

## NEW ZEALAND ECONOMICS ANZ TRUCKOMETER

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### CONTACT:

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

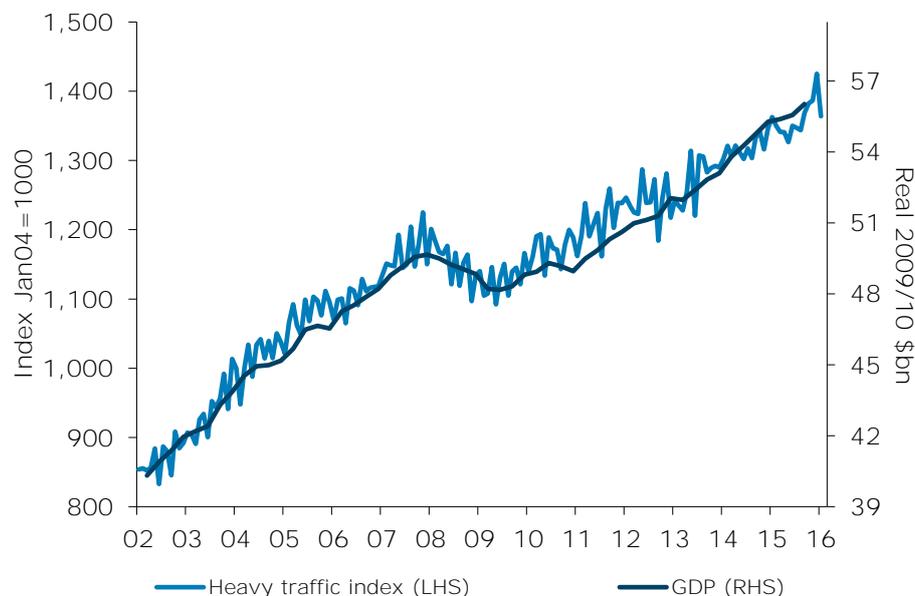
The next issue of the ANZ *Truckometer* is scheduled for release on 8 March 2016 at 10am.

## TAKING A BREATH

### KEY POINTS

- **The two Truckometer indexes more than unwound their December surge in January, returning back to trend. The Heavy Traffic Index<sup>1</sup> fell 4.3%, while the Light Traffic Index<sup>2</sup>, which leads growth in the economy by six months, fell 1.4% m/m.**
- **The Heavy Traffic Index suggests that GDP growth in 2015 Q4 could be well north of 1% q/q** but the January data provides an early hint that we may well see some recoil in Q1.
- That said, **the Light Traffic Index still has a strong upward trend, suggesting good momentum in the economy as we kick off the coming year.**
- **We are assuming the falls in the two traffic indexes are primarily monthly volatility.** Nonetheless, we can't be complacent; traffic volumes provide real-time economic signals.
- **Global financial market gyrations highlight the fact that the main risks to economic growth emanate from offshore.** We will be watching the Truckometer indexes closely for an early heads-up on any impact on domestic activity.

### 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).

# ANZ TRUCKOMETER

The ANZ Heavy Traffic Index is a timely, concurrent GDP indicator. It fell 4.3% in the month of January (seasonally adjusted – sa), its largest monthly fall since mid-2013. The quarterly index suggests GDP growth of around 1% to 1.5% q/q in the December quarter (figure 1), but such a large monthly fall is not the most promising start to Q1. Annual growth in the index dipped to 3.7% (figure 2).

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



Source: ANZ, NZ Transport Agency, Statistics NZ

In January, traffic flows fell on every road in the Heavy Traffic Index (11) and in all but one of 10 roads in the Light Traffic Index (seasonally adjusted).

The Light Traffic Index gives a 6-month lead on the economy and is best interpreted as a measure of momentum. It fell 1.4% in January (sa), but maintains a strong upward trend (figure 4), boding well for economic momentum as we kick off the New Year. The levels relationship with GDP is not nearly as tight as for the Heavy Traffic Index.

This year has started poorly for the two indexes but we don't like to place too much weight on one monthly read. We are assuming the falls are primarily monthly volatility.<sup>3</sup> Nonetheless, we can't be complacent. Traffic volumes provide real-time economic signals, as evidenced by how well the Truckometer indexes picked the acceleration across the economy in the second half of 2015. The nuances need to be respected. It's been a rough start to the year for the global economy. The Truckometer will be a useful, timely indicator of how global ructions and commodity price falls are impacting on activity here at home.

