%	5.59%
1 year	5.19%	5.12%	5.19%	5.37%	5.64%
2 years	5.19%	5.20%	5.28%	5.51%	5.78%
3 years	5.25%	5.30%	5.40%	5.65%	
4 years	5.35%	5.42%	5.53%		
5 years	5.47%				

ECONOMIC BACKDROP

SUMMARY

The economy has Jekyll and Hyde characteristics. That's common over a business cycle; there are always winners and losers at any given time. However, divergences are now particularly stark. Housing is booming, as are construction and tourism. Yet dairying is in the doldrums and will be for some time. The mix of growth (borrow and spend) is not sustainable and a lower OCR (courtesy of low inflation and global unease) will mean more housing largesse at a time households are already heavily leveraged. A lower exchange rate would not go amiss but good growth means a stronger-than-desired currency. Amidst huge uncertainties, businesses are getting on with it, and we're backing more of the same amongst global palpitations. We are forecasting 2½-3% growth over the next three years.

DR JEKYLL

The economy looks to be in reasonable shape. The economy ended 2015 showing strong momentum, with annualised growth of close to 3½% over the final six months (belying annual growth at just 2.3%). The labour market has recovered after a mid-year hiatus (although admittedly a 5.3% unemployment rate perhaps overstates strength) and consumer and business sentiment have held at decent levels despite dairy and global concerns. While there are the usual vagaries and volatility of the data to deal with, the general message is that the economy has carried this momentum into 2016 and is expanding solidly.

Importantly, this positive momentum story is not a one or two trick pony. There are a number of factors contributing (with many now quite familiar): tourism is strong; the construction pipeline is large; net immigration is at record levels; regional housing markets are surging; financial conditions (a key lead indicator) are still supportive; there is more cash in households' pockets; borrow-and-spend type behaviour has returned, providing a near-term boost; firms remain in a fairly buoyant mood and the economy has a lot of "small" things going for it.

These positive forces are expected to persist over the next year or so, and some for longer.

MR HYDE

Good economic momentum is masking mixed performance both across sectors and within them as firms deal with both structural shifts and cyclical business cycle challenges. Both are typical at any one time, but it's atypical to see the degree of structural shift that's occurring at present overlaid on normal business cycle trends. Examples of the former include trade patterns (more Asia focused), attitudes to saving (KiwiSaver is now engrained in the national psyche), diluted wage bargaining power amidst

the fourth industrial revolution, and demographics. However, there are also more direct challenges:

- **Success is no longer about managing macro shifts; disruptive technology and innovation mean ongoing change at a non-linear rate for all and sundry.**
- **The global scene is wobbly.** It's the biggest downside risk facing the economy and uncertainty and challenges are multi-faceted. Much of our focus is on China, which faces a real test rebalancing its economy, deleveraging, and balancing a social objective (more people in jobs) with an economic one (rebalancing the economy, which means near-term job displacement).
- **Dairy: there is no way to sugar-coat the challenges.**
- **Financial conditions have tightened.** Financial conditions are supportive overall, but have tightened materially of late via a higher NZD, higher funding costs and lower commodity prices.
- **Asset valuation largesse together with deterioration in some structural indicators is an 'amber alert' combination.** The excesses associated with New Zealand house prices are well documented. A shortage of housing is only partly to blame. Globalisation, the chase for yield, connectivity with China, urbanisation, New Zealand's economic success, surging migration, cheap credit, high construction costs, lack of land availability, a lack of intensification and ambitious expectations about peoples' first home (since when is four bedrooms and two bathrooms normal?) are also influential. Amidst all that credit growth is ramping up. That's fine in the short term but not over numerous years.

New Zealand has a number of key dynamics that will be influential over the coming years as challenges are navigated.

- **Policy firepower.** The OCR can go a lot lower.
- **The fiscal position is strong.**
- **A free-floating currency.** It will adjust lower just as it did in mid-2015 if the growth picture warrants it. That's looking odds-on.
- **Better microeconomic foundations, building macroeconomic resilience.** We have some concerns over leverage ratios, but there is no doubting the economy is better placed all round than in the not-too-distant past.
- **Low levels of corporate debt.** Household and agriculture debt levels are high but corporate debt is low.

EDUCATION CORNER: TPPA IMPLICATIONS FOR FOOD AND BEVERAGE SECTOR

SUMMARY

The Trans Pacific Partnership Agreement is a deal to liberalise trade and investment between 12 Pacific-rim countries. For food and beverage exporters it provides better market access to some of the world's wealthiest consumer markets – the US, Japan and Canada.

The modelled benefits of \$2.7 billion per annum for the New Zealand economy by 2030 are debatable. But history actually suggests such benefits are often understated. In addition we take the view it's better to be in the tent than outside. It is incongruous to imagine New Zealand – a trade dependent nation – not signing up, particularly with the deal being a 'living agreement' meaning others can sign up too and the clear evidence of substantive benefits from other deals New Zealand has been a party to (i.e. CER, NZ-China FTA etc). There is a raft of empirical evidence that suggests trade liberalisation benefits overall welfare and lifts nationwide income too, particularly so for a small and already open trade dependent economy like New Zealand.

For food and beverage companies, the deal gets rid of \$274 million in tariffs, removes other non-tariff barriers and harmonises the rules governing trade between TPPA members. But it also goes further by opening up new export opportunities in some of the wealthiest consumer markets, gains New Zealand parity with competitors who already have free-trade concessions, increases competitiveness of small to medium-sized food and beverage businesses through lowered compliance costs, and allows New Zealand regulators/businesses to be at the heart of shaping future trade policy. These benefits are difficult to measure, but tangible.

WHAT IS IT?

The Trans Pacific Partnership Agreement (TPPA) is a deal to liberalise trade and investment between 12 Pacific-rim countries: New Zealand, Australia, Brunei Darussalam, Canada, Chile, Japan, Malaysia, Mexico, Peru, Singapore, the United States and Vietnam. These countries account for over 800 million consumers, 36% of global gross domestic product and 40% of global trade.

From a New Zealand perspective the 12 countries are key trading partners. They already account for 40% of total goods exports, 47% of total service exports, 73% of New Zealand's direct overseas investment and 75% of foreign investment within New Zealand.

New Zealand already has free trade agreements with Australia, Singapore, Brunei Darussalam, Chile, Vietnam and Malaysia, so **this agreement is really about the addition of Peru, the United States, Mexico, Japan and Canada.** The latter

four countries are where the rubber hits the road for New Zealand businesses as they are home to some of the wealthiest consumers. Indeed these additional countries only represent 9% of the global population, but they capture nearly a third of global economic activity.

Of equal importance is the fact the TPPA is a 'living agreement', meaning other countries may join in the future. It is much broader than the usual run of a mill free trade agreement. It covers a number of emerging trade and new 'cross-cutting' issues. This includes the likes of the internet and digital economy, the participation of state-owned enterprises in international trade and investment, the ability of smaller sized businesses to take advantage of trade agreements and other topics you wouldn't typically see in your standard or historical free trade agreements.

Geopolitics and the future rules that govern globe trade is a consideration too. The TPPA is viewed as an important element in the US 'rebalancing' toward Asia and as a strategic move to counterweight the rise of China. Similarly, Japan's participation in TPPA negotiations is largely seen as an effort to contain China's influence in the region.

Moreover, as the TPPA has a special regulatory focus on topics not covered by the World Trade Organisation, it may – if successful – significantly contribute to shaping future trade deal templates. Thus, it is a clear opportunity for both the US and Japan to influence the future trading system in the Pacific and further abroad.

WHEN WILL IT COME INTO FORCE?

The Agreement is not expected to enter into force until at least early 2018. However, there are still some political hurdles to overcome in many of the participant countries. This is due to each of the twelve countries needing to change domestic laws to reflect what was agreed under the TPPA. This is no easy task given 'special interest' groups all pushing their own agendas and you can already see political fracturing in some key nations such as the USA.

There are various ways for the Agreement to enter into force.

1. The first option is if, within two years of the date of signature (4 February 2016 in Auckland), all countries that signed the TPPA have completed the necessary domestic law changes. It then enters into force 60 days after notification by all countries.
2. If all countries have not notified their readiness within two years, then the second option is if at least six of the countries accounting for 85% of the

EDUCATION CORNER: TPPA IMPLICATIONS FOR FOOD AND BEVERAGE SECTOR

combined GDP (as at 2013) have completed the necessary domestic law changes then it can enter into force 26 months after signature.

- The third option applies if the TPPA has not entered into force under either of the first two options. In these circumstances, it will enter into force 60 days after the date on which at least six of the original countries involved have completed the necessary domestic law changes. Again, the six countries need to account for at least 85% of the combined GDP (as of 2013) of those originally involved.

TPPA includes a mechanism that allows countries who did not notify their readiness under the above options to sign-up when they are ready to do so.

The US accounts for approximately 60% of GDP of the 12 countries that signed up and Japan 18%. So given

the 85% threshold, all eyes are on whether or not these two countries can pass the respective legislative changes through their governing bodies.

In the US, it needs to make it through the Republican controlled House of Representatives and Congress. Through a piece of legislation called the Trade Priorities and Accountability Act, the President can submit trade deals to Congress for an expedited vote without amendments. This piece of legislation was key to getting other countries on board given that divisions within the US would have undermined what was agreed.

WHAT'S IN THE AGREEMENT?

The short answer is a lot. The entire document is well over 1,000 pages and there are 30 chapters. These are listed below with a brief description on what each entails.

TABLE 1: CHAPTERS IN TPPA

Chapter	Title	Chapter Description
1.	Initial Provisions and General Definitions	Outlines definitions and countries involved.
2.	National Treatment and Market Access for Goods	Sets out the rules individual TPPA countries will apply for qualifying imports from other TPPA countries, including the elimination of tariffs. Each country has agreed to a schedule of tariff commitments specifying the preferential rate that applies to other TPPA countries. Most countries apply these same rules to all, but there are some variations.
3.	Rules of Origin and Origin Procedures	Establishes the rules for determining whether goods traded between TPPA countries are considered to "originate" in the TPPA region and therefore qualify for relevant tariff and trade preferences.
4.	Textile and Apparel Goods	The rules of origin for textiles within the TPPA are treated differently from New Zealand's other trade agreements. The majority of textile products need to be manufactured from materials produced within the TPPA in order to qualify for preferential TPPA tariff rates. To mitigate the impact of some of these restrictive rules, and to take into account production capability gaps within the TPPA region, there are some exceptions.
5.	Customs Administration and Trade Facilitation	Builds on the commitments in the recently agreed WTO Agreement on Trade Facilitation and extends beyond these obligations in some areas. These commitments are aimed at facilitating the flow of goods across borders, including ensuring customs procedures and practices are transparent and consistent, as well as expediting certain forms of trade.
6.	Trade Remedies	Sets out the conditions and procedures for when a country can provide temporary relief to a domestic industry from unfair competition, or an unexpected surge in imports. A TPPA country maintains its current rights and obligations under the relevant WTO agreements, but includes a range of practices that promote the goals of transparency and due process when imposing anti-dumping and countervailing duties. It also includes rules that allow countries to impose transitional safeguard measures (i.e. temporarily raise tariffs) if there is a surge in imports.
7.	Sanitary and Phytosanitary Measures (SPS)	Builds on the WTO SPS Agreement to encourage better and more consistent SPS regulatory practices. In developing SPS measures, TPPA countries are obligated to undertake transparent decisions and either conform to internationally agreed SPS standards or provide a documented scientific risk assessment where their requirements do not conform to the standards.
8.	Technical Barriers to Trade	Addresses the trade barriers and costs associated with standards, technical regulations and conformity assessment procedures. Builds on existing rights and obligations under the WTO that seek to eliminate unnecessary technical barriers to trade, enhance transparency and promote regulatory cooperation and business practice.
9.	Investment	Sets out the framework that governs the flow of investment between TPPA countries. Uses a 'negative list' framework where everything apart from the areas where restrictions are listed by individual countries has market access. Each country's 'negative list' has two parts: 1) sets out existing measures (laws, regulations, decisions, practices, procedures) that each country retain; 2) lists reservations for sectors and activities where TPPA country's maintain existing and/or can adopt new discriminatory measures.

