

NEW ZEALAND ECONOMICS ANZ TRUCKOMETER

7 June 2016

CONTACT:

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

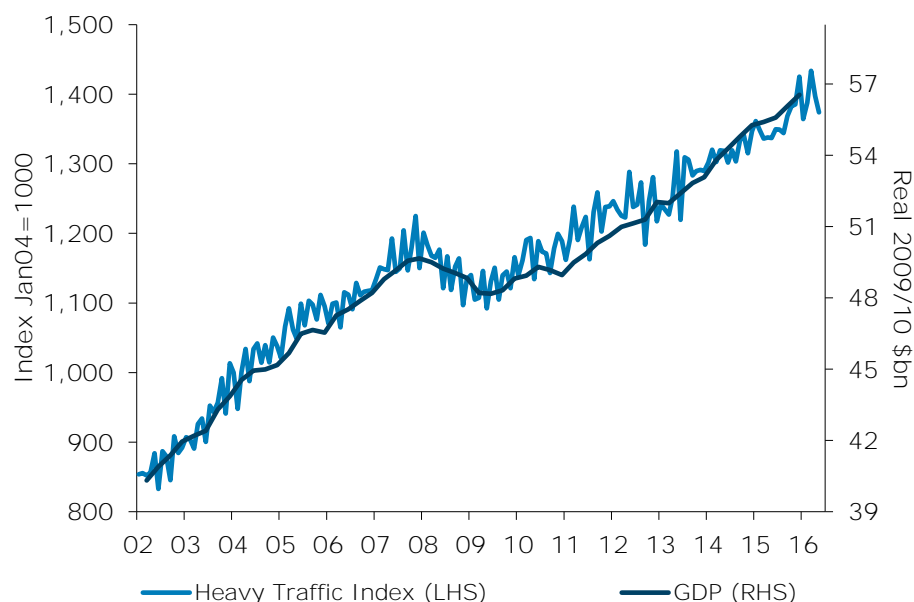
The next issue of the ANZ *Truckometer* is scheduled for release on 7 July 2016 at 10am.

TOUCHING THE BRAKE?

KEY POINTS

- **Both the Heavy Traffic Index and the Light Traffic Index fell in May.** We must be wary of reading too much into one month of data, particularly given extreme volatility of late, but it is probably fair to say the upward trend is no longer as conclusive as it was.
- **The Heavy Traffic Index¹ fell 1.7% (+0.6% 3m/3m) in May, while the Light Traffic Index², which leads growth in the economy by six months, fell 1.3% (+1.3% 3m/3m).**
- **Two consecutive falls so far in Q2 in the Heavy Traffic Index do not, on the face of it, bode particularly well for economic activity in the current quarter.**
- The strong upward trend in **the Light Traffic Index appears to have turned.** This bears watching too, though it is worth noting that the levels and annual growth in the index remain very strong, reflecting a period of surprisingly strong momentum in the economy.

GDP AND THE ANZ HEAVY TRAFFIC INDEX



Source: ANZ, NZ Transport Agency, Statistics NZ

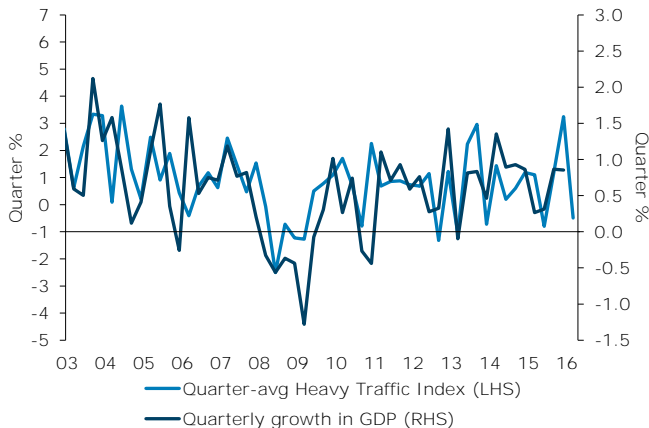
¹ **The ANZ Heavy Traffic Index** comprises flows of vehicles weighing more than 3.5 tonnes (primarily trucks) on 11 selected roads around NZ. It is contemporaneous with GDP growth.

