

# **Australian Agribusiness**

# Fertiliser Market Update

## 09 January 2009

#### **Author:**

Paul Deane Rural and Regional Economist +61 9273 6295 Paul.Deane@anz.com

## State Agribusiness Managers:

Gavin Emery - Queensland +61 7 4722 3250 Gavin.Emery@anz.com

Tim Leske - NSW +61 2 6926 9920 Tim.Leske@anz.com

James McKeefry - Victoria +61 423 024 503 James.Mckeefry@anz.com

Stephen Radeski – SA/NT/WA +61 8 8218 8028 Stephen.Radeski@anz.com

#### Our Vision:

For Economics & Markets Research to be the most respected, sought-after and commercially valued source of economics and markets research and information on Australia, New Zealand, the Pacific and Asia.

## World prices in freefall....

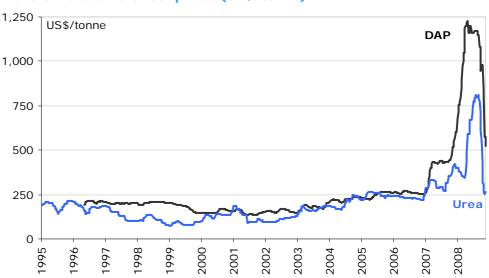
The fall in global fertiliser prices has been nothing short of breathtaking. In the space of just a few months, the world price of diammonium phosphate (DAP) has fallen by 60% while prices for urea have fallen by 55%.

With such extreme price movements in such a short space of time, a common theme has emerged across countries. Wholesalers/retailers have been caught with high priced fertiliser inventory bought at the top of the market. Suppliers with these expensive stocks have been reluctant to lower prices until this higher priced inventory is cleared, despite the dramatic slide in prices. On the flipside, farmers are only too aware of the slump in prices and have been delaying purchases until retail fertiliser prices start to fall.

The strong interest within the Australian agribusiness sector between global fertiliser prices movements and Australian farm gate fertiliser prices has been illustrated by recent government scrutiny. In July 2008, the Australian Competition and Consumer Commission (ACCC) released a report on the examination of Australian fertiliser prices. The ACCC concluded that it had not been provided with any evidence suggesting a likely breach of the Trade Practices Act by any participant in the Australian fertiliser industry. And in the last month an interim report was released by the Senate Committee reviewing the Australian fertiliser industry's structure and competitiveness.

Within the Australian farm gate sector, the interest in fertiliser prices was highlighted in December 2008 in the Australian rural press. A new fertiliser company, Direct Farm Inputs, gained significant prominence by advising it was importing DAP fertiliser for January/February 2009 delivery at a retail price of around A\$1,000 per tonne. Anecdotal reports indicated that this was well below the price other suppliers were advertising DAP fertiliser at for prompt pick-up. This was further played out in the rural press in subsequent weeks with reports that the advertised price of existing supplies of DAP/MAP had fallen by over A\$600 per tonne.

## Chart1. Global fertiliser prices (US\$/tonne)





## **Australian fertiliser imports**

An analysis of fertiliser imports into Australia over the last 6 months highlights the situation that sellers of imported fertiliser have faced.

From July to November 2008, DAP and MAP fertiliser imports were approximately 110,000 tonnes at an average Free On Board (FOB) price of A\$1,330-1,380 per tonne. Adding ocean freight, insurance and wholesale/retail margins to this FOB price translates to a retail price to farmers of around \$1,600 per tonne – consistent with the advertised price in early December 2008.

Even for November 2008 imports, the average import FOB price for MAP/DAP was still rising. This is consistent with the A\$ import parity price peaking in October and allowing for delivery times from key exporting countries.

A compounding factor has also been the high level of phosphate fertiliser imports leading into the 2008/09 season. Based on ABS data, the volume of DAP and MAP fertilisers reached 895,427 tonnes in 2007/08, well above the level of imports in recent seasons (see chart 2) and at double the price of the 2006/07 season average.