EDUCATION CORNER: TPPA IMPLICATIONS FOR FOOD AND BEVERAGE SECTOR

Chapter	Title	Chapter Description
10.	Cross-Border Trade in Services	Sets out the framework for cross-border trade in services. It is set-up in a similar fashion to the investment chapter through the use of a 'negative list'.
11.	Financial Services	Establishes a framework of rules to govern the cross-border trade in financial services amongst TPPA countries. It's closely linked to the measures for investment and services given the relationship financial services plays in both. It is set-up in similar format with a negative list of 'non-conforming measures' (i.e. every country commits to established rules apart from those on the negative list).
12.	Temporary Entry for Business persons	Looks to enhance the rules for a business persons' entry into a country when engaged in the trade in goods, supply of services and the conduct of investment activities. This is particularly important for the supply of services as it often involves travel and staying for a period of time to conduct this type of business.
13.	Telecommunications	Sets out regulatory disciplines to underpin effective market access and competitive markets in telecommunications services in the TPPA area.
14.	Electronic Commerce	Establishes domestic legal frameworks for the governing of electronic transactions to ensure they are consistent with internationally developed frameworks and support consumer confidence in e-commerce. Includes a number of provisions covering electronic authentication and signatures, online consumer protection, the protection of personal information of the users of e-commerce, unauthorised commercial electronic messages, minimising unnecessary barriers to e-commerce and recognises the value of cooperation on cybersecurity matters.
15.	Government Procurement	Sets out the rules by which companies can compete for government contracts. The aim is to provide open, transparent and competitive procurement whereby companies from other TPPA countries are afforded treatment equal to domestic suppliers in bidding for government procurement contracts covered by the agreement. Each TPPA country has negotiated a 'schedule of commitments' that sets out government entities, procurement activities, and minimum value thresholds that together determine what contracts are subject to the commitments.
16.	Competition Policy	Sets out the requirement for TPPA countries to have competition laws that prohibit anti-competitive conduct.
17.	State-Owned Enterprises and Designated Monopolies	Recognises each country's right to establish and maintain state-owned enterprises and monopolies, while aiming to establish a level playing field between state-owned or controlled companies and their competitors. There are exceptions and the provisions only apply to companies more than 50% owned or controlled by the Government with a commercial focus – not those who operate for not-for-profit or cost-recovery.
18.	Intellectual Property	Covers a number of obligations related to copyright, patents, data protection for pharmaceutical products, plant variety rights, trade marks, geographical indications, industrial designs, domain names, enforcement of intellectual property rights and internet service provider liability. The obligations are considered more onerous than other FTA's and multilateral treaties providing some costs, especially around copyright protections.
19.	Labour	Recognises that labour standards should not be used for protectionist trade purposes and that it is inappropriate to encourage trade or investment by weakening or reducing labour laws. Adopts and maintains internationally-recognised labour rights and laws, as well as additional laws governing 'acceptable conditions of work' with respect to minimum wages, hours of work and occupational safety and health.
20.	Environment	Contains obligations and undertakings to promote supportive trade and environment policies. Enhanced cooperation is focused on several areas: multilateral environmental agreements; conservation and sustainable use of biodiversity; reducing carbon emissions; the conservation and sustainable management of marine fisheries; promoting conservation and combating the illegal take of, and illegal trade in, wild flora and fauna; liberalising trade in environmental goods and services; and encouraging the use of voluntary mechanisms (such as auditing, reporting and labelling) to protect natural resources and the environment.
21.	Cooperation and Capacity Building	Purpose of this section is to help implement and enhance the benefits of the TPPA amongst member countries. It does this by establishing new cooperation and capacity building mechanisms (such as dialogues, workshops, conferences, collaborative programmes, technical assistance activities) and leveraging existing mechanisms (such as bilateral partnerships) to help all countries realise economic growth and development through the TPPA.

EDUCATION CORNER: TPPA IMPLICATIONS FOR FOOD AND BEVERAGE SECTOR

Chapter	Title	Chapter Description
22.	Competitiveness and Business Facilitation	This is a cross-cutting section that seeks to support increased economic integration, job creation and competitiveness of TPPA countries. It's novel to the TPPA compared with other globally negotiated trade agreements. It provides a framework for the development and strengthening of supply chains in the free trade area and is a response to the increased importance that supply chains and regional production networks play in international trade and investment.
23.	Development	Essentially reaffirms countries commitment to "promote and strengthen an open trade and investment environment" in a manner that helps to address – to the extent possible – TPPA country's national development objectives (i.e. improve welfare, reduce poverty, raise living standards and create employment opportunities).
24.	Small and Medium Sized Enterprises	This section is about promoting information sharing and other support activities to ensure small-medium enterprises can take advantage of the TPPA.
25.	Regulatory Coherence	This section creates the obligation on all countries to establish quality regulatory management systems to ensure trade and investment liberalisation is taken into account when considering new regulations.
26.	Transparency and Anti-corruption	Has specific transparency-related provisions on pharmaceutical and medical device reimbursement.
27, 28, 29 & 30.	Legal and Institutional Issues; Dispute Settlement; Exceptions and Final Provisions.	Free trade agreements include legal and institutional provisions that cover such things as how and when the agreement will enter into force, how it will relate to other international agreements already in place, how countries should resolve issues in the case of a dispute, and what exceptions are allowed. Under the TPPA, these are covered by the Initial Provisions, Administrative & Institutional, Dispute Settlement, Transparency and Anti-corruption, Exceptions, and Final Provisions sections.

For the food and beverage sector there are many areas that are applicable, but the ones that are of most interest include:

- The treatment and market access for goods.** This is all about tariff reductions, phase-in times for this and allocated quotas for more sensitive products (i.e. dairy).
- Rules of origin and origin procedures.** This is about the definition of qualifying products. This is important in today's world of global supply chains where various components of a product can be manufactured in different countries.
- Textile and apparel goods.** These rules and definitions are specific to businesses and raw materials involved in producing textile and apparel goods. These have particular relevance to wool, hides and pelts.
- Customs administration and trade facilitation.** These are particularly relevant for small-medium enterprises where customs procedures increase the compliance burden and costs. It is also relevant for highly perishable food products and maximising the end shelf-life of a product (i.e. reducing time for customs clearance etc).
- Trade remedies.** These define the rules and risks associated with trade barriers being reinstated in the future.
- Sanitary and phytosanitary measures.** These are important both from a non-tariff barrier perspective when exporting, but equally for local biosecurity protections. From a trade perspective, these can be some of the most restrictive non-tariff barriers for certain products and markets.
- Technical barriers to trade.** These look to reduce other non-tariff barriers that can restrict trade.
- Investment.** Foreign investment already exists in many food and beverage sectors and different parts of the supply chain (i.e. farms, processing, distribution etc). Attracting further investment, expertise, access to supply chain partners and other intellectual property remains critical to the long-term success of New Zealand's food and beverage sectors.
- Intellectual property.** New Zealand has a lot of intellectual property in the food and beverage sector that requires correct protection. Equally, the food and beverage sector requires access to intellectual property to drive innovation and business efficiency.
- Environment.** New environmental regulations are beginning to have a big impact for on-farm investment and day-to-day management, so any new international initiatives will have an impact.

EDUCATION CORNER: TPPA IMPLICATIONS FOR FOOD AND BEVERAGE SECTOR

WHAT ARE THE BENEFITS AND COSTS TO NEW ZEALAND?

There have been a range of estimates on the benefits and costs of New Zealand joining the TPPA. Given the complexity of the agreement and its interaction with changeable economic variables and real-world markets there are always going to be a range of views expressed.

The Government's view is that once fully in effect the TPPA will result in New Zealand's real GDP increasing by at least 0.9% or \$2.7 billion annually, by 2030.

The economic modelling commissioned by the Ministry of Foreign Affairs and Trade estimated four ways the TPPA impacted on New Zealand's economy, once all trade liberalising measures were assessed to have come into place by 2030.

1. **The reductions in tariffs and quota barriers on goods trade was assessed to boost New Zealand GDP by \$624 million after fifteen years.** This figure represents the economic benefit that would accrue to New Zealand from improved market access into TPPA markets due to lower tariffs. The model captures gains from allocative efficiency as relative prices adjustment encouraging a shift in New Zealand production into areas where we have better competitive advantages. It also accounts for increased value from lower tariffs on imports into New Zealand, although this effect is likely to be relatively low given New Zealand's already low tariff structure.
2. **Reductions in non-tariff measures (NTM's) on goods trade cumulating in an additional \$2.91 billion to GDP after fifteen years.** While the removal or lessening of NTMs can represent one of the most significant outcomes from trade agreements, and the impact of NTMs on global trade is well-documented, available data and approaches to modelling NTMs are not as developed as for, say, the liberalisation of tariff barriers. For this reason the Government decided to halve the estimated economic gains from addressing NTMs on goods (i.e. NZ\$1.46 billion).
3. **Improved trade facilitation measures, are estimated to add NZ\$374 million to New Zealand's GDP after fifteen years.** These gains were estimated to come from faster times for goods to clear borders.
4. **Reductions in barriers on services trade, estimated to contribute an additional \$250 million to New Zealand GDP by 2030.** TPPA would liberalise trade flows across a range of areas that are expected to benefit New Zealand in these areas such as: cross-border trade in services, financial services, temporary entry, and telecommunications.

There are a number of counter views for each depending on the assumptions one wants to apply.

In the case of the gains from tariffs savings, opponents believe these are overstated as the direct tariff cost is estimated at \$274 million per annum. This saving is shared amongst exporters and other actors in the supply chain. However, the modelling takes into account other things like a lift in demand from end-consumers due to lower prices and more choice etc. Nonetheless, opponents believe a larger proportion of the benefit is likely to accrue to consumers and other powerful actors in the supply chain (i.e. foodservice and retail companies), as opposed to New Zealand exporters.

As stated, the claimed benefit from the reduction in NTM's is highly uncertain and difficult to model. As it accounts for 70% of the benefit, it is a significant determinate of the outlined economic gain. Even with the original estimate from the reduction in NTM's being halved, opponents suggest it is still too high and uncertain to include.

Other areas of contention include: the modelled benefits not being completely aligned with the end outcomes of the negotiations (i.e. timeframe and finally agreed tariff reductions etc); and a blanket assumption with little justification that customs clearing times will be reduced by 25% improving trade facilitation.

The other area that appears to be missing is the anticipated costs generated from the TPPA. The government has estimated a range of costs associated with: loss of tariff revenue, increase in the copyright term, additional costs for PHARMAC, implementation costs and other one-offs. In the National Interest Analysis these assumed costs are estimated to be \$79 million per annum, but don't seem to have been incorporated into the likes of the headline result.

So in summation, there does seem some 'oddities' and areas of contention in the Government's view of the assumed benefits for New Zealand from the TPPA.

We take a common sense approach and view it as better to be in the tent, as opposed to outside it. It is simply incongruous to imagine New Zealand not being a part of the most significant trade deal in decades. Food and beverage exporters will be the biggest winners. For the rest, the result is a little more uncertain. There is a raft of empirical evidence that suggests trade liberalisation benefits overall welfare and lifts nationwide income, particularly for a small and already open trade dependent economy like New Zealand. The truth is only time will tell of the true scale of benefits and costs from being involved. Going by past experiences of other free trade agreements, these have tended to over deliver, so fingers crossed this will be the same for the TPPA.