² **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 1.7% in the month of May (seasonally adjusted – sa) on top of a 2.6% fall in April. This puts the upward trend under threat**, though recent volatility makes it hard to read. Though likely overstating the case the index suggests a softer quarterly GDP growth rate in Q1 than was seen at the end of last year (figure 1) and two consecutive falls mark a poor start to Q2. However, it is entirely possible a strong rebound in the June month will rescue the quarter. Time will tell.

FIGURE 1. QUARTERLY ANZ HEAVY TRAFFIC INDEX AND GDP GROWTH



Source: ANZ, NZ Transport Agency, Statistics NZ

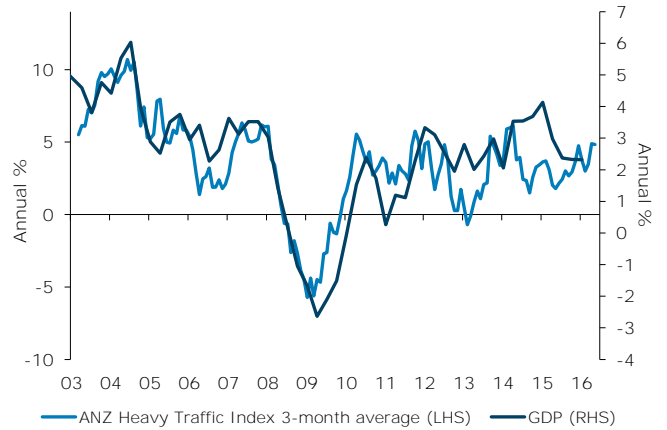
Annual growth in the Heavy Traffic Index was little changed at 4.8%, suggesting annual GDP growth in a 2-3% range (figure 2).

In April, traffic flows fell on 9 of 11 roads in the Heavy Traffic Index, and 7 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 1.3% in May (sa).** The recent rise in petrol prices may be a contributing factor. The index has had a very strong upward trend in recent years, so a pause for breath is not cause for alarm. However, we will keep an eye on it as a 'money where your mouth is' measure of consumer confidence.

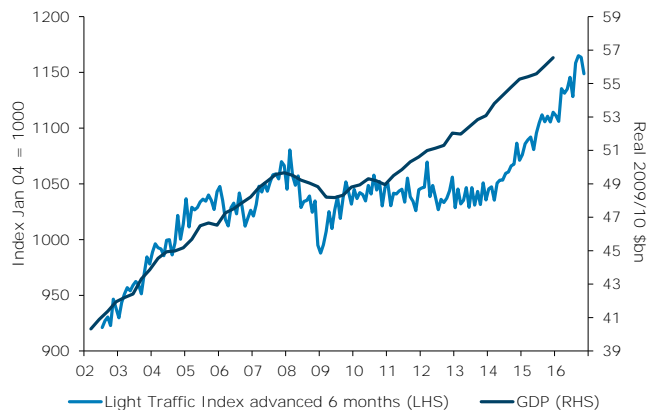
The New Zealand economy has put in a resilient performance in the face of challenges to the dairy sector in particular. Confidence surveys and spending have held up remarkably well. However, growth fuelled by debt is less sustainable than that backed by solid income growth. We will be watching our forward indicators such as the Truckometer closely for any sign the economy may be slowing for a turn.

