NEW ZEALAND ECONOMICS
NEW ZEALAND DAIRY UPDATE

5 February 2016

CONTRIBUTORS

Cameron Bagrie
Chief Economist
Telephone: +64 4 802 2212
E-mail: cameron.bagrie@anz.com

Con Williams
Rural Economist
Telephone: +64 4 802 2361
E-mail: Con.Williams@anz.com

LOWER FOR LONGER

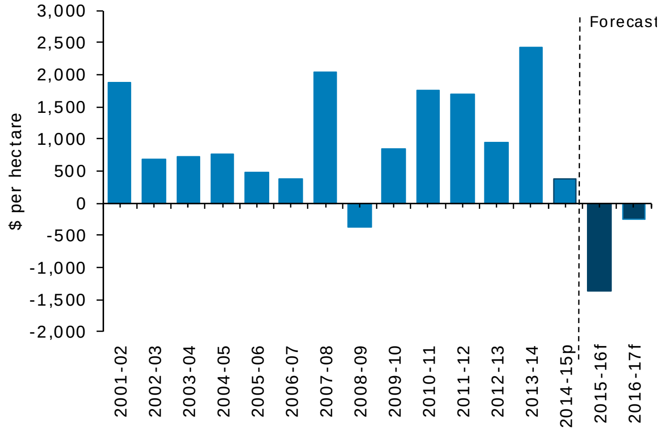
- **We have revised our milk price forecast to $3.95/kg MS for 2015/16 and at this early stage $5.00/kg MS for 2016/17** (previously $4.25 and $5.50-5.75/kg/MS respectively).
- **This means for the average Fonterra farmer that is fully share backed cashflow looks like $3.81/kg MS in 2015/16 and $4.89/kg MS in 2016/17.** Our estimates suggest a cumulative loss of around $1.50/kg MS over the two seasons if these forecasts become reality, or further cost efficiencies can't be found over coming months. Larger cumulative losses would have been apparent if not for improvements in cost structures. We believe the average breakeven has gone from the mid to high 5's/kg MS to the low-mid 5s/kg MS.
- **Price action is poor and European supply dynamics are very bearish at present.** There simply appears too much supply for the market to handle despite some encouraging demand signals and the likes of China's import requirements having improved.
- **Two important structural shifts in the form of increased European supply and a lower cost of production are dominating**. Both these factors are expected to continue to supress prices and delay expectations for a rebound.
- USD dairy prices are weaker and the NZD is more elevated than what we had previously assumed. **As such, it's difficult to maintain a mid-$5/kg MS forecast for 2016/17**.
- **We are encouraged by the steps being taken to drive cost efficiencies and improve productivity amidst a challenging payout backdrop**. More of the same will be required over the years ahead. A return to positive cash-flow will now not likely be seen until 2017/18.
- **The economic knock-on to the dairy sector and broader economy will be substantial**. Lower dairy prices are at the forefront of a near 20% fall in New Zealand's goods terms of trade over 2016; that's a huge hit to the economy's purchasing power and enough to knock up to 3 percentage points off GDP growth over two years. 2016/17 will represent the second successive year of a sub-breakeven payout (in terms of pure cash-flow as opposed to the payout). The sector is just under 5% of GDP directly and with the indirect channel close to 10% of GDP. A further step lower in dairy prices is also coming at a time funding costs are on the rise; that's a nasty mix.
- **With low international prices, a lower dairy payout and likely pressure on cash-flow until 2017/18 ups the ante on the OCR needing to move lower** (the December *MPS* included a low export price scenario that required 50bps of easing), **we are not yet at that juncture**. The rest of the economy is generally vibrant / performing well and until we see material signs of a turn we'll remain in the no change camp.
- **The New Zealand economy is more than dairy alone, but challenges in the sector need to be respected and closely monitored in terms of the economic flow-on impacts.**

NEW ZEALAND DAIRY UPDATE

We have revised down our forecasts for the Fonterra milk price payout to $3.95/kg MS for 2015/16 and to $5.00/kg MG for 2016/17. The opening round of milk price forecasts could well be sub-$5/kg MS in May with further deterioration in international prices likely in the short-term.

For the average Fonterra farmer that is fully share backed cashflow will be just $3.81/kg MS in 2015/16 and $4.89/kg MS in 2016/17. Our estimates suggest a cumulative loss of around $1.50/kg MS over the two seasons if these forecasts become reality, or if further cost efficiencies can't be found over coming months.

FIGURE 1. AVERAGE DAIRY FARM PROFITABILITY BEFORE TAX



Includes allowance for deprecation, which is a non-cash expense. However, it doesn't include allowance for personal drawings.