EDUCATION CORNER: TPPA IMPLICATIONS FOR FOOD AND BEVERAGE SECTOR

Looking at other trade deals New Zealand has been a party to:

- New Zealand/Australia Closer Economic Relations – negotiated in 1983: All tariffs were eliminated by 1990 (ahead of schedule). **Two-way trade has increased steadily to \$24 billion, or 18% of total.** Imports make-up \$11.2 billion, or 17% of total. Exports make-up \$12.9 billion, or 18.5% of total. **Australia is our biggest services trading partner, with most services traded free of restriction.** As a percentage of total services exports and imports, Australia makes up 22% (\$4.5 billion) and just under 32% (\$5.3 billion) respectively. **It's also now easier to invest in each country under the March 2013 Investment Protocol.** This is an example of how agreements continue to develop. Foreign direct investment between New Zealand and Australia is now \$67 billion. New Zealand has direct investment of \$13 billion in Australia and Australia is the largest source of foreign direct investment in New Zealand, at \$53 billion.
- The New Zealand-China free trade agreement that came into effect in 2008. **Two-way trade has more than doubled in less than eight years.** The growth now means Australia and China compete closely with one another as our top trading partner. **Importantly for New Zealand the larger proportion of growth has come from exports.** Total exports have more than tripled, or grown at 18% per annum since the FTA came into force. Just about all major sectors have experienced growth in sales to China during this period. The biggest beneficiaries in growth terms have been dairy, tourism, forestry, meat and seafood. Imports have also grown, but at a slower rate of 7% per annum.
- There are other examples too. **Many of New Zealand's other free-trade agreements have started out as bilateral agreements that have then turned into larger multilateral agreements.** The likes of the AANZFTA is an example, where all ASEAN countries came together amalgamating previous smaller agreements. This is helping drive synergies across a number of areas of trade.

We also need to keep in mind that such deals only open the door; businesses still need to go through it.

WHAT ARE THE BENEFITS FOR THE FOOD AND BEVERAGE SECTOR?

An estimated \$334 million is paid annually in duties on New Zealand exports to the five TPPA countries with which we do not have existing FTAs (the US, Japan, Canada, Mexico and Peru). While the TPPA has not delivered the full elimination of tariffs, when fully implemented, 95.4% of New

Zealand exports will be tariff free, saving \$272 million in tariffs from these five markets. In addition, there will be tariffs savings of \$2.4 million from further reductions in Vietnam and Malaysia with whom we already have an FTA. In total this delivers \$274 million in tariff savings. Of course not all of this will make its way back to New Zealand exporters.

TABLE 2. TARIFF SAVINGS BY COUNTRY

Country	NZ Exports		Estimated tariff savings at entry into force		Estimated tariff savings once fully implemented ^B	
	NZ\$m	NZ\$m	% of exports ^A	NZ\$m	% of exports ^A	
Parties where New Zealand has no existing FTA						
Japan	3,430	83	75.24%	207	90.63%	
US	4,417	45	97.19%	52	99.61%	
Mexico	418	3.1	73.70%	6.6	81.42%	
Canada	645	4.8	99.16%	5.2	99.89%	
Peru	135	0.9	99.65%	0.9	100.00%	
Parties with existing FTAs with New Zealand^C						
Malaysia	1035	0.1		1.6		
Vietnam	468	0.6		0.8		
Overall	10,550	137		274		

^A Percentage of exports that would benefit from tariff elimination. Where New Zealand exports are not subject to elimination, most would benefit from new quota access.

^B Almost all (99.5%) tariff savings would be realised within sixteen years. The remaining tariff savings would be realised over 20 or 30 years.

^C Tariffs that would be eliminated under TPP that were excluded from the ASEAN-Australia-New Zealand and Malaysia-New Zealand FTAs (eg. wine, liquid milk etc).

Source: ANZ, MFAT

The table below provides a split of this \$274 million benefit by major sector.

TABLE 3: TARIFF SAVINGS BY SECTOR

Sector	NZ exports ^A	Estimated duties paid	Estimated tariff savings once fully implemented
Dairy	2,141	132	96
Fisheries	347	9	9
Forestry	773	11	11
Horticulture	694	34	34
Industrials	2,274	9.6	9.6
Meat	1,923	101	84
Other Agric.	352	19	12
Textiles	96	3.4	3.3
Wine	461	16	16
Overall	9,060	335	274

^A "New Zealand exports" column does not include trade with Malaysia and Vietnam that benefits from, or would benefit from, duty free access under New Zealand's existing FTAs.

Source: ANZ, MFAT

EDUCATION CORNER: TPPA IMPLICATIONS FOR FOOD AND BEVERAGE SECTOR

Key benefits from tariff liberalisation include:

1. **At entry:** estimated tariff savings of \$137 million and 87.9% of exports being duty free. Tariff elimination on specific products into the main markets are: the US (bottled still wine, sheepmeat, prepared meats, protein isolates); Japan (kiwifruit, squash); Canada (wine); Mexico (mussels, kiwifruit, milk albumin) and Peru (buttermilk powder).
2. **By the 5th year after entry:** estimated tariff savings of \$197 million and 90.1% of exports being duty free. Tariff elimination on specific products into the main markets are: the US (beef, fish sticks, asparagus); Canada (beef); Japan (hoki and other frozen fish, carrot juice, sausages and mandarins); and Mexico (wine).
3. **By the 10th year after entry:** estimated tariff savings of \$236 million and 92.1% of exports being duty free. Tariff elimination on specific products into the main markets are: the US (infant formula, ice-cream, tableware and sugar); Mexico (apples, sheepmeat and beef); Japan (tongues, hides, Bluefin tuna and apples) and Vietnam (wine).
4. **By the 15th year after entry:** estimated tariff savings of \$273 million and 94.8% of exports being duty free. Tariff elimination on specific products into the main markets are: Japan (cheese, sawn wood and offals); and Malaysia (liquid milk and wine).
5. **When fully phased in:** tariffs on one of New Zealand's highest traded cheese tariff lines in the US would be eliminated over twenty years (with a transitional safeguard lasting a further five years). Tariffs are also eliminated on milk powder exports to the US, with skim milk powder eliminated over twenty years, and whole milk powder eliminated over 30 years with a transitional safeguard lasting a further five years.

Some of the key sector highlights include:

1. **Better market access to some of the biggest and wealthiest consumer markets** in the form of the United States, Japan and Canada.
2. **Some improvement on dairy market access, which is better than none.** It has to be remembered Canada and Japan have the two most regulated dairy sectors in the world. It was never going to be easy. While cheese isn't a big focus for the New Zealand dairy sector, the foodservice channel could provide some new opportunities in the likes of the US.
3. **Much better market access for beef into the US and Japan.** These are two of New Zealand's larger markets and we filled our quota into the US

last year. The slight offset to this is that Australia gets a similar deal.

4. **Better market access for kiwifruit into Japan where the industry paid \$15 million in tariffs last year. Volumes are expected to increase as gold volumes expand over the next five years.**
5. **Many smaller sectors could also be significant benefactors.** The likes of better market access into Japan for fresh fruit and vegetables, which is already one of the sectors largest markets, will bring new opportunities for many small producers.
6. **While China takes the majority of New Zealand's forestry exports, Japan and the US are important markets too.** There looks to be significant benefits into Japan for all forestry products.

None of the above analysis takes into account dynamic changes in markets and sectors over this time. There is also a proportion of trade where tariffs are reduced but not completely eliminated. There are a number of other technical details related to different tariff rates, phase-in times, quotas for dairy products, safeguard triggers etc that could be covered off for each of the sectors. However, MFAT has done a good job of providing a high level analysis of these for each sector (<https://www.tpp.mfat.govt.nz/resources>). So we will leave it to readers to dig into the detail for the sectors they are interested in.

The TPPA also includes a number of other outcomes that improve access for New Zealand exporters to the region, as well as creating a framework to further reduce barriers to trade in the future.

Some of the key ones include:

1. **Elimination of the use of agricultural export subsidies within the TPPA region.** Taken together with the decision on agricultural export subsidies at the Tenth WTO Ministerial Conference (MC10) in Nairobi in December 2015, this is a significant development in terms of New Zealand's long-standing aim to eliminate agricultural export subsidies globally.
2. **The most detailed rules of any New Zealand FTA on quota administration.** This should result in transparent timely and predictable administration conditions, while imposing minimal additional administrative burdens on exporters.
3. **Rules of origin for accessing preferential tariffs under TPPA.** The ease of this process is key for making documentation and other customs processes simple and cost effective. It could also have implications for labelling requirements and their standardisation. The pros are transparency

EDUCATION CORNER: TPPA IMPLICATIONS FOR FOOD AND BEVERAGE SECTOR

of labelling and documentation. The con is it could limit disclosure and the marketing/labelling of different products attributes (i.e. organic, grass-fed etc). The rules of origin also include special definitions for textile and apparel goods given different components are manufactured in different countries.

4. **Customs commitments** to improve efficiency at the border and expedite the release of goods. This includes advance valuation rulings for imports which provide certainty and predictability for New Zealand exporters.
5. **Mechanisms to minimise negative trade effects of sanitary and phytosanitary measures and technical barriers to trade.** This includes the likes of an independent disputes mechanism that allows exporters to appeal regulations in importing countries they believe are unjustified or unfair. This and other mechanisms will over time reduce the non-tariff measures faced by New Zealand exporters.
6. **A Wine and Distilled Spirits Annex to simplify the sale and export of New Zealand wines** in TPPA markets and reduce compliance costs for New Zealand wine producers.
7. **Foreign investment.** No changes are required to the way New Zealand currently approves foreign investment in sensitive land (including farm land over five hectares) or fishing quotas. TPPA rules do not provide the ability for a government to ban TPPA nationals from buying property in New Zealand. However, New Zealand can impose some types of new, discriminatory taxes on property if desired.
8. **Intellectual property provisions.** There are requirements for due process regarding the protection of geographical indications (a sign or name used in relation to goods that have a specific geographical origin and qualities essentially attributable to its origin). Exporters would be able to seek to ensure that they can continue to use common names for goods by objecting to proposals in export markets to protect them as geographical indications. Consistent enforcement procedures for intellectual property would also benefit exporters that rely on protecting intellectual property overseas. Provisions on traditional knowledge provide a framework within which TPPA countries can cooperate to improve understanding of issues related to traditional knowledge and genetic resources, including mātauranga Māori and taonga species.

9. **Labour and environment outcomes are the most comprehensive to be included in any of New Zealand's FTAs.** Key outcomes for New Zealand include commitments by countries to adopt and enforce strong domestic labour and environmental laws, and obligations to address forced and child labour, the illegal take of, and trade in, wild flora and fauna, subsidies for overfished fish stocks, and illegal fishing.
10. **There are a number of provisions to help facilitate economic efficiency, consumer welfare, and the ease of doing business,** for example there are chapters covering Competition, Competitiveness and Business Facilitation, Small and Medium Enterprises, and Regulatory Coherence.

Overall the TPPA will not only eliminate tariffs, but harmonise the rules governing trade between its members. Greater coherence in the rules that govern regional supply chains will streamline international trade, with benefits for businesses and consumers. Over time regulatory harmonisation will remove unnecessary duplication and reduce costs. This will be particularly beneficial for small to medium-sized food and beverage businesses, which can least afford increased compliance costs.

If New Zealand decided to remain outside the TPPA it would lose the opportunity to benefit from enhanced access to markets that account for 44% of our total goods and services trade. New Zealand exporters would also be placed at a disadvantage to their competitors in the TPPA, as these competitors would face lower barriers to trade relative to New Zealand exporters.