Compared to phosphate fertiliser imports, the price of urea imports has been less volatile. The average import FOB price of urea fertiliser in Australia in 2007/08 was A\$436/tonne, up just 28% year-on-year.

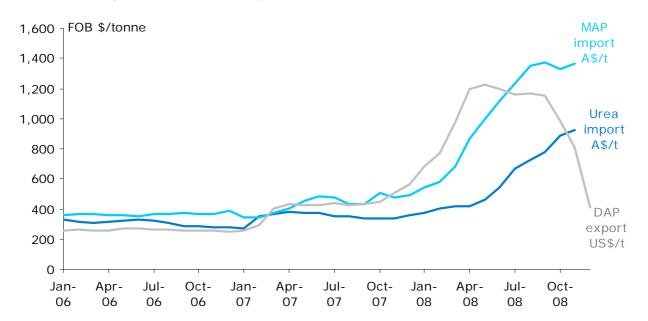
Chart 2. Australian DAP & MAP fertiliser imports



Chart 3. Australian Urea fertiliser imports



Chart 4. Monthly FOB trade fertiliser prices





## Where to from here?

A combination of factors point to lower fertiliser prices in Australia in 2009 compared with 2008, but China's ever changing export policy on fertiliser will remain a wild card.

## Freight rates to remain low....

Given import parity pricing (which includes freight costs) is the main driver in domestic pricing of Australian fertiliser, lower freight costs translates to lower Australian fertiliser prices (all else being equal). And freight rates have collapsed over the last 4 months. With little likelihood of a return to the heady heights in bulk dry freight rates reached in mid-2008, fertiliser freight rates are likely to average much lower in 2009 compared with 2008.

#### Oil prices will continue to flounder....

Particularly importantly for urea prices, oil and energy prices are not expected to rebound significantly in 2009. Natural gas prices, which are closely linked to global oil prices, is a key input for ammonia which in turn is used to make urea and ammonium phosphate fertilisers. ANZ forecasts are for crude oil prices to continue to flounder at around recent levels, averaging US\$40 per barrel in 2009. Crude oil prices are expected to be particularly weak in the first half of 2009, with an increasing likelihood that prices will fall back to the US\$30-35 per barrel range in the March 2009 quarter. This should help contain fertiliser prices in 2009, especially in the first quarter.

## International prices back to 'pre-bubble' levels....

In late December 2008, the DAP FOB US Gulf price had fallen to around US\$400/t, a 60% decline since mid-October 2008. The last time DAP prices were at these levels were in the first quarter of 2007. Urea US Gulf FOB export prices had fallen to below US\$250/t by December 2008 and were back to 'pre-bubble' levels of late 2006. Given the dramatic fall for most agricultural commodity prices in 2008 and no prospect of prices returning to these record highs, global fertiliser demand should be modestly weaker in 2009. With global fertiliser prices back to pre-bubble levels, it seems relatively safe to assume that prices are close to more sustainable price levels.

## Watch China's policy on fertiliser exports....

China's involvement in world trade for fertiliser has been an important factor in increasing the volatility of fertiliser prices in recent years. Up until 2006, China was a net importer of phosphate fertilisers but in 2007 it not only became self-sufficient in its phosphate requirements, but actually became a significant exporter of DAP, MAP and TSP in that year.

In April 2008 the Chinese Government imposed an additional 100% export duty (in addition to an existing 30-35% duty) on DAP, MAP and urea to restrain exports and reduce domestic prices for Chinese farmers. This policy adjustment sent a shudder through the global fertiliser market and was a contributing factor to global fertiliser prices jumping so sharply in the first half of 2008. But this was not the end of it, in late August 2008 a further step-up was announced on China's export duties on nitrogenous fertilisers taking the total export tariff to 175%.