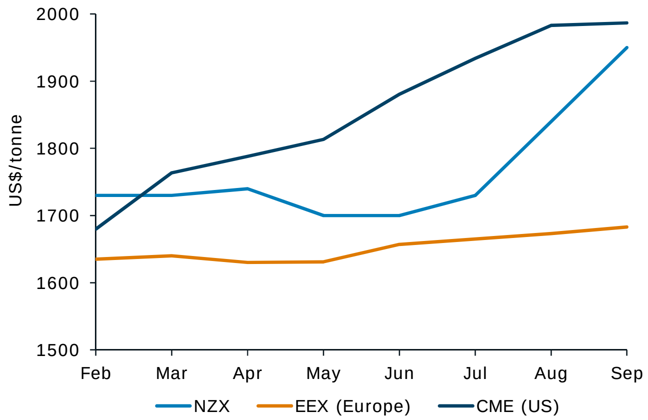
Source: ANZ, Dairy NZ

Short-term dairy market dynamics are very challenging. The current issue is far too much supply for the market to handle. Part of this is seasonal, which should eventually rectify itself. However, there are also two structural shifts in the form of increased European supply and a lower cost of production to consider. Both these factors are expected to supress prices for some time to come (we explained in more detail the impacts in the August 2015 *Agri Focus: Reality Bites: A Dairy Tale*).

European supply dynamics are very bearish at present, with suggestions milk supply will show year-on-year growth of 5%+ through to April this year. Part of this is due to milk supply being held down last April so as to avoid having to avoid levies for exceeding production quotas. Efficient producing countries, such as Ireland, Netherlands and Germany are also leading the way with supply growth that seems to have surprised many earlier estimates. The less efficient producing areas also continue to hold-on for now, supporting aggregate milk supply. There is some emerging evidence of processing capacity constraints, milk supply declining in less efficient areas and further downward pressure on farm-gate returns, but more is needed to slow aggregate supply growth.

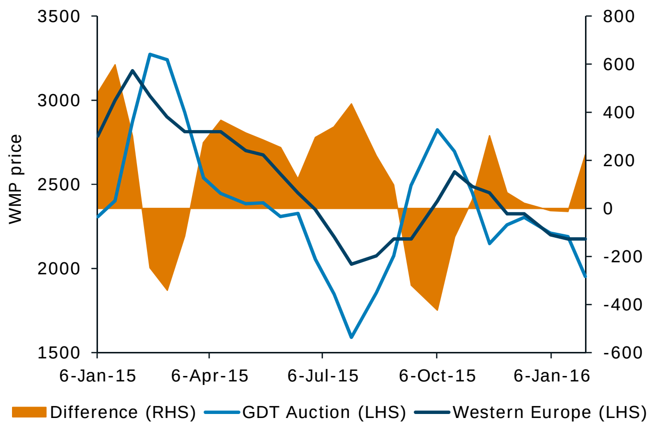
Another issue is compared with the July/August period when dairy markets took a dive European milk powder was trading at a premium to New Zealand product. This isn't the case at present with European powder now being sold at, or below the price of New Zealand product. This is reflected in New Zealand dairy companies comments of buyers receiving very competitive price offers from multiple sources at present. This is expected to continue through to the middle of the year with higher seasonal milk flow in the Northern Hemisphere. This weighs on the remainder of product left to sell for the 2015/16 season and the opening milk price forecasts come May.

FIGURE 2. SKIM MILK POWDER FUTURE PRICE CURVES



Source: ANZ, NZX, EEX, CME

FIGURE 3. WHOLE MILK POWDER PHYSICAL MARKET PRICES



Source: ANZ, USDA

There are other supply issues too. China's own milk supply is on the seasonal increase, which will reduce short-term milk powder import needs. US supply has been stronger than anticipated and improved seasonal conditions, as well as low grain

NEW ZEALAND DAIRY UPDATE

prices is raising the prospect of more SMP and butter from California as domestic prices for butter supports this product mix. And finally, New Zealand supply conditions have improved with regular rainfall across many parts of the country since the start of the year.

Industry forecasts remain for a 5-6% y/y decline in New Zealand's milk supply for 2015/16. This implies a 9-11% y/y drop in milk supply over the last five months of the season. This seems less likely with the improvement in pasture/forage conditions, high palm kernel imports (+10% y/y in 2015), low domestic grain prices and year-to-date performance**. At this stage it seems more likely there will be around a 3% y/y decline for the entire season.** The last five months of the season are always more variable given the management choices that can be undertaken, but year-to-date results highlight the resilience of New Zealand milk supply.

