

## NEW ZEALAND ECONOMICS ANZ TRUCKOMETER

14 January 2016

### CONTACT:

**Sharon Zollner**  
Senior Economist  
Telephone: +64 9 357 4094  
E-mail: sharon.zollner@anz.com

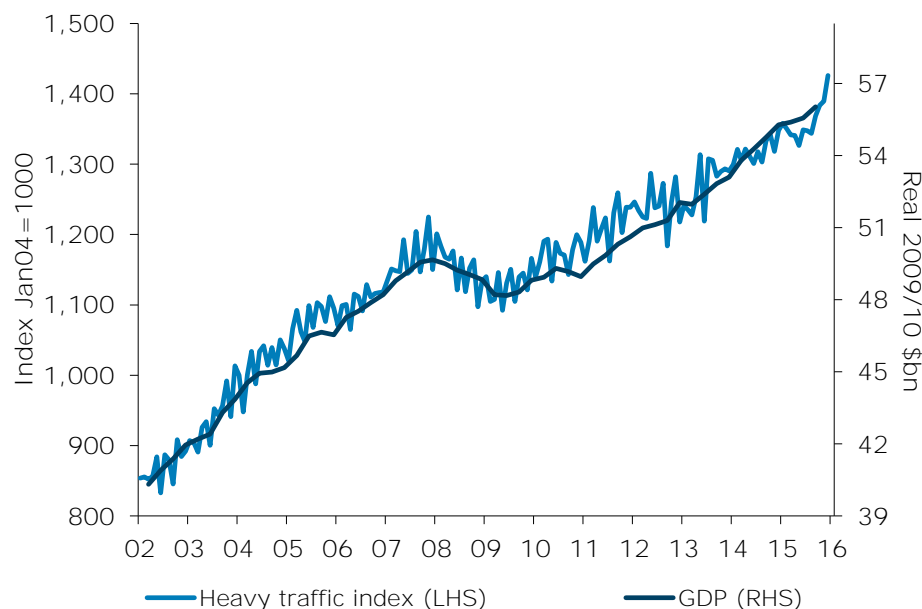
The next issue of the ANZ *Truckometer* is scheduled for release on 9 February 2016 at 10am.

## NO HOLIDAY FOR TRUCKIES

### KEY POINTS

- **Santa may have swapped his sleigh for a few 44-tonners this year. The Heavy Traffic Index<sup>1</sup> lifted 2.6% in December, completing a very strong quarter, while the Light Traffic Index<sup>2</sup>, which leads growth in the economy by six months, increased 1% m/m.<sup>3</sup>**
- Q3 GDP growth at 0.9% was very close to the prediction of the Heavy Traffic Index. **The Heavy Traffic Index flags further acceleration and suggests that Q4 GDP growth could be well north of 1% q/q.** The strong upward trend in the Light Traffic Index suggests good momentum in the economy as we kick off the New Year.
- **The New Zealand economy clearly accelerated in the second half of last year.** The non-dairy agriculture, construction, housing, services and tourism sectors – collectively a large proportion of the economy – continue to perform well. **Signs are good for the coming year.**
- **The main risks to growth in 2016 emanate from offshore**, with a rough start to 2016 for global markets highlighting vulnerabilities. The Truckometer indexes will give an early heads-up on any local impacts.

### GDP AND THE ANZ HEAVY TRAFFIC INDEX



Source: ANZ, NZ Transport Agency, Statistics NZ

<sup>1</sup> **The ANZ Heavy Traffic Index** comprises flows of vehicles weighing more than 3.5 tonnes (primarily trucks) on 11 selected roads around NZ. It is contemporaneous with GDP growth.

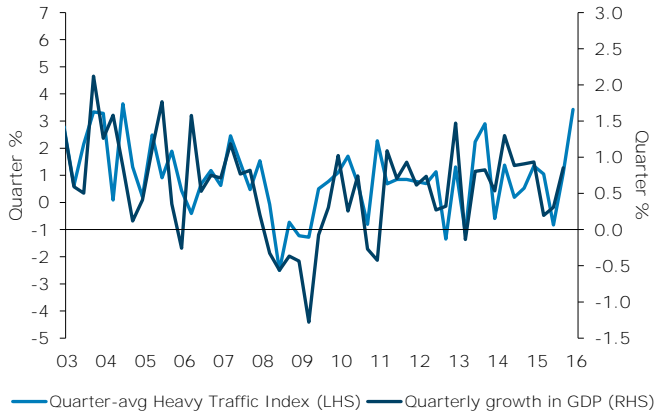
<sup>2</sup> **The ANZ Light Traffic Index** is made up of light or total traffic flows (primarily cars and vans) on 10 selected roads around the country. It gives a six month lead on GDP growth in normal circumstances (but cannot predict sudden adverse events such as the Global Financial Crisis).

<sup>3</sup> Note **the weights in the two Truckometer indexes have been re-optimised** due to historical GDP revisions (an annual process), meaning historical revisions are a little larger than is typical.

