

## NEW ZEALAND ECONOMICS ANZ TRUCKOMETER

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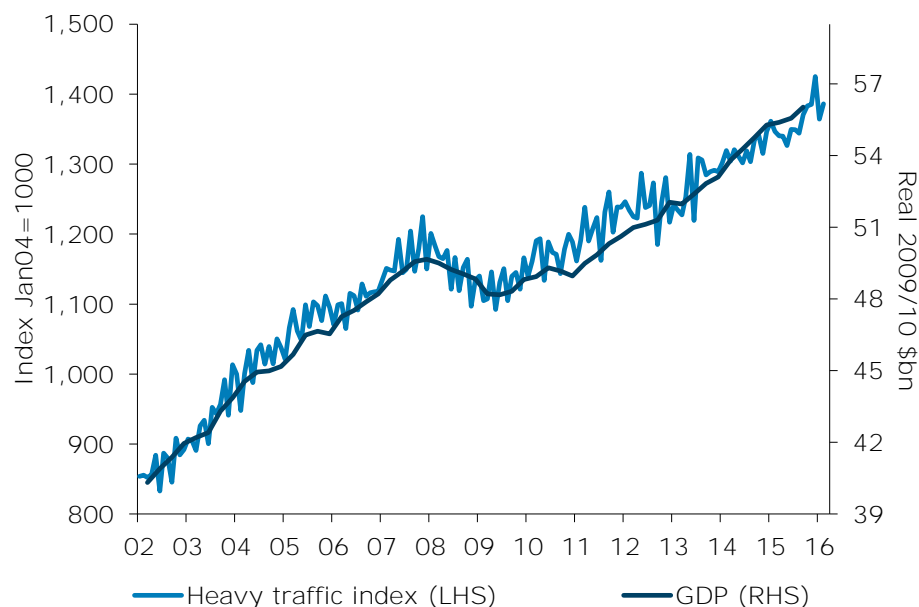
The next issue of the ANZ *Truckometer* is scheduled for release on 7 April 2016 at 10am.

## BACK TO WORK

### KEY POINTS

- **The two Truckometer indexes returned to their upward trends in February after marked falls the previous month. The Heavy Traffic Index<sup>1</sup> rose 1.6%, while the Light Traffic Index<sup>2</sup>, which leads growth in the economy by six months, lifted 2.0% m/m.**
- **The Heavy Traffic Index suggests that GDP growth was very strong in 2015 Q4** but with two months of data in, Q1 is looking considerably softer. GDP will likely smooth through the volatility to some extent.
- Indeed, the strong trend in **the Light Traffic Index was restored in February, suggesting good momentum in the economy as 2016 kicks into gear.**
- We will be watching the Truckometer indexes closely for an early heads-up on any impact on domestic activity from the tightening in financial conditions which can typically flag a turn in momentum.

### GDP AND THE ANZ HEAVY TRAFFIC INDEX



Source: ANZ, NZ Transport Agency, Statistics NZ

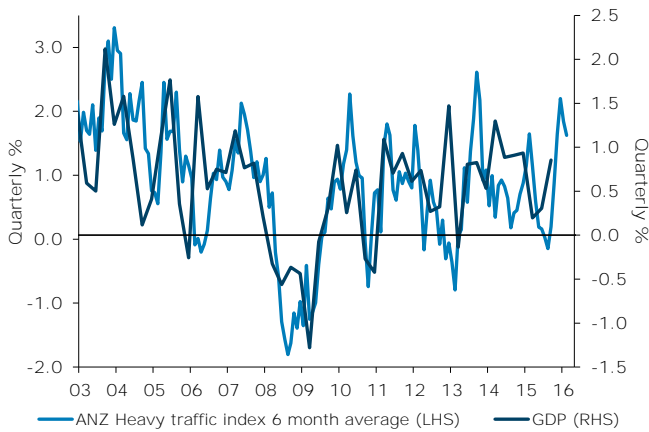
<sup>1</sup> **The ANZ Heavy Traffic Index** comprises flows of vehicles weighing more than 3.5 tonnes (primarily trucks) on 11 selected roads around NZ. It is contemporaneous with GDP growth.

<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 **rose 1.6% in the month of February (seasonally adjusted – sa), after falling 4.3% in January**. The index suggests GDP growth north of 1% in the December quarter, but potentially a softer Q1, with two months of data in. However, it is likely that GDP will smooth through the Truckometer’s predictions.

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



Source: ANZ, NZ Transport Agency, Statistics NZ

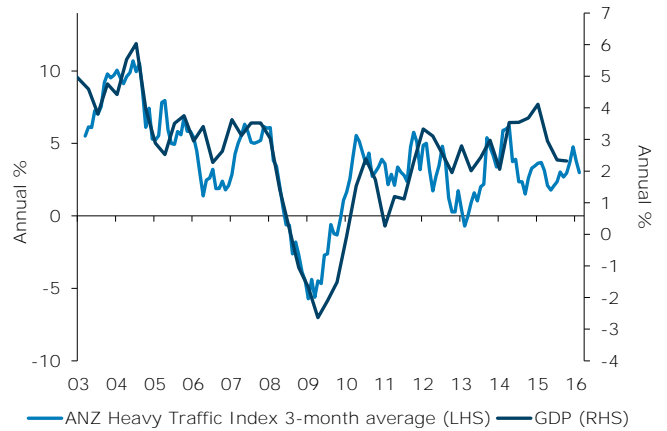
**Annual growth in the index dipped to 3.0%** (figure 2).

