

## NEW ZEALAND ECONOMICS ANZ TRUCKOMETER

8 September 2015

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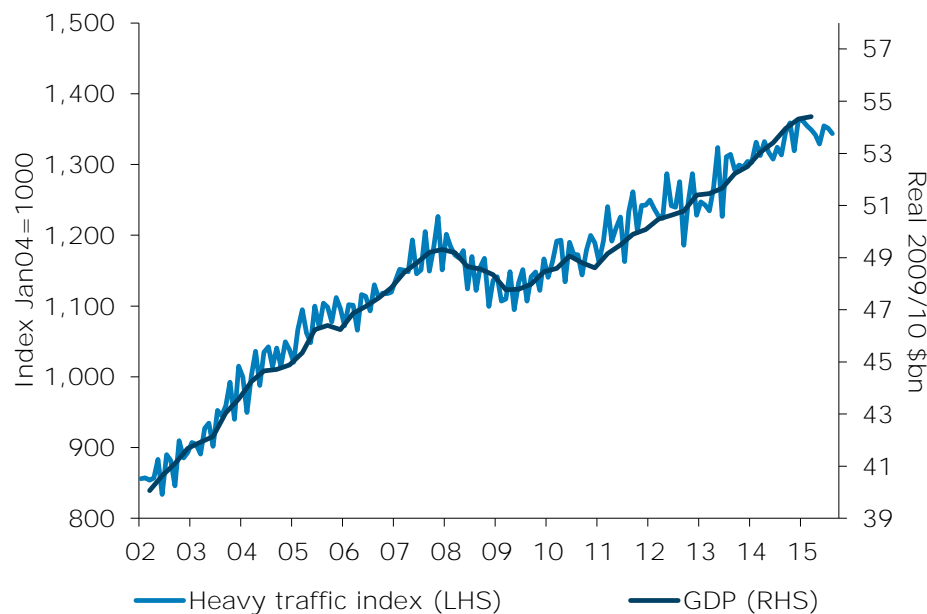
The next issue of the ANZ *Truckometer* is scheduled for release on 8 October 2015 at 10am.

## POTHoles

### KEY POINTS

- **The ANZ Truckometer is a measure of economic activity using real-time traffic data from around New Zealand.** It is timely and contains hard activity data as opposed to measuring sentiment.
- **The ANZ Heavy Traffic Index fell 0.6% in August.**<sup>1</sup> It has declined in 7 of the last 8 months, but the falls have been mild and the level is holding up. A loss of momentum is certainly now apparent, consistent with a weaker economy, but the index is not capitulating as it did in 2008.
- **The ANZ Light Traffic Index typically leads GDP by six months.**<sup>2</sup> **It also fell 0.6% in August** and sits about where it was in January. This year has seen the cessation of the strong upward trend that had been evident since mid-2013.
- **The Heavy Traffic Index suggests a weak GDP growth outturn in Q2, and has declined in the two subsequent months, which is not a great indicator for Q3 either.** The Light Traffic Index is more upbeat about growth in the near-term but growth in this index is now rolling over.

### 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.

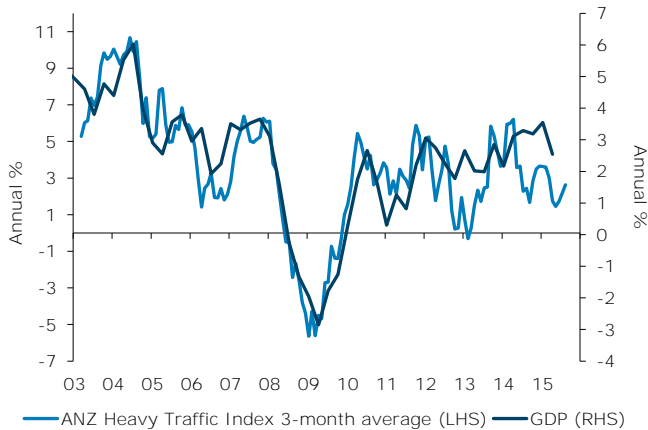
<sup>2</sup> **The ANZ Light Traffic Index** is made up of light or total traffic flows (primarily cars and vans) on 10 selected roads around the country. It gives a six month lead on GDP growth in normal circumstances (but cannot predict sudden adverse events such as the Global Financial Crisis).