OVERVIEW OF NEW FREE TRADE PARTNERS

To get a feel for the new opportunities in the US, Mexico, Japan and Canada we have put together some country profiles. This includes a macroeconomic view, New Zealand's current trade and investment position, and an overview of the food and beverage sector.

EDUCATION CORNER: TPPA IMPLICATIONS FOR FOOD AND BEVERAGE SECTOR

USA

The United States of America (US) boasts the world's largest economy at US\$17.3 trillion in 2014. It accounts for nearly 23% of the world economic activity and 60% of TPPA countries. The population of the US is 319 million, representing 40% of total consumers within the TPPA countries.

USA ranks 16th out of 168 countries measured in perceived corruption (a rank of 1 is perceived as least corrupt) and is ranked fifth amongst TPPA countries.¹ Business conditions are favourable; ease of doing business is ranked third behind Singapore and New Zealand, while logistics performance is second best among TPPA countries.

New Zealand's current trade and investment position

The US is New Zealand's third largest trading partner behind Australia and China. Two-way trade has

increased by 7.1% per annum in recent years.

Surprisingly the US imports more dairy products than any other TPPA country, with the majority being casein (\$454 million), whey (\$394 million) and cheese (\$84 million) destined for foodservice. Frozen beef is New Zealand's largest merchandise export to the US, almost doubling in just four years to reach \$1.6 billion. Meat exports have grown 14% per annum in recent years (beef 19% per annum). The US is also New Zealand's largest wine export destination having almost doubled in recent years. Services have grown rapidly for information technology, business and personal travel services in recent years too.

Amongst TPPA countries, the US is second on the list for international investment in New Zealand, behind Australia. The US accounts for 22% of New Zealand's overseas investment. The US investment in New Zealand has dropped 19% since 2011 to \$38 billion.

Commodity/service	Exports (NZD million)				Imports (NZD million)			
	Dec-11	Dec-15	Change from 2011 - 2015(%)	Rank TPPA countries 2015	Dec-11	Dec-15	Change from 2011 - 2015(%)	Rank TPPA countries 2015
Dairy	855	1112	30	1	33	46	39	2
Wine	234	432	85	1	0	2	n/a	3
Meat	1187	1975	66	1	31	28	-10	3
Forestry	185	224	21	3	61	75	23	2
Fruit and vegetables	108	159	47	3	105	157	50	1
Manufactured goods	1,077	1379	28	2	4,290	5,177	21	1
Total merchandise	3,997	5,758	44	2	4,772	5,892	23	2
Transport. services	370	513	39	2	75	121	61	3
Other business services	307	333	8	2	489	671	37	2
IT services	150	297	98	1	146	233	60	2
Education	60	55	-8	2	13	17	31	2
Tourism – Business	52	116	123	2	59	84	42	2
Tourism – Personal	430	949	121	2	248	449	81	2
Total services	2,143	2,625	22	2	1,583	2,168	37	2
Total trade	6,140	8,383	37	2	6,355	8,060	27	2
	International investment in New Zealand				New Zealand investment abroad			
Total investment	47,088	38,123	-19	2	30,406	45,349	49	2

Source: ANZ, Statistics NZ

Food and beverage overview – quick facts

- US consumers spent US\$651 billion on food in 2014. Food expenditure is increasing at 5% per annum.
- Almost a fifth of the money Americans spend on goods and services is on food.
- Almost 60% of food is sold in supermarkets. The last 20 years has seen less traditional food retail outlets like warehouse clubs expand into the food market, suggesting consumers prefer to pair food

shopping with that of other goods. This group increased their share to 24% of the food retail market.

The US has the largest economy, population, and consumes the most food and beverage² product per person in the TPPA.³ The average American consumes

¹ Corruption Perception Index and Logistics Performance Index data for Brunei Darussalam is not available.

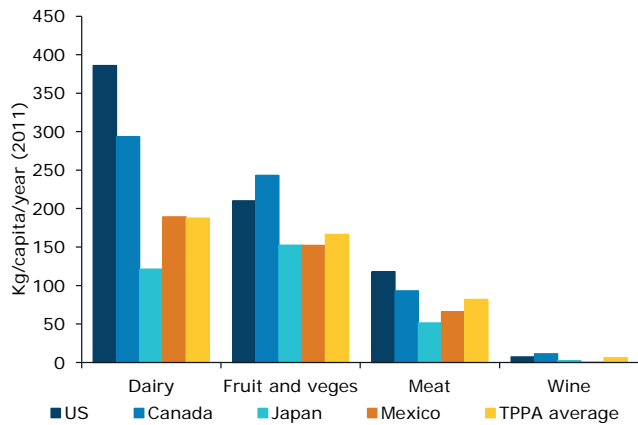
² Dairy, fruit and vegetables, meat and wine

³ Singapore was not included due to data availability

EDUCATION CORNER: TPPA IMPLICATIONS FOR FOOD AND BEVERAGE SECTOR

a total 721kg of food and beverage per year. Dairy consumption (386kg) is mainly milk and cheese products. Meat consumption is third among TPPA countries, behind Australia and New Zealand. Beef and poultry meat are the main components of meat consumption.

FOOD AND BEVERAGE CONSUMPTION



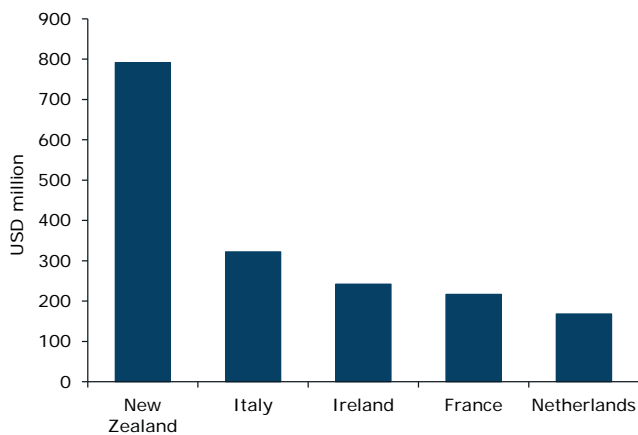
Source: ANZ, Food & Agriculture Organization of the United Nations

New Zealand food and beverage products are highly sought after by American importers. New Zealand dairy imports top the list and are more than twice that of Italy (mainly casein and whey). Over half of dairy imported from Ireland was casein, while cheese (US\$172 million) was the main product from France.

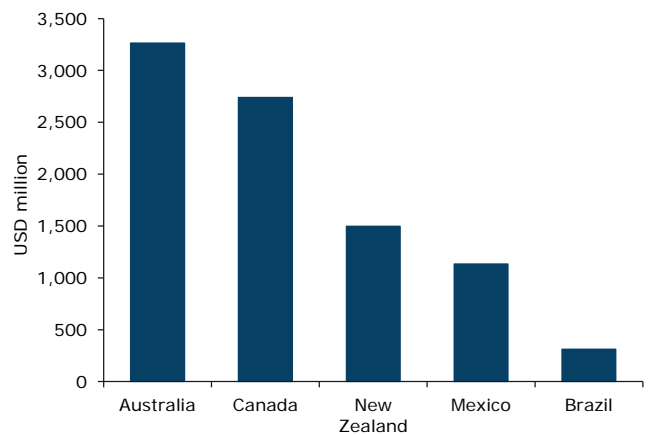
New Zealand meat products and wine are in the top four for American import volumes. Australia is our main competitor for sheep meat and beef. The US also imports a lot of beef from Canada and Mexico.

Fruit and vegetable exports are low due to distance to market, but also due to fierce competition from local supply. Given its close proximity, tomatoes (US\$1.8 billion) and avocados (US\$804 million) imported from Mexico are the largest markets in this group.

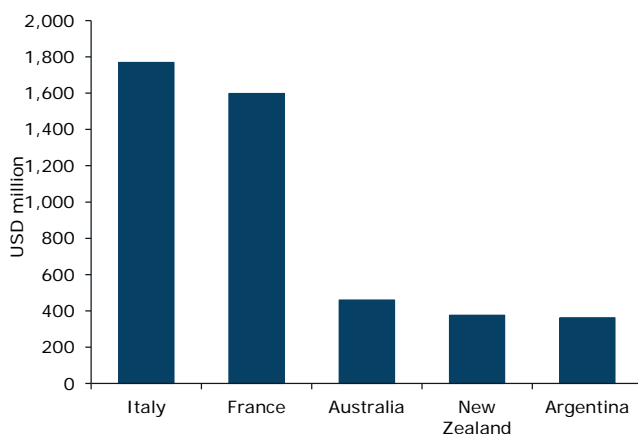
US DAIRY IMPORTS



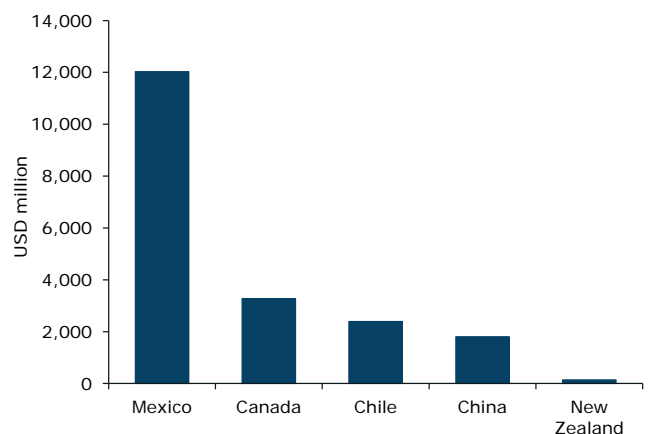
US MEAT IMPORTS



US WINE IMPORTS



US FRUIT AND VEGETABLE IMPORTS



Source: ANZ, Comtrade

EDUCATION CORNER: TPPA IMPLICATIONS FOR FOOD AND BEVERAGE SECTOR

CANADA

Canada's economy reached US\$1.8 trillion in 2014, representing 2.3% of world gross domestic product (GDP) and 6.4% of TPPA countries. 35 million Canadians make up 4.4% of consumers among TPPA countries.

Canada is perceived to be among the world's 10 least corrupt countries and third out of TPPA nations.¹ New Zealand tops this list. Canada also ranks well for ease of doing business (fifth in TPPA) and supply chain efficiency (fourth in the TPPA). This provides good access for perishable products despite the distance to market. Vancouver is Canada's third largest city by population and hosts the country's largest port, Port Metro Vancouver. The distance to the other main markets of Toronto and Montreal and associated freight costs is on the high side though.

New Zealand's current trade and investment position

Canada was a more prominent trading partner for New Zealand in 2015 than recent years. It is now New Zealand's 15th largest trading partner (two-way trade) and has been growing at 3.8% per annum in recent years. New Zealand goods and services exports to Canada grew 21% over the last four years, due mainly to wine (up \$36 million) and personal travel services, up \$60 million (45%) to be our second most exported product/service behind meat.

Canada invests \$5.3 billion in New Zealand, most of which is direct investment (\$4 billion). New Zealand's investment in Canada is \$2.7 billion, 1.3% of New Zealand's total foreign investment and 2.4% among TPPA countries.