However after staying away from exporting fertiliser for nearly a year by pricing itself out of the global market, the Chinese government has done a back-flip. With China's export policy on fertiliser depressing local prices (domestic DAP and MAP prices are reported to be 30% below the international market), China's domestic fertiliser producers were caught between rising feedstock prices and an inability to pass this through the pipeline. Not surprisingly, China's domestic fertiliser industry has suffered, resulting in the government announcing a cut in the export tariff in an attempt to re-invigorate the sector.

The latest policy splits the fertiliser export tariff rate in China between the high and low season, with the low season (November/December/January and June/July) tariff just 10% on urea, DAP and MAP if the export price is below a certain level (see table 1). If the price is above this level the export tariff jumps to 110% in the low season.

**Table 1. Off-season Fertiliser Export Tariff Rates for China** 

|                           | Urea | DAP  | MAP  | TSP  |
|---------------------------|------|------|------|------|
| Base Price Rmb/t          | 2300 | 4000 | 3700 | 3100 |
| Export Tariff Below Price | 10%  | 10%  | 10%  | 10%  |
| Export Tariff Above Price | 110% | 110% | 110% | 110% |
| Base Price conversions    |      |      |      |      |
| US\$/t                    | 337  | 586  | 542  | 454  |
| A\$/t                     | 478  | 830  | 768  | 644  |

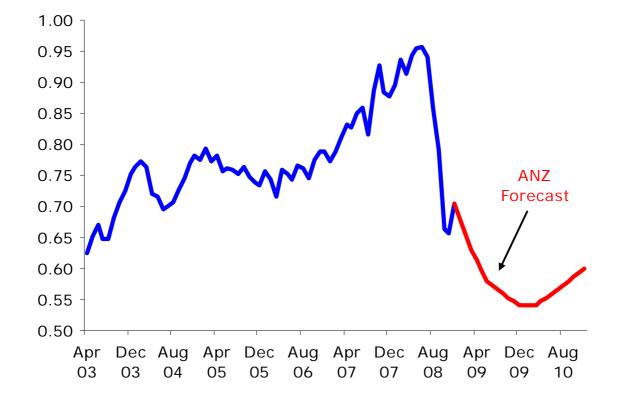


This change which is reported to have been in effect since December 2008, combined with reports of high stocks of phosphate fertilisers in China and the world MAP/DAP price well below China's tariff base rate in US\$ terms (therefore the export tariff rate is only 10%), is a strong incentive for significant amounts of MAP/DAP to be exported in the immediate period. This has no doubt been a factor in driving global fertiliser prices lower recently. This policy change should help keep global fertiliser prices depressed through to the end of January 2009, but beyond this it is difficult to gauge how much fertiliser from China is likely to be exported for the remainder of the year. One unknown is to what extent China's domestic fertiliser industry has/is rationalising with the latest period of low profitability, which influences capacity and ultimately dictates the amount of surplus available for export.

## A weaker A\$ may work against domestic fertiliser prices....

Assuming global fertiliser prices stabilise at around current levels for 2009, a key driver of domestic fertiliser prices will be exchange rate fluctuations. While the A\$/US\$ exchange rate is likely to remain highly volatile, ANZ forecasts are for further weakness in the A\$ against the US\$. By the end of 2009, our modelling forecasts the A\$ will have fallen to 54 US cents. This would be a negative for Australian fertiliser prices (falling A\$ equals more expensive imports), with a near 25% devaluation of the A\$ (from 71 US cents to 54 US cents) adding around A\$200 per tonne for DAP and A\$100 to urea prices for Australian farmers at current world prices.







## **ANZ Australian import parity price series**

To illustrate the impact changing global fertiliser prices and currency movements have on Australian import prices, we have constructed an Australian import parity fertiliser price series for DAP and urea.