FIGURE 2. ANZ HEAVY TRAFFIC INDEX AND ANNUAL GDP GROWTH



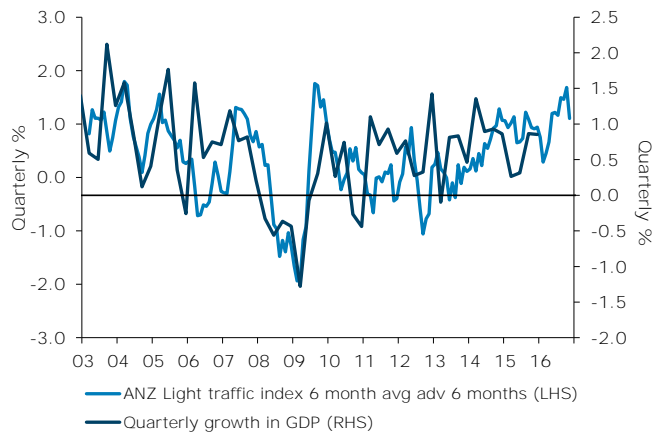
Source: ANZ, NZ Transport Agency, Statistics NZ

FIGURE 3. ANZ LIGHT TRAFFIC INDEX (ADVANCED 6 MONTHS) AND REAL GDP



Source: ANZ, NZ Transport Agency, Statistics NZ

FIGURE 4. ANZ LIGHT TRAFFIC INDEX (6-MONTH AVERAGE, ADV. 6 MONTHS) AND GDP GROWTH



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.

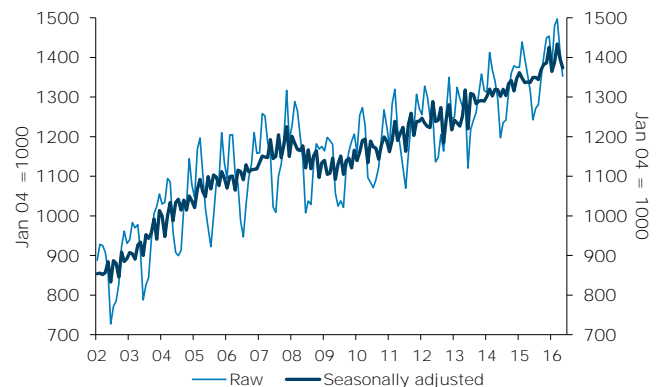
The contemporaneous relationship between heavy traffic and GDP is not surprising – road user charges revenue data have long been used as an economic indicator. Trucks are moving produce, after all. But the lead to GDP provided by the light traffic flows is more surprising. It would appear that **willingness 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

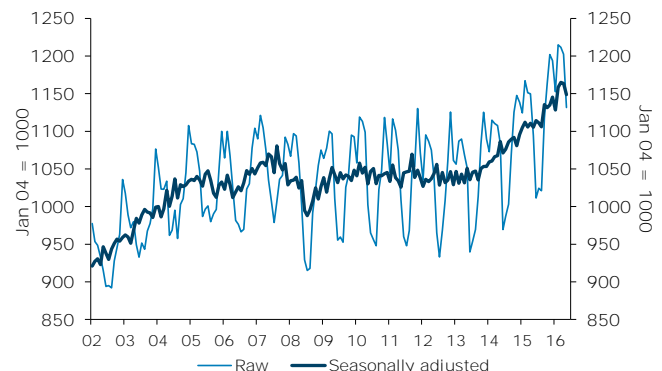
outturns. But the two indexes are remarkable indicators – the Heavy Traffic Index for its close match to GDP, as well as its timeliness (available less than two weeks after the period in question), and the Light Traffic Index for its valuable and unusual six month lead to GDP.

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
May-15	1105	-0.5	1337	0.0
Jun-15	1114	0.8	1350	0.9
Jul-15	1111	-0.3	1349	0.0
Aug-15	1106	-0.5	1344	-0.4
Sep-15	1135	2.7	1368	1.8
Oct-15	1131	-0.4	1383	1.0
Nov-15	1135	0.3	1385	0.2
Dec-15	1145	0.9	1425	2.9
Jan-16	1128	-1.5	1364	-4.3
Feb-16	1158	2.7	1388	1.7
Mar-16	1165	0.6	1434	3.3
Apr-16	1164	-0.1	1397	-2.6
May-16	1149	-1.3	1374	-1.7

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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