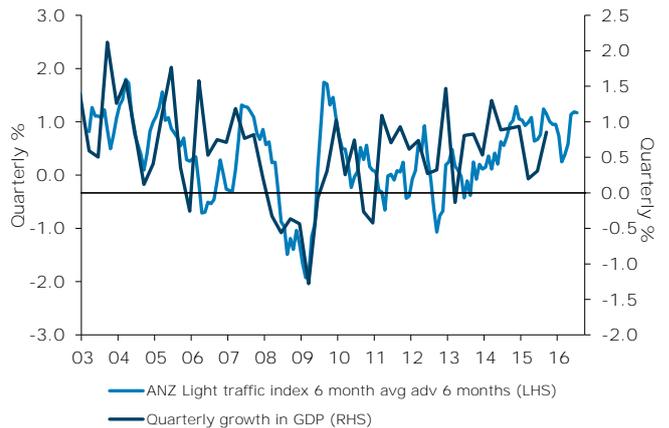
<sup>3</sup> February data may well also be affected (primarily negatively, at least in terms of heavy traffic) by the new 'Mondayisation' of Waitangi Day, but as the now-guaranteed public holiday will impact real activity as well as traffic we will not adjust for this.

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



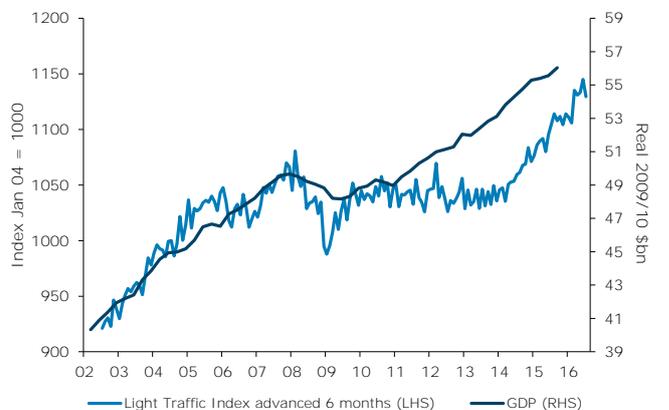
Source: ANZ, NZ Transport Agency, Statistics NZ

**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.

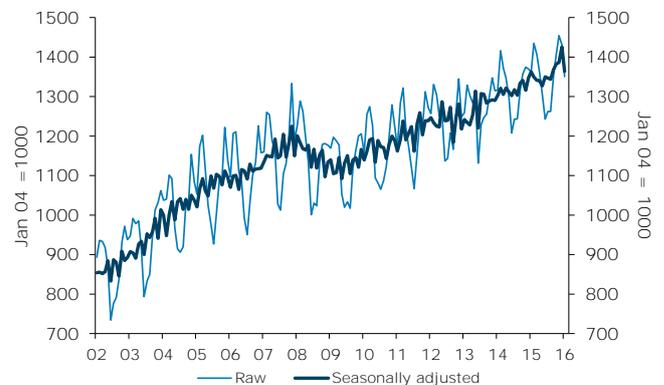
**The ANZ Truckometer indexes (and particularly the Light Traffic Index) are best interpreted as indicators of momentum and turning points in the economy** rather than spot predictors of GDP

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.*

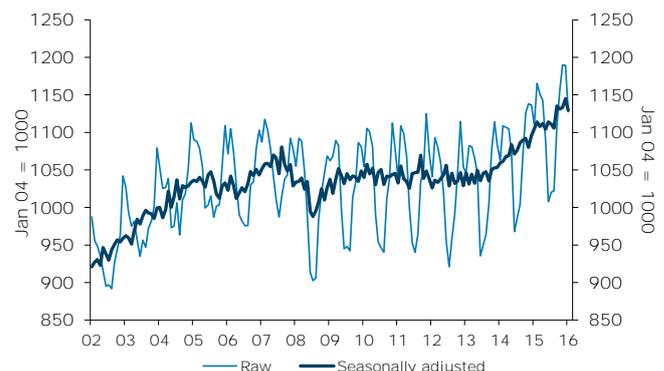
	Light Traffic Index		Heavy Traffic Index	
	Index Jan 04=1000	Monthly % chg	Index Jan 04=1000	Monthly % chg
Jan-15	1105	0.9	1362	1.2
Feb-15	1114	0.8	1350	-0.9
Mar-15	1108	-0.5	1341	-0.6
Apr-15	1112	0.3	1341	0.0
May-15	1104	-0.7	1327	-1.0
Jun-15	1114	0.9	1350	1.8
Jul-15	1111	-0.3	1347	-0.2
Aug-15	1106	-0.5	1344	-0.2
Sep-15	1135	2.7	1368	1.8
Oct-15	1131	-0.4	1383	1.0
Nov-15	1133	0.2	1386	0.3
Dec-15	1145	1.0	1425	2.8
Jan-16	1129	-1.4	1364	-4.3

**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

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