An improved domestic supply outlook, more competitive price pressure from Europe than July/August, higher seasonal milk flow within China and already large reduction in GDT WMP auction volumes would appear to limit dairy companies' options to rally prices like in the July/August period. Options around product mix are greater at this time of the year, but apart from this and increasing inventory levels (which is just as likely to prolong low prices) other options seem more limited this time round.

The one bright spot amongst the gloom is demand appears to have held up better than widely acknowledged. This could kick prices at some point if supply moderates, but how much and when is difficult to assess. How much of the steady demand is due to low prices is always difficult to assess too. Affordability of milk and dairy products in emerging markets can be a challenge for some so it's likely playing its part.

China's imports of milk powder seem to have normalised somewhat recently too. While total milk powder imports were back significantly year-on-year in 2015, exports for all other products rose (butter, cheese, liquid milk, higher value whey proteins and lactose). This suggests demand growth is still alive, but also market demand is moving away from whole milk powder. If this is the case it has very large implications for New Zealand's product mix and the industry's direction in which it will need to head to meet the needs of the Chinese marketplace.

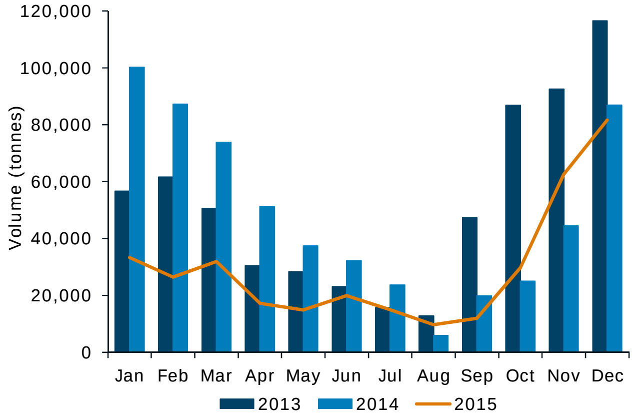
TABLE 1. CHINA IMPORT VOLUMES FOR DECEMBER 2015

Commodity	Actual (metric tons)	vs last year	vs last month**	YTD vs previous year
Whole Milk Powder*	16,989	-30.6%	-39.7%	-48.9%
Skim Milk Powder*	15,530	5.0%	25.9%	-20.8%
Combined WMP/ SMP*	32,519	-17.2%	-19.7%	-41.2%
Whey Products***	42,357	21.9%	15.1%	8.1%
WPC 80+	1,799	54.8%	59.9%	8.2%
Lactose	7,944	4.1%	12.9%	5.5%
Butter	7,200	202.0%	38.0%	6.5%
Cheese	7,334	43.4%	-4.0%	14.6%

*not sweetened
** calculated on daily average basis
*** includes whey permeate, demin whey, sweet whey powder, WPC up to 79.9%

Source: ANZ, HighGround Dairy

FIGURE 4. NEW ZEALAND WHOLE MILK POWDER EXPORTS TO CHINA

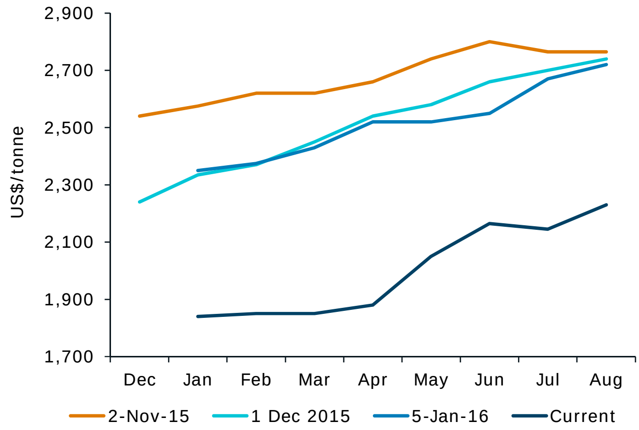


Source: ANZ, Statistics NZ

The other part of our milk price forecast reduction is a resilient NZD. Due to dairy companies FX hedging policies when there is a large fall in the currency it can take some time to completely flow through to the farm-gate - this is the case for the 2015/16 season. A lower NZD had been a key part of our previous $5.50-$5.75/kg MS forecast for 2016/17. However, the NZD/USD resilience suggests it will be now above $0.65c, as opposed to below it. **Combined with the forward price curve for milk powders flattening both in the New Zealand's physical and future markets, but also offshore, it makes for an unfavourable mix in terms of its impact on farm-gate prices. With both key assumptions heading in the wrong direction it's difficult to maintain a mid-$5/kg MS forecast for 2016/17.**