# ANZ TRUCKOMETER

The ANZ Heavy Traffic Index is a timely, concurrent GDP indicator. It rose 2.6% in the month of December (seasonally adjusted – sa), suggesting GDP growth of around 1% to 1.5% q/q in the December quarter (figure 1). Annual growth in the index continues to rise and is now running at 4.8% (figure 2).

**FIGURE 1. ANZ HEAVY TRAFFIC INDEX AND GDP GROWTH**



Source: ANZ, NZ Transport Agency, Statistics NZ

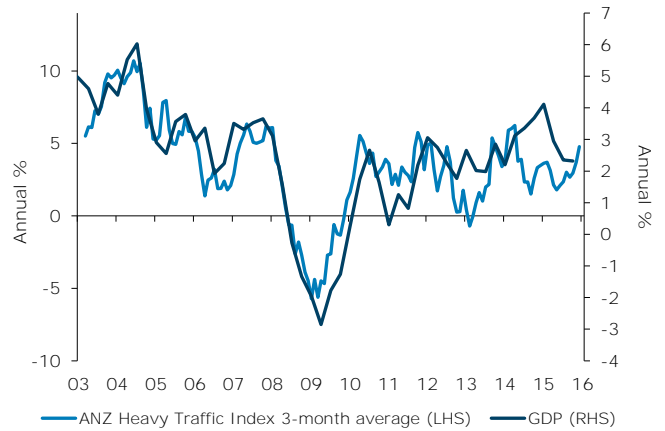
In December, traffic flows rose on every road in both the Heavy and Light Traffic Indexes (11 and 10 roads respectively), once seasonally adjusted. This is only the third such occurrence since the indexes began in 2002.

The Light Traffic Index gives a 6-month lead on the economy and is best interpreted as a measure of momentum. It rose 1.0% in December (sa) (figure 3), boding well for economic momentum as we kick off the New Year. The level of light traffic has boomed in the last two years after plateauing for a long period following the Global Financial Crisis (figure 4).

The Truckometer indexes confirm that the economy accelerated in the second half of 2015. The non-dairy agriculture, construction, housing, services and tourist sectors are performing very well.

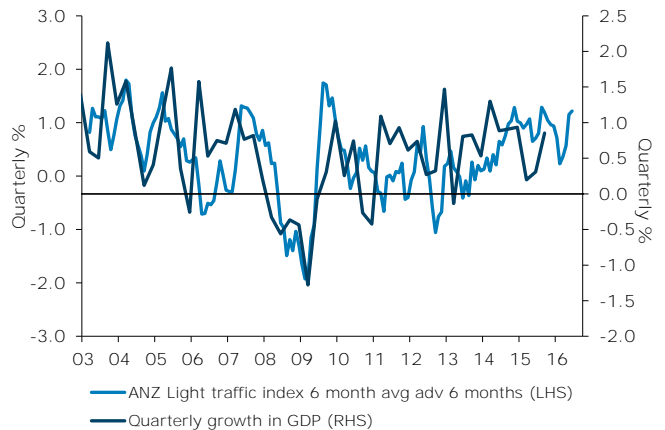
As we start 2016, global risks appear to be intensifying, and we are watching developments closely. The Truckometer will be a useful indicator to watch to get an early steer on how global ructions are impacting activity.

**FIGURE 2. ANZ HEAVY TRAFFIC INDEX AND ANNUAL GDP GROWTH**



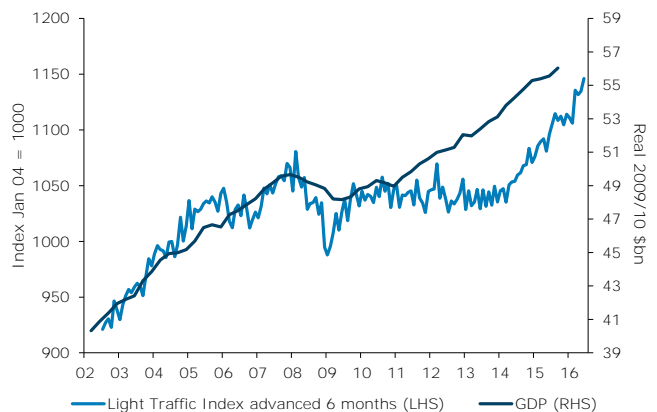
Source: ANZ, NZ Transport Agency, Statistics NZ

**FIGURE 3. ANZ LIGHT TRAFFIC INDEX (6-MONTH AVERAGE, ADV. 6 MONTHS) AND GDP GROWTH**



Source: ANZ, NZ Transport Agency, Statistics NZ

**FIGURE 4. ANZ LIGHT TRAFFIC INDEX (ADVANCED 6 MONTHS) AND REAL GDP**



Source: ANZ, NZ Transport Agency, Statistics NZ

# ANZ TRUCKOMETER

## ABOUT THE ANZ TRUCKOMETER

**The ANZ Truckometer is a set of two economic indicators derived using traffic volume data from around the country.** Traffic flows are a real-time and real-world proxy for economic activity – particularly for the New Zealand economy, where a large proportion of freight is moved by road. It represents an extremely timely barometer of economic momentum. **The ANZ Heavy Traffic Index shows a strong contemporaneous relationship to GDP, while the ANZ Light Traffic Index has a six month lead on activity as measured by GDP.**

**Using statistical techniques we optimise the ANZ Truckometer indexes to map to quarterly GDP growth.** A simple average of traffic on all roads, as calculated by the NZ Transport Agency for its own purposes, is a decent economic indicator in its own right. However, optimisation can strip out a good deal of the noise – many of the traffic series are highly volatile, have level shifts, or have other undesirable statistical properties. The ANZ Light and Heavy Traffic Indexes select roads based on their usefulness for explaining quarterly growth in GDP – in the same three month period for heavy traffic, or six months later for light traffic.