The assumption is that the Australian fertiliser market tends to be driven by import parity pricing which drives retail prices. That is, the price that fertiliser can be imported into Australia is a key determinant for Australian fertiliser prices. With around 35% and 60% of all phosphate and nitrogen fertilisers consumed in Australia imported respectively, plus some domestic production exported in off-peak periods, this assumption appears reasonably valid. The ANZ import parity prices calculated are effectively a US Gulf CIF (Cost Insurance Freight) price converted to Australian dollars and so does not include wholesaler/retailer margins.

A note of caution is warranted when interpreting these results and relating them to likely changes in retail prices for the following reasons:

- We have used weekly global fertiliser prices and currency movements, making our series more volatile than actual fertiliser prices at retail. Indeed this is the case with many agricultural products, prices tend to fluctuate less at retail than the underlying input costs imply.
- We have not accounted for the delay between when fertiliser is purchased overseas to arriving and being made available for distribution and sale in Australia. This influences commercial decisions on when retail prices are adjusted, especially considering fertiliser imports can be 'lumpy'. Peak import volumes of phosphate fertilisers are in the first half of the calendar year (January to June), while for urea the peak importing period is Q2 each calendar year (April to June).
- For much of 2008, our analysis shows that manufacturers/wholesalers/retailers were not raising prices as fast as the import parity price was rising. That is, sellers delayed increasing prices such that prices were consistently below what import parity pricing indicated for most of this period (see chart 5). Normally the import parity price should trade below the retail price given margins need to be added. This indicates the limitations in using import parity prices when global prices are highly volatile as has been the case for the last 12 months.
- While based on valid assumptions, the costs we have used for importing (freight, insurance etc) are theoretical and may differ from actual costs.

Chart 6. DAP price comparison: ANZ import parity price vs retail price in SE Australia

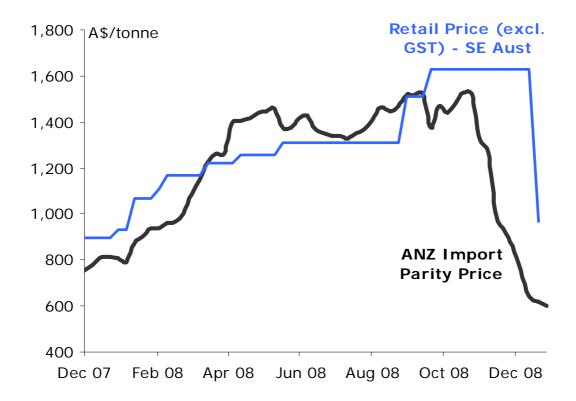
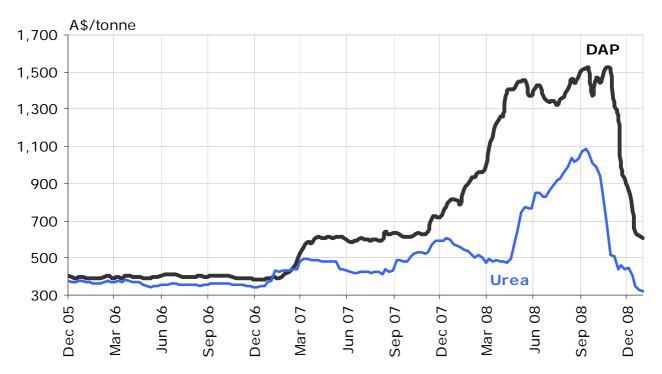