Commodity/service	Exports (NZD million)				Imports (NZD million)			
	Dec-11	Dec-15	Change from 2011 - 2015(%)	Rank TPPA countries 2015	Dec-11	Dec-15	Change from 2011 - 2015(%)	Rank TPPA countries 2015
Dairy	54	53	-2	9	0	0	0	6
Wine	64	100	56	3	0	0	0	4
Meat	251	263	5	2	33	33	0	2
Forestry	2	3	50	8	33	57	73	3
Fruit and vegetables	10	25	150	7	8	16	100	5
Manufactured goods	172	164	-5	5	461	462	0	8
Total merchandise	597	670	12	6	588	631	7	6
Transport. services	62	84	35	4	26	28	8	6
Other business services	11	13	18	5	25	26	4	5
IT services	11	8	-27	5	4	10	150	4
Education	9	7	-22	6	1	1	0	5
Tourism – Business	5	20	300	5	7	8	14	5
Tourism – Personal	153	222	45	3	32	50	56	4
Total services	267	371	39	5	106	134	26	6
Total trade	864	1041	20	6	694	765	10	6
	International investment in New Zealand				New Zealand investment abroad			
Total investment	20,47	5,270	157	5	1,282	2,701	111	4

Source: ANZ, Statistics NZ

Food and beverage overview – quick facts

- Canada's 35 million consumers spent almost US\$1 trillion on consumer products and services in 2014.
- Of this, 9.3% was spent on food and beverages products (excluding alcohol).
- Canadians spend US\$2,506 per person on food and beverage products each year. This is similar to Japanese and American consumers and fourth among the TPPA countries.

Canadians consume 641 kilograms of food and beverage products² each year, 45% more than the

average consumer within the TPPA area.³ This makes it third behind the US (721kg) and Australia (697kg). Canadians consume the most fruit and vegetables per person (46% more than the average) while dairy consumption ranks third (mainly fresh milk) and meat is fourth (poultry, beef and pigmeat) among TPPA members.

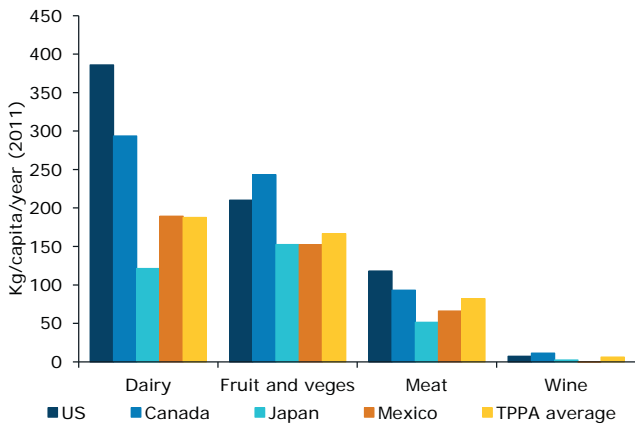
¹ Corruption Perception Index and Logistics Performance Index data for Brunei Darussalam is not available.

² Dairy, fruit and vegetables, meat and wine

³ Singapore was not included due to data availability

EDUCATION CORNER: TPPA IMPLICATIONS FOR FOOD AND BEVERAGE SECTOR

FOOD AND BEVERAGE CONSUMPTION



Source: ANZ, Food & Agriculture Organization of the United Nations

Most of Canada's food is distributed through super or hyper markets:

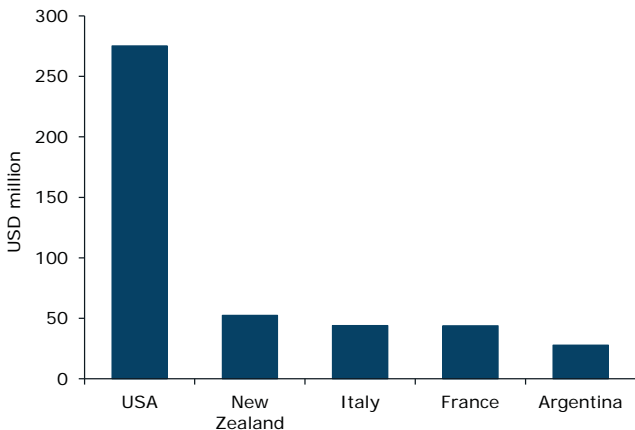
- Supermarkets/hypermarkets – 70%
- Non-traditional channels (general stores, mass merchandise chains) – 24%
- Convenience stores – 6.2%
- Other – 0.1%

Food prices are similar to that of other western nations:

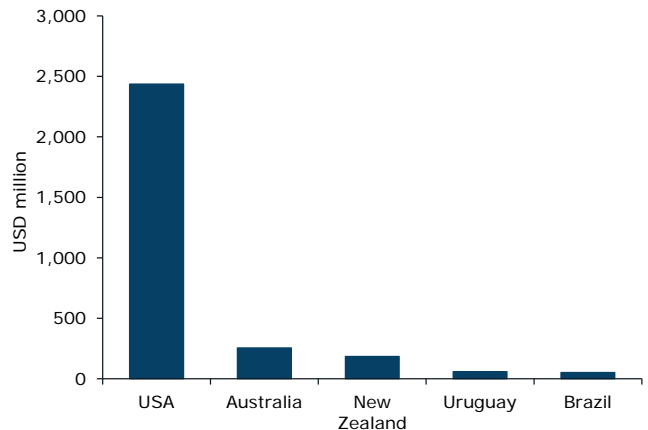
- A three-course meal for two at a mid-range restaurant in Canada costs US\$47.75, which is less than the equivalent in New Zealand. Canada ranks 20th in the world for this indicator, one place behind USA.
- A staple basket of groceries costs around US\$56. The price for the same basket of goods would cost US\$77 in New Zealand

Canada is the fourth largest food and beverage market in the TPPA. New Zealand producers will have to compete with the stronghold the US has in the import market for food and beverage products. The US stronghold is due to locality and long-held existing trade ties. Canada's main dairy imports from the US are whey (US\$73 million) and cheese (US\$68 million). Meat imports are mainly beef at US\$663 million. Wine type is mainly red varietals, suggesting some market opportunity for Sauvignon Blanc. The top fruit and vegetable imports from the US are lettuce (US\$436 million) and nuts (US\$415 million).

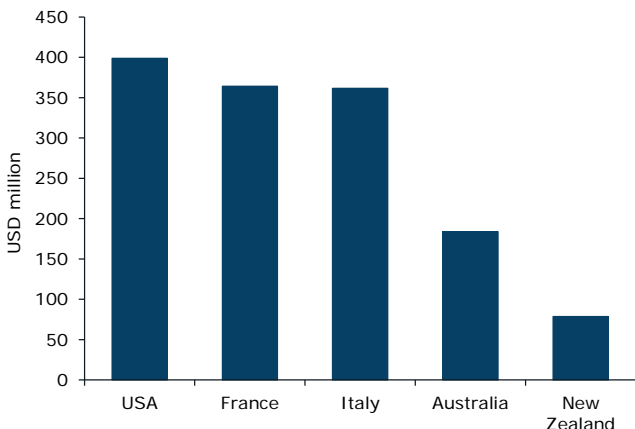
CANADIAN DAIRY IMPORTS



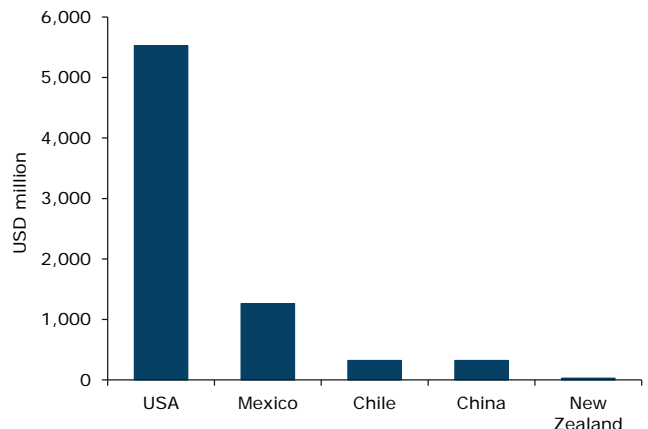
CANADIAN MEAT IMPORTS



CANADIAN WINE IMPORTS



CANADIAN FRUIT AND VEGETABLE IMPORTS



Source: ANZ, Comtrade

EDUCATION CORNER: TPPA IMPLICATIONS FOR FOOD AND BEVERAGE SECTOR

JAPAN

Japan boasts the third largest economy in the world. At US\$4.6 trillion, it accounts for 6% of world GDP and close to 18% of TPPA nations. Of all consumers in TPPA countries, 16% reside in Japan (127 million).

Business operations indicators for Japan are mid-range for TPPA countries. It is ranked sixth of the TPPA nations for perceived corruption (18th in the world).¹ Japan is 7th among TPPA partners for ease of doing business, and following closely behind Singapore and the United States, Japan is third in logistic performance.

New Zealand's current trade and investment position

Japan is New Zealand's fourth largest trading partner. Imports of Japanese products and services rose 18% (\$506 million) from 2011 – 2015, with manufactured goods (mainly vehicles, parts and accessories) up 16%. Services imports rose 43% over the same period. Merchandise exports fell 14% in the 4 years to 2015, amidst falls in forestry, manufactured goods, meat and fruit and vegetables. Wine, education and travel services have tempered the decline in exports.

Japan is New Zealand's third largest source of foreign investment among TPPA nations, at almost \$12 billion, in 2015. This is mostly direct investment in the forestry sector. New Zealand's investment in Japan is \$5.9 billion, which is 2.9% of all investment abroad and 5.2% of investment among TPPA countries.

Commodity/service	Exports (NZD million)				Imports (NZD million)			
	Dec-11	Dec-15	Change from 2011 - 2015(%)	Rank TPPA countries 2015	Dec-11	Dec-15	Change from 2011 - 2015(%)	Rank TPPA countries 2015
Dairy	583	602	3	2	0	3	n/a	3
Wine	11	15	36	5	0	0	n/a	4
Meat	324	260	-20	3	0	0	n/a	5
Forestry	561	405	-28	2	36	45	25	6
Fruit and vegetables	488	464	-5	1	1	1	0	9
Manufactured goods	1,081	850	-21	3	2,652	3,076	16	3
Total merchandise	3,441	2,952	-14	3	2,709	3,146	16	3
Transport. services	220	167	-24	3	72	84	17	5
Other business services	31	20	-35	4	30	48	60	4
IT services	22	0	-100	8	9	7	-22	5
Education	248	316	27	1	4	6	50	3
Tourism – Business	13	26	100	4	8	11	38	4
Tourism – Personal	209	208	0	4	25	57	128	3
Total services	764	784	3	3	159	228	43	4
Total trade	4,205	3,736	-11	3	2,868	3,374	18	3
	International investment in New Zealand				New Zealand investment abroad			
Total investment	7,273	11,563	59	3	3,033	5,877	94	3

Source: ANZ, Statistics NZ

Food and beverage overview – quick facts

- With 127 million Japanese consumers spending an estimated US\$365 billion on food and non-alcoholic beverages each year, only the United States has a larger food and beverage market in the TPPA.
- This equates to 14% of total goods and services spending, which is similar to New Zealand at 15%.
- The Japanese consume 327kg of dairy, fruit and vegetables, meat and wine per year which is 7%

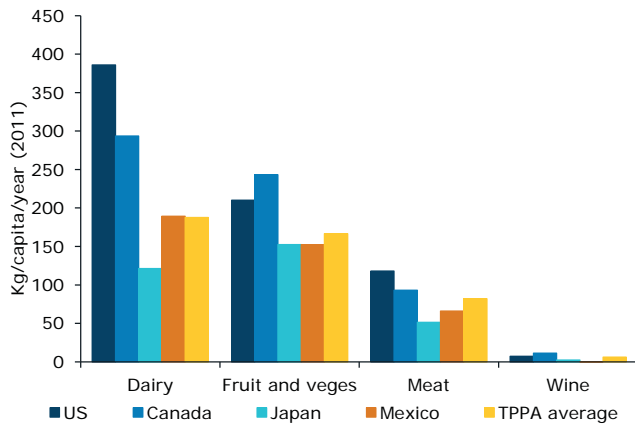
of total TPPA consumption² and 8th among the twelve countries. Most of the food and beverage consumption is fruit and vegetables (152kg), while fresh milk, pig and poultry meat make up most of the dairy and meat consumption. Most of wine consumed is of Chilean origin, although the more expensive French wine makes up most of the value.