Specific adjustments for short-term traffic disruptions and careful treatment of missing data also help to extricate the signal from the noise. Because the information value of particular traffic flows does change over time, the weights placed on the individual traffic series are permitted to slowly evolve over time. **The weight on any given traffic series is limited to 0.25** in order to make the indexes more robust to localised events.

The contemporaneous relationship between heavy traffic and GDP is not surprising – road user charges revenue data have long been used as an economic indicator. Trucks are moving produce, after all. But the lead to GDP provided by the light traffic flows is more surprising. It would appear that **willingness to buy and drive a car is the ultimate measure of “money-where-your-mouth-is” consumer confidence.** This confidence, or lack of it, is then reflected in other spending, hiring and investment decisions that are ultimately captured in production GDP six months later. Service vehicles (courier vans, for example), which are also captured in this data, may also be a leading economic indicator.

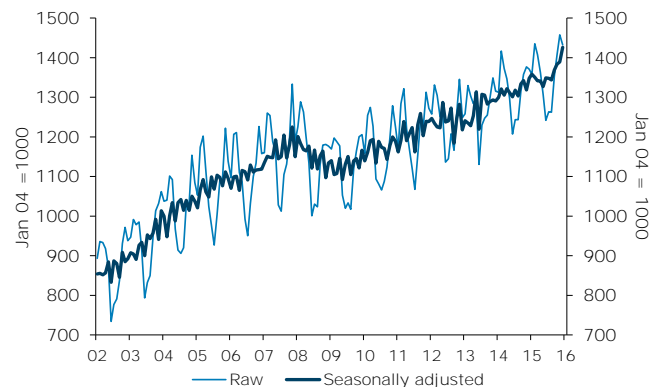
**The ANZ Truckometer indexes (and particularly the Light Traffic Index) are best interpreted as indicators of momentum and turning points in the economy** rather than spot predictors of GDP

outturns. But the two indexes are remarkable indicators – the Heavy Traffic Index for its close match to GDP, as well as its timeliness (available less than two weeks after the period in question), and the Light Traffic Index for its valuable and unusual six month lead to GDP.

*Technical notes on how the ANZ Truckometer is produced were included in the initial release on 10 April 2012, available on the ANZ website or on request. The indexes’ data history (subject to revision) is also available on request.*

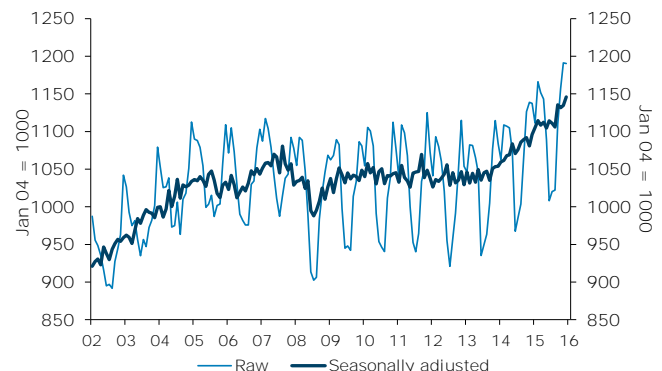
	Light Traffic Index		Heavy Traffic Index	
	Index Jan 04=1000	Monthly % chg	Index Jan 04=1000	Monthly % chg
Dec-14	1096	1.4	1348	2.2
Jan-15	1105	0.8	1358	0.8
Feb-15	1115	0.9	1350	-0.6
Mar-15	1109	-0.5	1342	-0.6
Apr-15	1112	0.3	1341	-0.1
May-15	1105	-0.7	1327	-1.1
Jun-15	1114	0.9	1349	1.7
Jul-15	1111	-0.3	1348	-0.1
Aug-15	1106	-0.5	1344	-0.3
Sep-15	1136	2.7	1369	1.8
Oct-15	1132	-0.3	1384	1.1
Nov-15	1135	0.3	1389	0.4
Dec-15	1146	1.0	1426	2.6

**FIGURE 5. ANZ HEAVY TRAFFIC INDEX: RAW VS SA**



Source: ANZ, NZ Transport Agency

**FIGURE 6. ANZ LIGHT TRAFFIC INDEX: RAW VS SA**



Source: ANZ, NZ Transport Agency



## 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

**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](http://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 64-9 357 4094, e-mail [nzeconomics@anz.com](mailto:nzeconomics@anz.com), <http://www.anz.co.nz>