Table 2. ANZ Calculated Import Parity Prices – last 2 years

| UREA                             | Jan<br>07 | Feb<br>07 | Mar<br>07 | Apr<br>07 | May<br>07 | Jun<br>07 | Jul<br>07 | Aug<br>07 | Sep<br>07 | Oct<br>07 | Nov<br>07 | Dec<br>07 |
|----------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Month<br>Ending Price<br>(\$A/t) | 432       | 479       | 485       | 479       | 430       | 428       | 425       | 434       | 484       | 520       | 593       | 573       |
| Monthly<br>Change                |           | 11%       | 1%        | -1%       | -10%      | 0%        | -1%       | 2%        | 12%       | 7%        | 14%       | -3%       |
| UREA                             | Jan<br>08 | Feb<br>08 | Mar<br>08 | Apr<br>08 | May<br>08 | Jun<br>08 | Jul<br>08 | Aug<br>08 | Sep<br>08 | Oct<br>08 | Nov<br>08 | Dec<br>08 |
| Month<br>Ending Price<br>(\$A/t) | 514       | 477       | 484       | 641       | 766       | 826       | 962       | 1032      | 986       | 514       | 439       | 318       |
| Monthly<br>Change                | -10%      | -7%       | 1%        | 32%       | 20%       | 8%        | 16%       | 7%        | -4%       | -48%      | -15%      | -28%      |
|                                  |           |           |           |           |           |           |           |           |           |           |           |           |
| DAP                              | Jan<br>07 | Feb<br>07 | Mar<br>07 | Apr<br>07 | May<br>07 | Jun<br>07 | Jul<br>07 | Aug<br>07 | Sep<br>07 | Oct<br>07 | Nov<br>07 | Dec<br>07 |
| Month<br>Ending Price<br>(\$A/t) | 417       | 524       | 602       | 611       | 602       | 605       | 593       | 632       | 612       | 628       | 719       | 813       |
| Monthly<br>Change                |           | 26%       | 15%       | 2%        | -1%       | 0%        | -2%       | 7%        | -3%       | 2%        | 15%       | 13%       |
| DAP                              | Jan<br>08 | Feb<br>08 | Mar<br>08 | Apr<br>08 | May<br>08 | Jun<br>08 | Jul<br>08 | Aug<br>08 | Sep<br>08 | Oct<br>08 | Nov<br>08 | Dec<br>08 |
| Month<br>Ending Price<br>(\$A/t) | 936       | 1005      | 1260      | 1442      | 1372      | 1352      | 1369      | 1470      | 1468      | 1521      | 925       | 603       |
| Monthly<br>Change                | 15%       | 7%        | 25%       | 14%       | -5%       | -1%       | 1%        | 7%        | 0%        | 4%        | -39%      | -35%      |