**In February, traffic flows rose on 7 of 11 roads in the Heavy Traffic Index, and all 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 rose 2.0% in February (sa)**, returning to its strong upward trend (figure 4), illustrating good momentum in the economy.

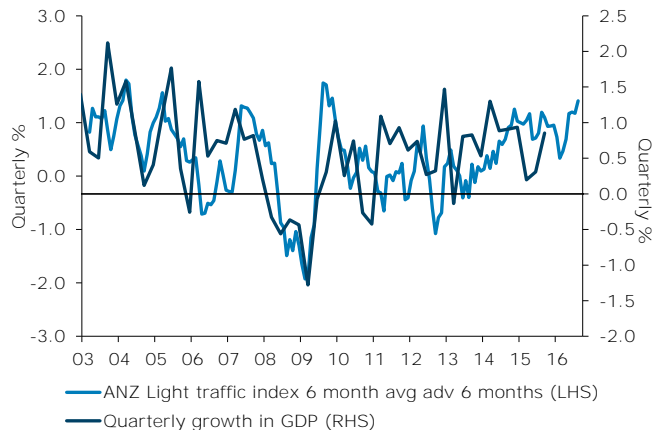
**The rebound in February highlights that we were right not to place too much weight on one monthly read.** Nonetheless, we are watching our timeliest economic indicators closely. Financial conditions have tightened rapidly: the NZD is stubbornly high, export prices are weaker, bank funding costs have risen sharply, and house prices in Auckland are currently in retreat. These headwinds will moderate growth across the economy, despite the strength in the construction and tourism sectors. **The Truckometer will be a useful, timely indicator of how the tug of war is progressing.**

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



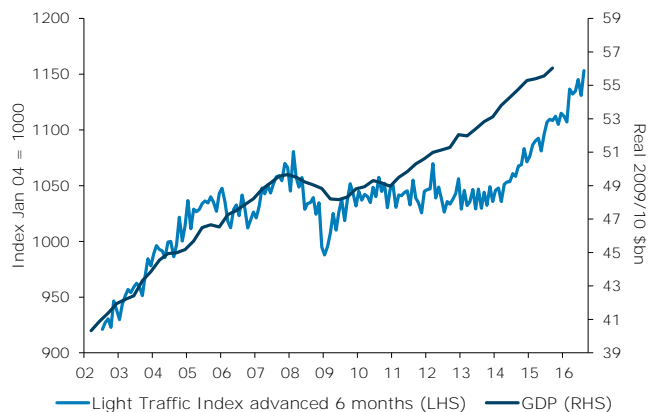
Source: ANZ, NZ Transport Agency, Statistics NZ

**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.

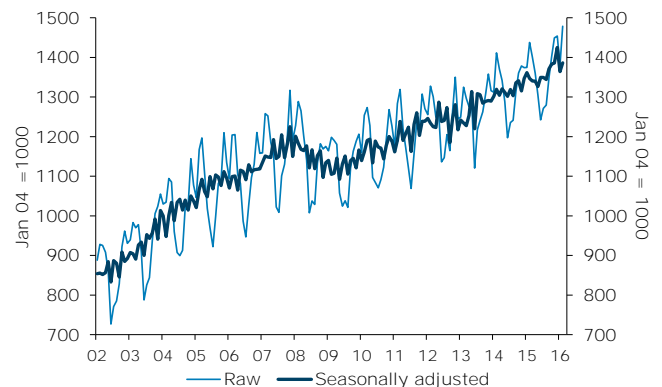
The contemporaneous relationship between heavy traffic and GDP is not surprising – road user charges revenue data have long been used as an economic indicator. Trucks are moving produce, after all. But the lead to GDP provided by the light traffic flows is more surprising. It would appear that **willingness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

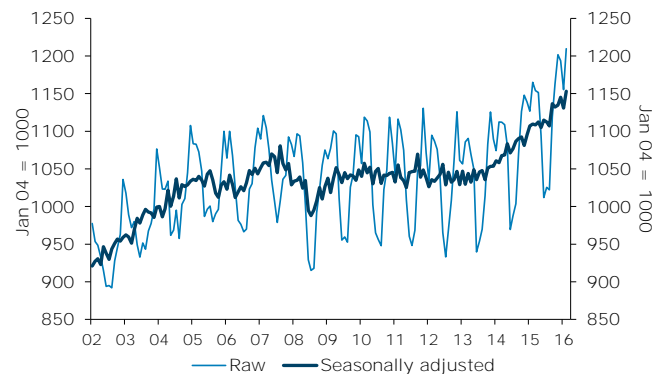
outturns. But the two indexes are remarkable indicators – the Heavy Traffic Index for its close match to GDP, as well as its timeliness (available less than two weeks after the period in question), and the Light Traffic Index for its valuable and unusual six month lead to GDP.

*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
Feb-15	1110	0.2	1347	-1.1
Mar-15	1108	-0.1	1340	-0.5
Apr-15	1112	0.3	1340	0.0
May-15	1105	-0.7	1326	-1.0
Jun-15	1115	0.9	1350	1.7
Jul-15	1112	-0.2	1349	0.0
Aug-15	1107	-0.5	1344	-0.4
Sep-15	1137	2.7	1371	2.0
Oct-15	1132	-0.4	1383	0.9
Nov-15	1135	0.2	1385	0.2
Dec-15	1145	0.9	1425	2.9
Jan-16	1131	-1.3	1364	-4.3
Feb-16	1153	2.0	1386	1.6

**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

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