# ANZ TRUCKOMETER

## The two Truckometer indexes fell in August.

The ANZ Heavy Traffic Index is concurrent with GDP. It fell 0.6% in August (seasonally adjusted – sa), on top of a 0.3% fall in July. The index has fallen in 7 of the past 8 months, but the falls have been mild, and it is up 0.7% in the last three months versus the three months prior due to a decent lift in June, and 2.6% y/y (figure 1). It suggests the economy was fairly flat in the June quarter, and falls in both July and August suggest we'll need to put our foot down in September if Q3 growth is to look much better (figure 2). Whether we are in a pothole or a ditch should become clearer in the next couple of months.

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



Source: ANZ, NZ Transport Agency, Statistics NZ

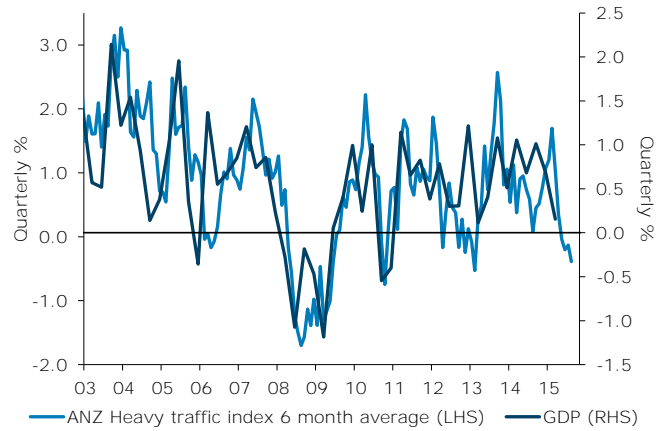
Traffic flows fell on eight roads in the Heavy Traffic Index in August (sa), and rose on three.

The Light Traffic Index gives a 6-month lead on the economy. Its long lead means it gives a take on where the economy is headed in the absence of any "shocks" in the meantime. It also fell 0.6% in August (sa) and is up just 0.2% on a smoothed 3m/3m basis. It suggests strong momentum over the next few months (figure 3) but we are discounting that, given all that has occurred since those strong numbers were observed.

After surging since mid-2013, the Light Traffic Index has now flattened out (figure 4), and is about where it was back in January. Traffic flows fell in August on six of ten roads in the index (sa).

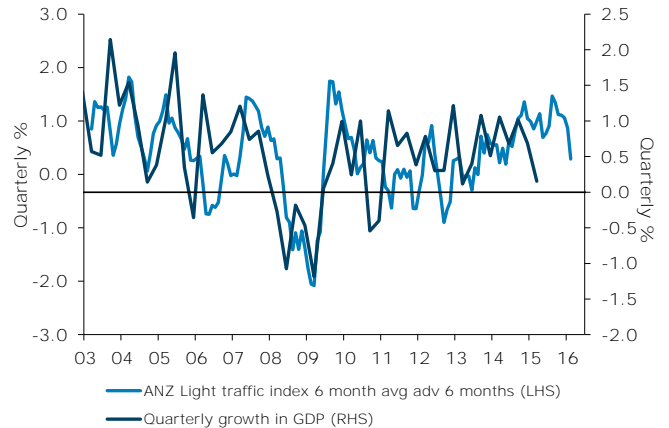
Like any indicator, the Truckometer indexes have their hits and misses. However, they are pretty adamant that the economy has slowed down markedly. We expect further cuts in the Official Cash Rate as this slowdown is corroborated by GDP growth considerably slower than the RBNZ forecast back in June (0.8% q/q in both Q2 and Q3).