¹ Corruption Perception Index and Logistics Performance Index data for Brunei Darussalam is not available.

² Singapore was not included due to data availability

EDUCATION CORNER: TPPA IMPLICATIONS FOR FOOD AND BEVERAGE SECTOR

FOOD AND BEVERAGE CONSUMPTION

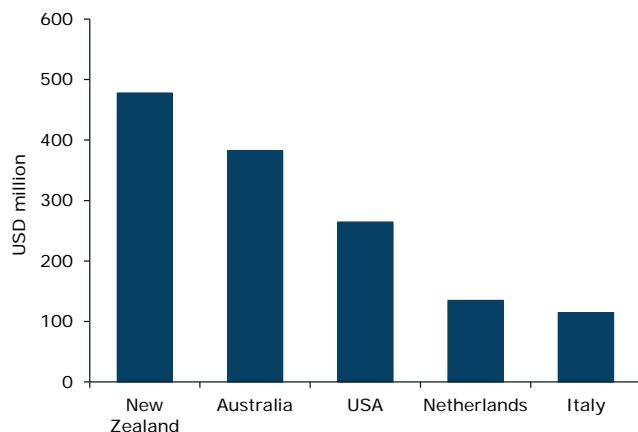


Source: ANZ, Food & Agriculture Organization of the United Nations

Cultural differences make for a different food distribution system to western countries.

- While traditional supermarkets still hold the largest market share of 54% for retailers, convenience stores make up 34% of the market. This compares with the US where convenience stores make up 1.8% of sales and Canada's 6.2%. The other 12% of food retail is sold through department stores.
- Convenience stores continue to increase their footprint. Their points of difference are to offer better quality and a wider variety of products, as well as providing delivery services. Delivery services are popular with elderly, which already makes up a significant proportion of the population and continues to grow.

JAPANESE DAIRY IMPORTS



New Zealand's main export is cheese. Under the TPPA, nearly all tariffs will be removed after a 16-year tariff phase-out period. The agreement also allows for fresh cheese to be mixed with domestic products with no duty. Other competitors for cheese are all the other four exporters, albeit the types of cheese vary.

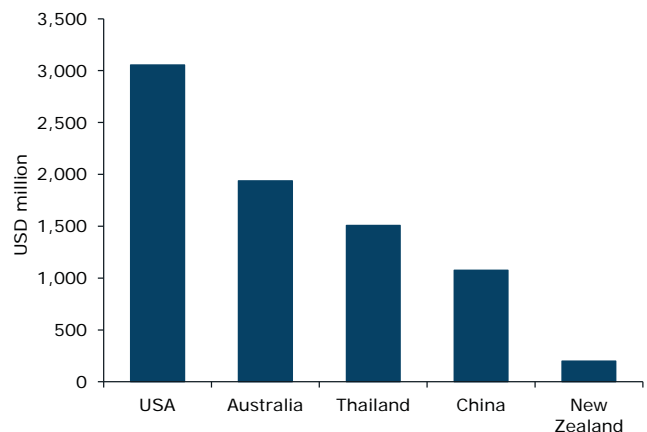
- Online sales are increasing and being offered by both supermarkets and convenience stores.

Food and beverage prices are on average cheaper than in New Zealand, although there are pockets of comparatively high prices:

- A three-course meal for two at a mid-range restaurant costs US\$40 on average. In New Zealand it is US\$62.
- A single meal at an inexpensive restaurant is US\$7, half the equivalent in New Zealand.
- A basket of food and beverage goods is more expensive in Japan than New Zealand, the USA or Canada. A staple basket costs around US\$80, the high price due mainly to the high cost of local beef and cheese. Market access will improve for both with the TPPA.

New Zealand has strong political and shared interests with Japan. New Zealand dairy products are imported more than any other country (mainly cheese and casein) and New Zealand is fourth on the list fruit and vegetable imports.

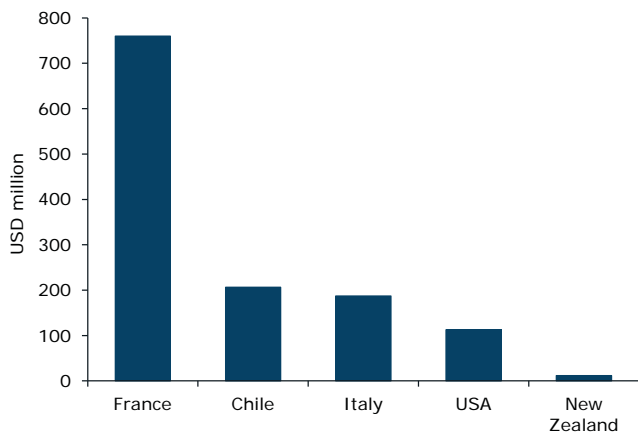
JAPANESE MEAT IMPORTS



New Zealand's main meat export is beef. The other two main competitors for beef are the US and Australia. The US also exports a lot of pork/poultry. Thailand and China send pork and poultry too.

EDUCATION CORNER: TPPA IMPLICATIONS FOR FOOD AND BEVERAGE SECTOR

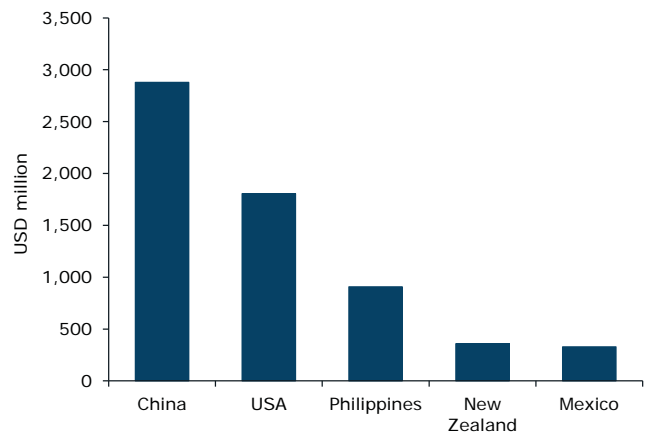
JAPANESE WINE IMPORTS



Japanese love their French wine in the form of sparkling (US\$760 million) although volumes have more than doubled from Chile over the last 4 years. This is largely due to prices of Chilean wines more favourable to younger consumers.

Source: ANZ, Comtrade

JAPANESE FRUIT AND VEGETABLE IMPORTS



New Zealand's main fruit and vegetable export is kiwifruit, US\$220 million. The US sent US\$1.2 billion of pig meat and almost a billion dollars' worth of beef to Japan in 2015.

EDUCATION CORNER: TPPA IMPLICATIONS FOR FOOD AND BEVERAGE SECTOR

MEXICO

Mexico's nominal GDP is US\$1.3 trillion having increased at a rate of 2.5%¹ from 2011 to 2014. It is the fifth largest among TPPA countries, accounting for 4.6% of total GDP in the agreement. The population of 120 million people was third largest among TPPA partners in 2014.

Perceptions of the Mexican's public sector corruption are mid-range world-wide, but second from the bottom in the TPPA.² Vietnam has the lowest ranking. Mexico also ranks 10th in logistics performance and in the bottom half of TPPA countries for ease of doing business (8th). This makes for a relatively challenging business environment, but Mexico is improving across all three indicators.

New Zealand's current trade and investment position

New Zealand and Mexico have complimentary economies for trade. New Zealand has agricultural goods to trade and this is something Mexico imports a lot of. Mexico produces a lot of manufactured goods, which is something New Zealand imports a lot of.

New Zealand dairy exports to Mexico are second only to the United States and manufacturing products (mainly electrical, optical and medical equipment) imported from Mexico rose 21% from 2011. Mexico is 28th on the list of New Zealand's trade partners.

Two-way investment between New Zealand and Mexico is minimal compared to other nations. Investment in Mexico fell from \$179 million in 2011 to just \$40 million in 2015, it is now 9th among TPPA nations ahead of Brunei Darussalam (\$14 million) and Chile (\$8 million).

Commodity/service	Exports (NZD million)				Imports (NZD million)			
	Dec-11	Dec-15	Change from 2011 - 2015(%)	Rank TPPA countries 2015	Dec-11	Dec-15	Change from 2011 - 2015(%)	Rank TPPA countries 2015
Dairy	344	285	-17	7	0	0	0	6
Wine	0	1	n/a	7	0	0	0	4
Meat	37	26	-30	7	0	0	n/a	5
Forestry	0	1	n/a	9	1	0	-100	10
Fruit and vegetables	5	7	40	8	6	7	17	6
Manufactured goods	24	23	-4	9	180	218	21	9
Total merchandise	415	366	-12	8	209	263	26	9
Transport. services	0	1	n/a	7	0	0	n/a	12
Other business services	9	1	-89	8	0	0	n/a	8
IT services	0	2	n/a	6	0	0	n/a	7
Education	0	7	n/a	6	1	0	-100	8
Tourism – Business	1	1	0	8	1	1	0	8
Tourism – Personal	8	12	50	7	3	7	133	8
Total services	24	27	13	8	22	22	0	8
Total trade	439	393	-10	8	231	285	23	9
	International investment in New Zealand				New Zealand investment abroad			
Total investment	2	n/a	n/a	12	179	40	-78	9

Source: ANZ, Statistics NZ

Food and beverage overview – quick facts

- Mexico's US\$206 billion dollars spent on food and non-alcoholic beverages per annum makes it the third largest market in the TPPA.
- This country is also third on the list of TPPA members for the proportion of their goods and services budget spent on food (23%).
- Mexico's economic expansion, better education, more dual-income households and rising middle class is increasing demand for more convenient, high-end products.

- Retailers have expanded into the convenience and small-store segments, which now have an approximate 50% share of the goods and services market.

The average Mexican consumes around 408kg of food and beverage³ per year, fifth among TPPA members⁴ yet still less than the average of 442kg.

¹ Real, local currency

² Corruption Perception Index and Logistics Performance Index data for Brunei Darussalam is not available.

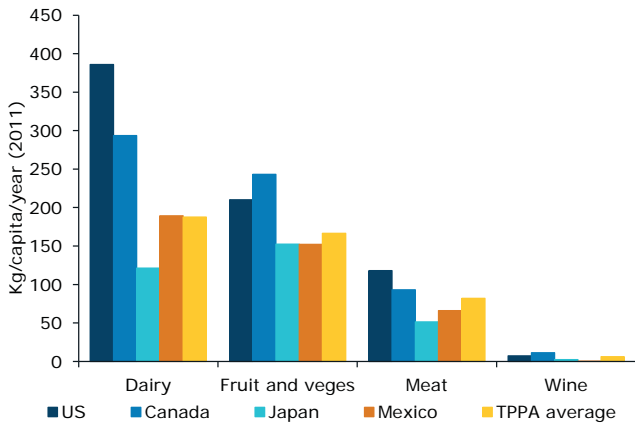
³ Dairy, fruit and vegetables, meat and wine

⁴ Singapore was not included due to data availability

EDUCATION CORNER: TPPA IMPLICATIONS FOR FOOD AND BEVERAGE SECTOR

Wine consumption per capita is the least among member consumers, while dairy, fruit and vegetable and meat consumption is about middle of the range. Fresh milk (excluding butter) and poultry are the main consumption products.