Chart 7. ANZ Calculated Import Parity Prices – last 3 years





## **Contacts**

| ANZ Economics & Markets Research     |   |                 |  |  |  |  |
|--------------------------------------|---|-----------------|--|--|--|--|
| 71112 200110111100 a Mai             | NOTO NOSCAL GIT   |                 |  |  |  |  |
| Saul Eslake                          | Chief Economist   | +61 3 9273 6251 | Saul.Eslake@anz.com                            |  |  |  |
| Fiona Allen                          | Business Manager  | +61 3 9273 6224 | Fiona.Allen@anz.com                            |  |  |  |
| Australian Economics and             | d Interest Rates Research                                     |                 |  |  |  |  |
| Warren Hogan                         | Head of Australian Economics and Interest Rates Research      | +61 2 9227 1562 | Warren.Hogan@anz.com                           |  |  |  |
| Katie Dean                           | Senior Economist  | +61 3 9273 1381 | Katie.Dean@anz.com                             |  |  |  |
| Riki Polygenis                       | Economist   | +61 3 9273 4060 | Riki.Polygenis@anz.com                         |  |  |  |
| Dr. Alex Joiner                      | Economist   | +61 3 9273 6123 | Alex.Joiner@anz.com                            |  |  |  |
| Global Markets Credit Re             | search  |                 |  |  |  |  |
| Jason Hill                           | Global Markets Credit Analyst                                 | 0434 312 356    | Jason.Hill@anz.com                             |  |  |  |
| Commodition and Indust               | wy Doogough   |                 |  |  |  |  |
| Commodities and Industry Mark Pervan | Head of Commodities Research                                  | +61 3 9273 3716 | Mark.Pervan@anz.com                            |  |  |  |
| Julie Toth                           | Senior Economist  | +61 3 9273 6252 | Julie.Toth@anz.com                             |  |  |  |
| Doug Whitehead                       | Soft Commodity Strategist                                     | +61 3 9273 6684 | Doug.Whitehead@anz.com                         |  |  |  |
| Paul Deane                           | Rural Economist   | +61 3 9273 6295 | Paul.Deane@anz.com                             |  |  |  |
| Paul Dealle                          | Rulai Economist   | +01 3 92/3 0293 | <u>Paul. Dealle@aliz.com</u>                   |  |  |  |
| Property and Financial S             | ystem Research  |                 |  |  |  |  |
| Paul Braddick                        | Head of Property and Financial System Research                | +61 3 9273 5987 | Paul.Braddick@anz.com                          |  |  |  |
| Ange Montalti                        | Senior Economist  | +61 3 9273 6288 | Ange.Montalti@anz.com                          |  |  |  |
| Dr. Alex Joiner                      | Economist   | +61 3 9273 6123 | Alex.Joiner@anz.com                            |  |  |  |
| Stephanie Wayne                      | Research Analyst  | +61 3 9273 4075 | Stephanie.Wayne@anz.com                        |  |  |  |
| Foreign Exchange and In              | ternational Economics Research                                |                 |  |  |  |  |
| Amy Auster                           | Head of Foreign Exchange and International Economics Research | +61 3 9273 5417 | Amy.Auster@anz.com                             |  |  |  |
| Tony Morriss                         | Senior Currency Strategist                                    | +61 2 9226 6757 | Tony.Morriss@anz.com                           |  |  |  |
| Amber Rabinov                        | Economist   | +61 3 9273 4853 | Amber.Rabinov@anz.com                          |  |  |  |
| Foreign Exchange and In              | aterest Rates Research (London)                               |                 |  |  |  |  |
| Tim Riddell                          | Currency and Interest Rate Strategist                         |                 | Tim.Riddell@anz.com                            |  |  |  |
| A.1 E                                | h (6)   |                 |  |  |  |  |
| Asian Economics Research             |   | . 4E 4410 7000  | Doub Cruonwold@onz.com                         |  |  |  |
| Paul Gruenwald                       | Chief Economist, Asia   | +65 6419 7902   | Paul.Gruenwald@anz.com                         |  |  |  |
| Ivy Tan                              | Associate Director, Credit Research                           | +65 6419 7914   | Ivy.Tan@anz.com Tamara Handaraan@anz.com       |  |  |  |
| Tamara Henderson                     | Director, Currency & Rates Strategy                           | +65 6216 1845   | Tamara.Henderson@anz.com                       |  |  |  |
| Joshua Saldanha                      | Associate Director, Macroeconomics                            | +65 6216 1838   | Joshua.Saldanha@anz.com WeiLiang.Chang@anz.com |  |  |  |
| Chang Wei Liang                      | Research Intern, Markets Asia                                 | +65 6216 1838   | weiLiang.Chang@anz.com                         |  |  |  |
| New Zealand Economics                | Research (Wellington)   |                 |  |  |  |  |
| Cameron Bagrie                       | Chief Economist, New Zealand                                  | +64 4 802 2212  | Cameron.Bagrie@anz.com                         |  |  |  |
| Khoon Goh                            | Senior Economist  | +64 4 802 2357  | Khoon.Goh@anz.com                              |  |  |  |
| Philip Borkin                        | Economist   | +64 4 802 2199  | Philip.Borkin@anz.com                          |  |  |  |
| Steve Edwards                        | Economist   | +64 4 802 2217  | Steve.Edwards@anz.com                          |  |  |  |
| Kevin Wilson                         | Rural Economist   | +64 4 802 2361  | wilsonk1@anz.com                               |  |  |  |
| David Croy                           | Interest Rate Strategist                                      | +64 4 802 2286  | David.Croy@anz.com                             |  |  |  |
| Research and Informatio              | on Services   |                 |  |  |  |  |
| Marilla Rough                        | Senior Information Officer                                    | +61 3 9273 6263 | Marilla.Rough@anz.com                          |  |  |  |
| Manesha Jayasuriya                   | Publications Coordinator                                      | +61 3 9273 4121 | Manesha.Jayasuriya@anz.com                     |  |  |  |
|                                      |   |                 |  |  |  |  |