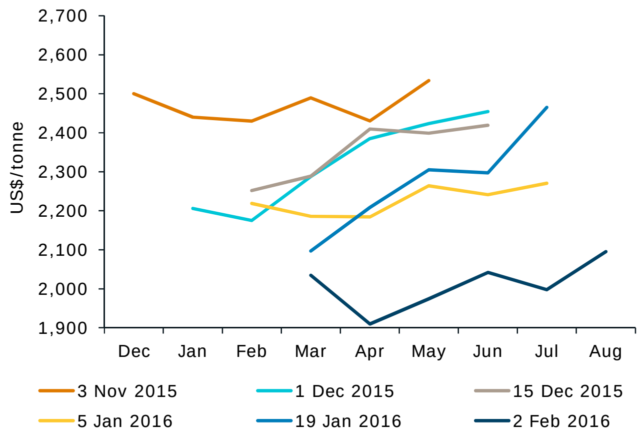
NEW ZEALAND DAIRY UPDATE

FIGURE 5. NZX FUTURES PRICE CURVE



Source: ANZ, NZX

FIGURE 6. GDT AUCTION PRICE CURVE



Source: ANZ, GlobalDairyTrade

While low dairy prices and its associated impact on cash flow and profitability ups the ante on the OCR needing to move lower (the December *MPS* included a low export price scenario that required 50bps of easing), we are not yet at that juncture. Much of the rest of the economy is vibrant / performing well and until we see material signs of a turn we'll remain in the no OCR change camp.

Below are some modelled cash-flow scenarios. They are indicative, but can provide a useful guideline to farmers in the current environment. The reduction of $0.20/kg MS from current industry forecasts are taken out of deferred payment in 2016/17. It's assumed the advance rate to be paid to June 2017 is 80% of the season's forecast and includes the capacity adjustment. We don't forecast dividends, but have assumed $0.38 per share. The latest update from Fonterra implied this could be higher courtesy of a better performance for key businesses, the low milk price and smaller proportion than normal being retained. A more up-to-date view should be provided when Fonterra's half-year results are released.

In the December 2014 *Agri Focus* we wrote about managing the topsy turvy dairy market. It included some suggestions to help with the decision making process. Below were 16 takeaways that still apply.

- **Identify where you are now and how you will manage your cash flow for the next 18 months.**
- **Be proactive and create solutions/plans that suit your individual situation.**
- **Budgeting and benchmarking is critical to provide agility and allow informed decisions to be made when something changes.**
- **When formulating a plan and budget test out a few milk price scenarios for the next two seasons.** The end milk price isn't a sure thing until after the season is complete so you should be prepared for different outcomes.
- **Stay up-to-date, things can change quickly.**
- **Work with your accountants on tax and planning.**

TABLE2. MODELLED CASH FLOW SCENARIOS FOR DIFFERENT MILK PRICE FORECASTS.

			Milk price scenario			
			Milk price of $3.95	Milk price of $4.75	Milk price of $5.00	Milk price of $5.25
	2013/14	2014/15	2015/16p	2016/17f	2016/17f	2016/17f
Deferred payment	$0.69	$1.50	$0.07	$0.51	$0.51	$0.51
Milk price (inc. Capacity adjustment)	$6.90	$4.10	$3.44	$3.80	$4.00	$4.20
Dividend	$0.21	$0.15	$0.30	$0.38	$0.38	$0.38
Fully shared	$7.80	$5.75	$3.81	$4.69	$4.89	$5.09

The advance milk price rate is through to June for May milk. It is assumed to be 80% of opening forecasts. The opening advance in May is usually around the 65% mark, but could be lower if international prices push lower in the short-term

- **Look at any principal debt repayments**; no point in loading up the current account just to reduce term debt and then pay an extra premium.
- **Consult your banks on funding requirements early and as needs change.**
- **Avoid short-term thinking.** Understand your cost structures and the levers you can pull to achieve the best long-term outcome.
- **Decisions are complex and require advice. Ensure it is high quality.**
- **Focus on what you can control – there are still a lot of things you can do.**
- **Spend very little time on things outside your control** – e.g. payout.
- **There is no substitute for doing the basics well.**
- **Before you write a cheque ask yourself – do you really need it**, will it give a return and can it wait?
- **Look after yourself and your team.** Use the help and support around you. To reduce stress, work on communication in the family and with advisers.
- **Keep perspective by continuing to make time for interests outside farming and family.**

IMPORTANT NOTICE

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 NOTICE

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