FOOD AND BEVERAGE CONSUMPTION



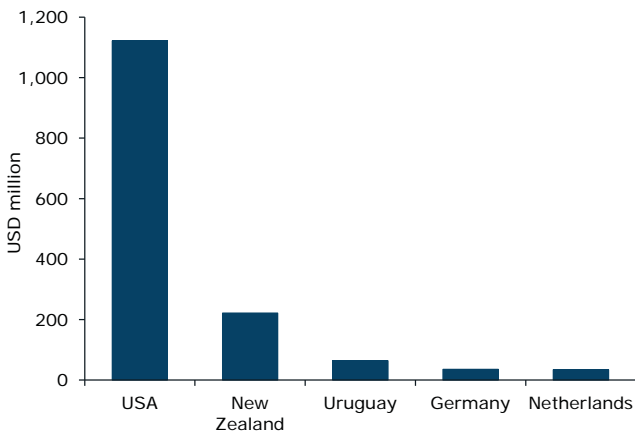
Source: ANZ, Food & Agriculture Organization of the United Nations

A meal for two at a mid-range restaurant, eating out alone, or buying a staple basket of goods is only a third of the cost New Zealand equivalents, indicating food and beverage prices are still fairly low on average.

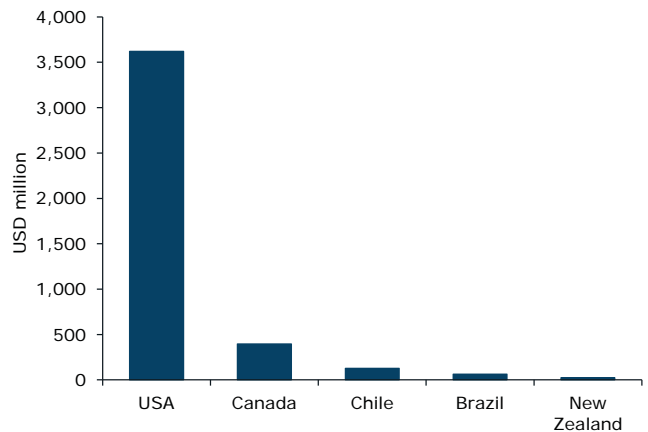
New Zealand food and beverage products will have to overcome Mexico's proximity to the United States and Central American nations to compete for market share.

Mexico imported US\$1.6 billion of dairy products in 2015 (mainly milk and cheese), 68% of which was sourced from the United States. New Zealand dairy products were second on the list, with US\$222 million (14%). The main meat and fruit and vegetables imports from USA were pig meat (US\$1.1 billion), poultry meat (US\$935 million) and apples (US\$276 million). New Zealand wine, meat and fruit & vegetable products don't feature in the top five nations Mexico imports from.

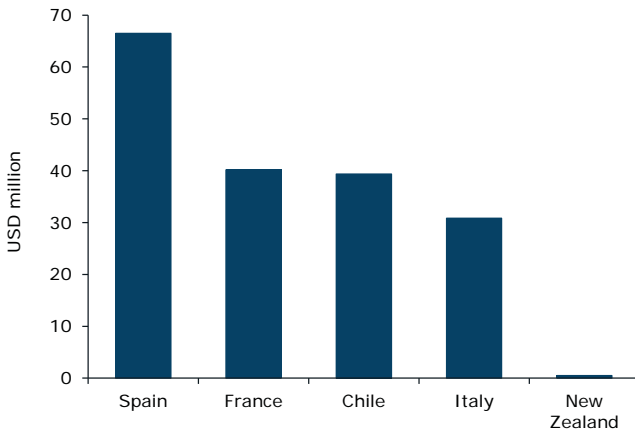
MEXICAN DAIRY IMPORTS



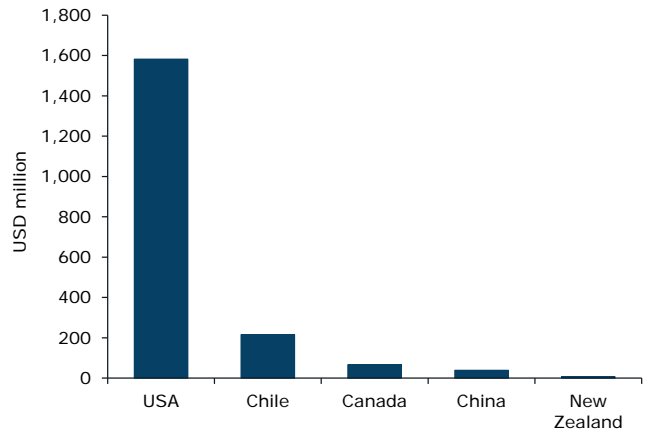
MEXICAN MEAT IMPORTS



MEXICAN WINE IMPORTS



MEXICAN FRUIT AND VEGETABLE IMPORTS



Source: ANZ, Comtrade

KEY TABLES AND FORECASTS

FX RATES	ACTUAL			FORECAST (END MONTH)						
	Feb-16	Mar-16	12-Apr	Jun-16	Sep-16	Dec-16	Mar-17	Jun-17	Sep-17	Dec-17
NZD/USD	0.661	0.693	0.687	0.65	0.63	0.59	0.58	0.58	0.60	0.62
NZD/AUD	0.925	0.902	0.901	0.88	0.88	0.88	0.88	0.88	0.88	0.89
NZD/EUR	0.606	0.609	0.602	0.59	0.59	0.55	0.52	0.50	0.50	0.51
NZD/JPY	74.62	77.81	74.26	68.3	66.2	62.0	58.0	58.0	60.0	62.0
NZD/GBP	0.477	0.481	0.482	0.48	0.43	0.39	0.37	0.37	0.38	0.38
NZ TWI	71.0	72.2	72.5	68.6	67.1	63.4	61.4	60.9	61.8	63.1

INTEREST RATES	ACTUAL			FORECAST (END MONTH)						
	Feb-16	Mar-16	12-Apr	Jun-16	Sep-16	Dec-16	Mar-17	Jun-17	Sep-17	Dec-17
NZ OCR	2.50	2.25	2.25	2.00	2.00	1.75	1.75	1.75	1.75	1.75
NZ 90 day bill	2.56	2.34	2.34	2.10	2.10	1.90	1.90	1.90	1.90	1.90
NZ 10-yr bond	2.97	2.93	2.84	2.90	2.90	2.90	3.10	3.20	3.40	3.50
US Fed Funds	0.50	0.50	0.50	0.75	0.75	1.00	1.00	1.25	1.25	1.50
US 3-mth	0.63	0.63	0.63	0.83	0.83	1.08	1.08	1.33	1.33	1.58
AU Cash Rate	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
AU 3-mth	2.29	2.29	2.26	2.30	2.30	2.40	2.40	2.40	2.40	2.40

ECONOMIC INDICATORS	Dec-15	Mar-16	Jun-16	Sep-16	Dec-16	Mar-17	Jun-17	Sep-17	Dec-17	Mar-18
GDP (% q/q)	0.9	0.7	0.7	0.6	0.6	0.6	0.7	0.7	0.7	0.7
GDP (% y/y)	2.3	2.8	3.1	2.8	2.5	2.4	2.4	2.5	2.6	2.7
CPI (% q/q)	-0.5	0.2	0.3	0.4	0.0	0.6	0.4	0.7	0.3	0.6
CPI (% y/y)	0.1	0.5	0.4	0.5	1.0	1.3	1.4	1.7	1.9	1.9
Employment (% q/q)	0.9	0.6	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4
Employment (% y/y)	1.4	1.3	1.6	2.6	2.0	1.8	1.8	1.7	1.7	1.6
Unemployment Rate (% sa)	5.3	5.8	5.7	5.6	5.5	5.5	5.4	5.4	5.3	5.2
Current Account (% GDP)	-3.0	-3.3	-3.6	-4.2	-4.7	-5.0	-5.1	-4.9	-4.6	-4.3
Terms of Trade (% q/q)	-2.0	-2.0	-3.0	-2.7	-0.3	0.8	1.8	2.7	1.8	0.8
Terms of Trade (% y/y)	-3.2	-6.2	-10.4	-9.4	-7.8	-5.3	-0.6	5.0	7.2	7.3

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

IMPORTANT INFORMATION

The distribution of this document or streaming of this video broadcast (as applicable, "publication") may be restricted by law in certain jurisdictions. Persons who receive this publication must inform themselves about and observe all relevant restrictions.

1. Disclaimer for all jurisdictions, where content is authored by ANZ Research:

Except if otherwise specified in section 2 below, this publication is issued and distributed in your country/region by Australia and New Zealand Banking Group Limited (ABN 11 005 357 522) ("ANZ"), on the basis that it is only for the information of the specified recipient or permitted user of the relevant website (collectively, "recipient"). This publication may not be reproduced, distributed or published by any recipient for any purpose. It is general information and has been prepared without taking into account the objectives, financial situation or needs of any person. Nothing in this publication is intended to be an offer to sell, or a solicitation of an offer to buy, any product, instrument or investment, to effect any transaction or to conclude any legal act of any kind. If, despite the foregoing, any services or products referred to in this publication are deemed to be offered in the jurisdiction in which this publication is received or accessed, no such service or product is intended for nor available to persons resident in that jurisdiction if it would be contradictory to local law or regulation. Such local laws, regulations and other limitations always apply with non-exclusive jurisdiction of local courts. Certain financial products may be subject to mandatory clearing, regulatory reporting and/or other related obligations. These obligations may vary by jurisdiction and be subject to frequent amendment. Before making an investment decision, recipients should seek independent financial, legal, tax and other relevant advice having regard to their particular circumstances.

The views and recommendations expressed in this publication are the author's. They are based on information known by the author and on sources which the author believes to be reliable, but may involve material elements of subjective judgement and analysis. Unless specifically stated otherwise: they are current on the date of this publication and are subject to change without notice; and, all price information is indicative only. Any of the views and recommendations which comprise estimates, forecasts or other projections, are subject to significant uncertainties and contingencies that cannot reasonably be anticipated. On this basis, such views and recommendations may not always be achieved or prove to be correct. Indications of past performance in this publication will not necessarily be repeated in the future. No representation is being made that any investment will or is likely to achieve profits or losses similar to those achieved in the past, or that significant losses will be avoided. Additionally, this publication may contain 'forward looking statements'. Actual events or results or actual performance may differ materially from those reflected or contemplated in such forward looking statements. All investments entail a risk and may result in both profits and losses. Foreign currency rates of exchange may adversely affect the value, price or income of any products or services described in this publication. The products and services described in this publication are not suitable for all investors, and transacting in these products or services may be considered risky. ANZ and its related bodies corporate and affiliates, and the officers, employees, contractors and agents of each of them (including the author) ("Affiliates"), do not make any representation as to the accuracy, completeness or currency of the views or recommendations expressed in this publication. Neither ANZ nor its Affiliates accept any responsibility to inform you of any matter that subsequently comes to their notice, which may affect the accuracy, completeness or currency of the information in this publication.

Except as required by law, and only to the extent so required: neither ANZ nor its Affiliates warrant or guarantee the performance of any of the products or services described in this publication or any return on any associated investment; and, ANZ and its Affiliates expressly disclaim any responsibility and shall not be liable for any loss, damage, claim, liability, proceedings, cost or expense ("Liability") arising directly or indirectly and whether in tort (including negligence), contract, equity or otherwise out of or in connection with this publication. If this publication has been distributed by electronic transmission, such as e-mail, then such transmission cannot be guaranteed to be secure or error-free as information could be intercepted, corrupted, lost, destroyed, arrive late or incomplete, or contain viruses. ANZ and its Affiliates do not accept any Liability as a result of electronic transmission of this publication.

ANZ and its Affiliates may have an interest in the subject matter of this publication as follows:

- They may receive fees from customers for dealing in the products or services described in this publication, and their staff and introducers of business may share in such fees or receive a bonus that may be influenced by total sales.
- They or their customers may have or have had interests or long or short positions in the products or services described in this publication, and may at any time make purchases and/or sales in them as principal or agent.
- They may act or have acted as market-maker in products described in this publication.