### **Important Notice**

Australia and New Zealand Banking Group Limited is represented in:

AUSTRALIA by:

Australia and New Zealand Banking Group Limited ABN 11 005 357 522

100 Queen Street, Melbourne, Victoria, 3000, Australia

Telephone +61 3 9273 6224 Fax +61 3 9273 5711

UNITED KINGDOM by:

Australia and New Zealand Banking Group Limited

ABN 11 005 357 522

40 Bank Street, Canary Wharf, London, E14 5EJ, United Kingdom

Telephone +44 20 3229 2121 Fax +44 20 7378 2378

UNITED STATES OF AMERICA by:

ANZ Securities, Inc. (Member of NASD and SIPC)

6th Floor 1177 Avenue of the Americas

New York, NY 10036, United States of America

Tel: +1 212 801 9160 Fax: +1 212 801 9163

NEW ZEALAND by:

**ANZ National Bank Limited** 

Level 7, 1-9 Victoria Street, Wellington, New Zealand

Telephone +64 4 802 2000

This document ("document") is distributed to you in Australia and the United Kingdom by Australia and New Zealand Banking Group Limited ABN 11 005 357 522 ("ANZ") and in New Zealand by ANZ National Bank Limited ("ANZ NZ"). ANZ holds an Australian Financial Services licence no. 234527 and is authorised in the UK by the Financial Services Authority ("FSA").

This document is being distributed in the United States by ANZ Securities, Inc. ("ANZ S") (an affiliated company of ANZ), which accepts responsibility for its content. Further information on any securities referred to herein may be obtained from ANZ S upon request. Any US person(s) receiving this document and wishing to effect transactions in any securities referred to herein should contact ANZ S, not its affiliates.

This document is being distributed in the United Kingdom by ANZ for the information of its market counterparties and intermediate customers only. It is not intended for and must not be distributed to private customers. In the UK, ANZ is regulated by the FSA. 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 FSA.

This document is issued on the basis that it is only for the information of the particular person to whom it is provided. This document may not be reproduced, distributed or published by any recipient for any purpose. This document does not take into account your personal needs and financial circumstances. Under no circumstances is this document to be used or considered as an offer to sell, or a solicitation of an offer to buy.

In addition, from time to time ANZ, ANZ NZ, ANZ S, their affiliated companies, or their respective associates and employees may have an interest in any financial products (as defined by the Australian Corporations Act 2001), securities or other investments, directly or indirectly the subject of this document (and may receive commissions or other remuneration in relation to the sale of such financial products, securities or other investments), or may perform services for, or solicit business from, any company the subject of this document. If you have been referred to ANZ, ANZ NZ, ANZ S or their affiliated companies by any person, that person may receive a benefit in respect of any transactions effected on your behalf, details of which will be available upon request.

The information herein has been obtained from, and any opinions herein are based upon, sources believed reliable. The views expressed in this document accurately reflect the author's personal views, including those about any and all of the securities and issuers referred to herein. The author however makes no representation as to its accuracy or completeness and the information should not be relied upon as such. All opinions and estimates herein reflect the author's judgement on the date of this document and are subject to change without notice. No part of the author's compensation was, is or will directly or indirectly relate to specific recommendations or views expressed about any securities or issuers in this document. ANZ, ANZ NZ, ANZ S, their affiliated companies, their respective directors, officers, and employees 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 the contents of and/or any omissions from this communication except where a Liability is made non-excludable by legislation.

Where the recipient of this publication conducts a business, the provisions of the Consumer Guarantees Act 1993 (NZ) shall not apply.