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



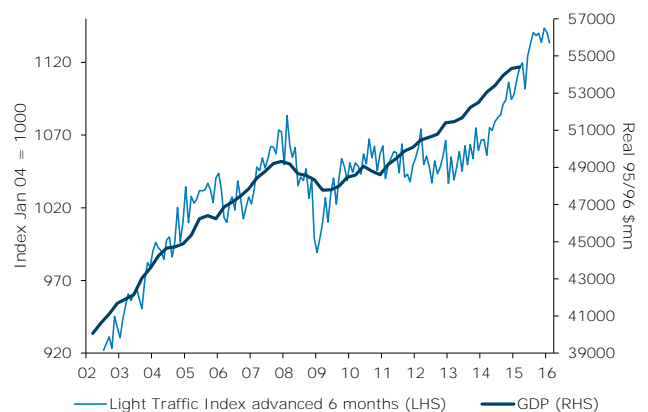
Source: ANZ, NZ Transport Agency, Statistics NZ

**FIGURE 3. ANZ LIGHT TRAFFIC INDEX AND GDP GROWTH**



Source: ANZ, NZ Transport Agency, Statistics NZ

**FIGURE 4. ANZ LIGHT TRAFFIC INDEX (6-MONTH AVERAGE, 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.

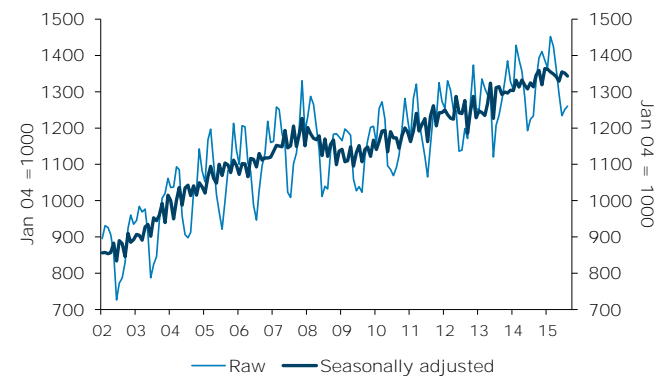
**The ANZ Truckometer indexes (and particularly the Light Traffic Index) are best interpreted as indicators of momentum and turning points in the economy** rather than spot predictors of GDP

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.*

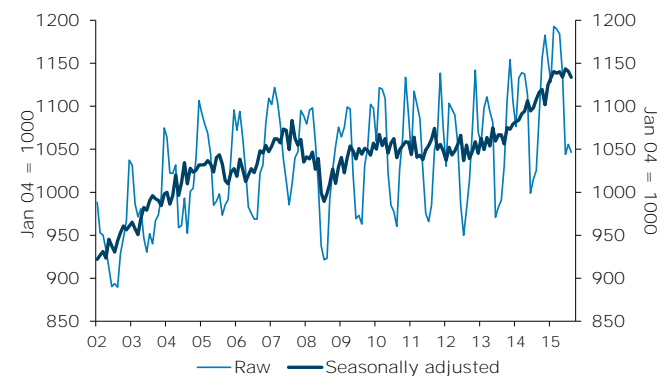
	Light Traffic Index		Heavy Traffic Index	
	Index Jan 04=1000	Monthly % chg	Index Jan 04=1000	Monthly % chg
Aug-14	1108	0.9	1313	-0.9
Sep-14	1116	0.7	1345	2.4
Oct-14	1120	0.3	1359	1.0
Nov-14	1102	-1.6	1319	-2.9
Dec-14	1125	2.1	1364	3.4
Jan-15	1133	0.7	1362	-0.1
Feb-15	1140	0.7	1355	-0.5
Mar-15	1138	-0.2	1349	-0.4
Apr-15	1140	0.1	1342	-0.5
May-15	1134	-0.6	1329	-1.0
Jun-15	1144	0.9	1355	1.9
Jul-15	1140	-0.3	1351	-0.3
Aug-15	1134	-0.6	1344	-0.6

**FIGURE 4. ANZ HEAVY TRAFFIC INDEX: RAW VS SA**



Source: ANZ, NZ Transport Agency

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



Source: ANZ, NZ Transport Agency



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