ANZ and its Affiliates may rely on information barriers and other arrangements to control the flow of information contained in one or more business areas within ANZ or within its Affiliates into other business areas of ANZ or of its Affiliates.

Please contact your ANZ point of contact with any questions about this publication including for further information on these disclosures of interest.

2. Country/region specific information:

Australia. This publication is distributed in Australia by ANZ. ANZ holds an Australian Financial Services licence no. 234527. A copy of ANZ's Financial Services Guide is available at <http://www.anz.com/documents/AU/aboutANZ/FinancialServicesGuide.pdf> and is available upon request from your ANZ point of contact. If trading strategies or recommendations are included in this publication, they are solely for the information of 'wholesale clients' (as defined in section 761G of the Corporations Act 2001 Cth). Persons who receive this publication must inform themselves about and observe all relevant restrictions.

Brazil. This publication is distributed in Brazil by ANZ on a cross border basis and only following request by the recipient. No securities are being offered or sold in Brazil under this publication, and no securities have been and will not be registered with the Securities Commission - CVM.

Brunei. Japan. Kuwait. Malaysia. Switzerland. Taiwan. This publication is distributed in each of Brunei, Japan, Kuwait, Malaysia, Switzerland and Taiwan by ANZ on a cross-border basis.

Cambodia. APS222 Disclosure. The recipient acknowledges that although ANZ Royal Bank (Cambodia) Ltd. is a subsidiary of ANZ, it is a separate entity to ANZ and the obligations of ANZ Royal Bank (Cambodia) Ltd. do not constitute deposits or other liabilities of ANZ and ANZ is not required to meet the obligations of ANZ Royal Bank (Cambodia) Ltd.

European Economic Area ("EEA"): **United Kingdom.** ANZ in the United Kingdom is authorised by the Prudential Regulation Authority ("PRA"). Subject to regulation by the Financial Conduct Authority ("FCA") and limited regulation by the PRA. Details about the extent of our regulation by the PRA are available from us on request. This publication is distributed in the United Kingdom by ANZ solely for the information of persons who would come within the FCA definition of "eligible counterparty" or "professional client". It is not intended for and must not be distributed to any person who would come within the FCA definition of "retail client". Nothing here excludes or restricts any duty or liability to a customer which ANZ may have under the UK Financial Services and Markets Act 2000 or under the regulatory system as defined in the Rules of the PRA and the FCA. **Germany.** This publication is distributed in Germany by the Frankfurt Branch of ANZ solely for the information of its clients. **Other EEA countries.** This publication is distributed in the EEA by ANZ Bank (Europe) Limited ("ANZBEL") which is authorised by the PRA and regulated by the FCA and the PRA in the United Kingdom, to persons who would come within the FCA definition of "eligible counterparty" or "professional client" in other countries in the EEA. This publication is distributed in those countries solely for the information of such persons upon their request. It is not intended for, and must not be distributed to, any person in those countries who would come within the FCA definition of "retail client".

Fiji. For Fiji regulatory purposes, this publication and any views and recommendations are not to be deemed as investment advice. Fiji investors must seek licensed professional advice should they wish to make any investment in relation to this publication.

Hong Kong. This publication is distributed in Hong Kong by the Hong Kong branch of ANZ, which is registered at the Hong Kong Monetary Authority to conduct Type 1 (dealing in securities), Type 4 (advising on securities) and Type 6 (advising on corporate finance) regulated activities. The contents of this publication have not been reviewed by any regulatory authority in Hong Kong. If in doubt about the contents of this publication, you should obtain independent professional advice.



IMPORTANT INFORMATION

India. This publication is distributed in India by ANZ on a cross-border basis. If this publication is received in India, only you (the specified recipient) may print it provided that before doing so, you specify on it your name and place of printing. Further copying or duplication of this publication is strictly prohibited.

Myanmar. This publication is intended to be of a general nature as part of customer service and marketing activities provided by ANZ in the course of implementing its functions as a licensed bank. This publication does not take into account your financial situation or goals and is not Securities Investment Advice (as that term is defined in the Myanmar Securities Transaction Law 2013). The contents of this publication have not been reviewed by any regulatory authority in Myanmar. If in doubt about the contents of this publication, you should obtain independent professional advice.

New Zealand. This publication is intended to be of a general nature, does not take into account your financial situation or goals, and is not a personalised adviser service under the Financial Advisers Act 2008.

Oman. This publication has been prepared by ANZ. ANZ neither has a registered business presence nor a representative office in Oman and does not undertake banking business or provide financial services in Oman. Consequently ANZ is not regulated by either the Central Bank of Oman or Oman's Capital Market Authority. The information contained in this publication is for discussion purposes only and neither constitutes an offer of securities in Oman as contemplated by the Commercial Companies Law of Oman (Royal Decree 4/74) or the Capital Market Law of Oman (Royal Decree 80/98), nor does it constitute an offer to sell, or the solicitation of any offer to buy non-Omani securities in Oman as contemplated by Article 139 of the Executive Regulations to the Capital Market Law (issued vide CMA Decision 1/2009). ANZ does not solicit business in Oman and the only circumstances in which ANZ sends information or material describing financial products or financial services to recipients in Oman, is where such information or material has been requested from ANZ and by receiving this publication, the person or entity to whom it has been dispatched by ANZ understands, acknowledges and agrees that this publication has not been approved by the CBO, the CMA or any other regulatory body or authority in Oman. ANZ does not market, offer, sell or distribute any financial or investment products or services in Oman and no subscription to any securities, products or financial services may or will be consummated within Oman. Nothing contained in this publication is intended to constitute Omani investment, legal, tax, accounting or other professional advice.

People's Republic of China ("PRC"). Recipients must comply with all applicable laws and regulations of PRC, including any prohibitions on speculative transactions and CNY/CNH arbitrage trading. If and when the material accompanying this document is distributed by Australia and New Zealand Banking Group Limited (ABN 11 005 357 522) ("ANZ") or an affiliate (other than Australia and New Zealand Bank (China) Company Limited ("ANZ C")), the following statement and the text below is applicable: No action has been taken by ANZ or any affiliate which would permit a public offering of any products or services of such an entity or distribution or re-distribution of this document in the PRC. Accordingly, the products and services of such entities are not being offered or sold within the PRC by means of this document or any other document. This document may not be distributed, re-distributed or published in the PRC, except under circumstances that will result in compliance with any applicable laws and regulations. If and when the material accompanying this document relates to the products and/or services of ANZ C, the following statement and the text below is applicable: This document is distributed by ANZ C in the Mainland of the PRC.

Qatar. This publication has not been, and will not be lodged or registered with, or reviewed or approved by, the Qatar Central Bank ("QCB"), the Qatar Financial Centre ("QFC") Authority, QFC Regulatory Authority or any other authority in the State of Qatar ("Qatar"); or authorised or licensed for distribution in Qatar; and the information contained in this publication does not, and is not intended to, constitute a public offer or other invitation in respect of securities in Qatar or the QFC. The financial products or services described in this publication have not been, and will not be registered with the QCB, QFC Authority, QFC Regulatory Authority or any other governmental authority in Qatar; or authorised or licensed for offering, marketing, issue or sale, directly or indirectly, in Qatar. Accordingly, the financial products or services described in this publication are not being, and will not be, offered, issued or sold in Qatar, and this publication is not being, and will not be, distributed in Qatar. The offering, marketing, issue and sale of the financial products or services described in this publication and distribution of this publication is being made in, and is subject to the laws, regulations and rules of, jurisdictions outside of Qatar and the QFC. Recipients of this publication must abide by this restriction and not distribute this publication in breach of this restriction. This publication is being sent/ issued to a limited number of institutional and/or sophisticated investors (i) upon their request and confirmation that they understand the statements above; and (ii) on the condition that it will not be provided to any person other than the original recipient, and is not for general circulation and may not be reproduced or used for any other purpose.

Singapore. This publication is distributed in Singapore by the Singapore branch of ANZ solely for the information of "accredited investors", "expert investors" or (as the case may be) "institutional investors" (each term as defined in the Securities and Futures Act Cap. 289 of Singapore). ANZ is licensed in Singapore under the Banking Act Cap. 19 of Singapore and is exempted from holding a financial adviser's licence under Section 23(1)(a) of the Financial Advisers Act Cap. 100 of Singapore. In respect of any matters arising from, or in connection with the distribution of this publication in Singapore, contact your ANZ point of contact.

United Arab Emirates. This publication is distributed in the United Arab Emirates ("UAE") or the Dubai International Financial Centre (as applicable) by ANZ. This publication: does not, and is not intended to constitute an offer of securities anywhere in the UAE; does not constitute, and is not intended to constitute the carrying on or engagement in banking, financial and/or investment consultation business in the UAE under the rules and regulations made by the Central Bank of the United Arab Emirates, the Emirates Securities and Commodities Authority or the United Arab Emirates Ministry of Economy; does not, and is not intended to constitute an offer of securities within the meaning of the Dubai International Financial Centre Markets Law No. 12 of 2004; and, does not constitute, and is not intended to constitute, a financial promotion, as defined under the Dubai International Financial Centre Regulatory Law No. 1 of 200. ANZ DIFC Branch is regulated by the Dubai Financial Services Authority ("DFSA"). The financial products or services described in this publication are only available to persons who qualify as "Professional Clients" or "Market Counterparty" in accordance with the provisions of the DFSA rules. In addition, ANZ has a representative office ("ANZ Representative Office") in Abu Dhabi regulated by the Central Bank of the United Arab Emirates. ANZ Representative Office is not permitted by the Central Bank of the United Arab Emirates to provide any banking services to clients in the UAE.

United States. If and when this publication is received by any person in the United States or a "U.S. person" (as defined in Regulation S under the US Securities Act of 1933, as amended) ("US Person") or any person acting for the account or benefit of a US Person, it is noted that ANZ Securities, Inc. ("ANZ S") is a member of FINRA (www.finra.org) and registered with the SEC. ANZ S' address is 277 Park Avenue, 31st Floor, New York, NY 10172, USA (Tel: +1 212 801 9160 Fax: +1 212 801 9163). Except where this is a FX-related publication, this publication is distributed in the United States by ANZ S (a wholly owned subsidiary of ANZ), which accepts responsibility for its content. Information on any securities referred to in this publication may be obtained from ANZ S upon request. Any US Person receiving this publication and wishing to effect transactions in any securities referred to in this publication must contact ANZ S, not its affiliates. Where this is an FX-related publication, it is distributed in the United States by ANZ's New York Branch, which is also located at 277 Park Avenue, 31st Floor, New York, NY 10172, USA (Tel: +1 212 801 9160 Fax: +1 212 801 9163). Commodity-related products are not insured by any U.S. governmental agency, and are not guaranteed by ANZ or any of its affiliates. Transacting in these products may involve substantial risks and could result in a significant loss. You should carefully consider whether transacting in commodity-related products is suitable for you in light of your financial condition and investment objectives. ANZ S is authorised as a broker-dealer only for US Persons who are institutions, not for US Persons who are individuals. If you have registered to use this website or have otherwise received this publication and are a US Person who is an individual: to avoid loss, you should cease to use this website by unsubscribing or should notify the sender and you should not act on the contents of this publication in any way.

Vietnam. This publication is distributed in Vietnam by ANZ or ANZ Bank (Vietnam) Limited, a subsidiary of ANZ. Please note that the contents of this publication have not been reviewed by any regulatory authority in Vietnam. If you are in any doubt about any of the contents of this publication, you should obtain independent professional advice.

This document has been prepared by ANZ Bank New Zealand Limited, Level 10, 171 Featherston Street, Wellington 6011, New Zealand, Ph 64-4-802 2361, e-mail nzeconomics@anz.com, <http://www.anz.co.nz>

