



Insights

Topical commentary on the Auckland economy

March
2019

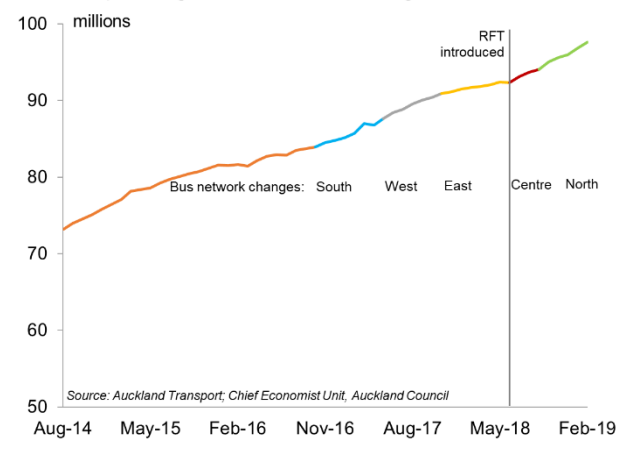
Regional fuel tax: Already paying dividends

- There has been an uptick in growth in public transport (PT) use since July 2018.
- Two significant events affected demand for PT in July – a change to the bus network, and the introduction of the Regional Fuel Tax (RFT).
- Growth in public transport in August and September 2018, compared with the same period a year earlier, suggests the strongest growth has been in the more distant reaches of the city, exactly where you would expect it to be highest given the impact of the RFT on the attractiveness of driving.
- While the RFT was introduced primarily to fund much-needed transport improvements, stimulating PT uptake is one of its key side-benefits, and one it is already delivering upon.

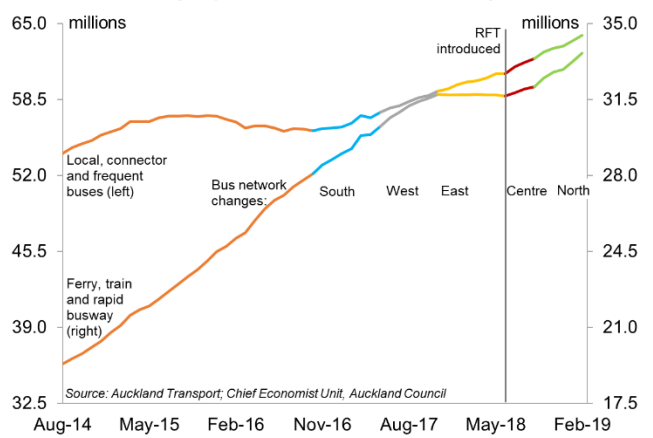
PT patronage in Auckland has been growing for years, but at a sharper rate since July 2018. In fact, in the eight months since the end of June, annual patronage in Auckland is up 8.9% compared to the same eight months a year earlier.

This growth rate is twice what we saw in the 12 months to June 2018, and 33% higher than growth in the year to June 2017, a period during which several bus network changes were implemented.

Annual PT patronage and bus network changes, Auckland



Annual PT patronage by mode and bus network changes, Auckland



Whereas growth over the previous years has often been driven by modes other than regular local buses – trains and the rapid busway mostly – the recent surge has been widespread across PT modes.

Who's driving this bus?

So why has there been the sudden acceleration in an-already solid growth rate of PT use?

The relationship between PT use, petrol prices, population growth, personal preferences and PT networks is complex. Still, there are two obvious culprits for the uptick commencing in July 2018. From 1 July 2018, the RFT came into effect in Auckland, raising petrol prices. And on 8 July, the new central Auckland bus network came into effect, changing routes and frequencies throughout the isthmus area from New Lynn to Panmure.

We examined AT HOP card tag-on data for the months of August and September 2018, comparing them to the same period the year before.¹ We found that in the six Local Boards that make up the isthmus, total PT tag-ons (excluding transfers) across all PT types increased 1.6%, and 2% on buses, presumably aided by the new bus network. Meanwhile, in the *rest* of Auckland, tag-ons were up 5.8% in total, and 6.4% on buses.

If PT use had changed at the same 1.6% rate outside the isthmus as it changed on the isthmus, we'd have seen almost 3,600 *fewer* PT tag-ons a day than we actually saw in the rest of Auckland.

In other words, while the change in the central city network seems to have played a role in the latest surge in tag-ons, it is the *more distant parts of the city*, which didn't receive a network change in this time, that saw a bigger change in tag-ons. These parts of the city have longer travel distances to get to the city for work, for instance. Growth in tag-ons in August to September 2018 compared to a year earlier was 27% in Franklin, 12% in the Waitakere Ranges, 10% in Howick, and 9% in both Rodney and Henderson-Massey. The map at the end of this paper shows the clear pattern by Local Board.

The RFT appears to have played a significant role in changing people's behaviour over and above network changes, by encouraging them to use PT rather than their cars.

Petrol prices peaked in October 2018, and have since fallen, yet the change in behaviour has stuck, no doubt aided by the new bus network for the North Shore that begin on 30 September 2018.

But wait, there's more

At the time the RFT was being introduced, the Chief Economist Unit identified seven advantages the RFT provided. Stimulating a switch to PT to help decongest our roads was just one of those.

Naturally, the main benefit was an immediate shot in the arm to funding much-needed transport infrastructure projects in Auckland. One major such project is the Eastern Busway, which is underway, and which the RFT will help fund through Stages 2 to 4. But the RFT would likely also:

- reduce the discretionary vehicle kilometres travelled in Auckland, again reducing congestion and emissions
- **broadly** align with the beneficiary pays principle – those who use the roads more would generally contribute more toward funding
- incentivise people to switch to more fuel-efficient cars, reducing emissions
- be easily administered (the economic principle of administrative efficiency)
- be hard to avoid, as less than 4% of Auckland's population lives close to regional boundaries.

Not perfect, but right for now

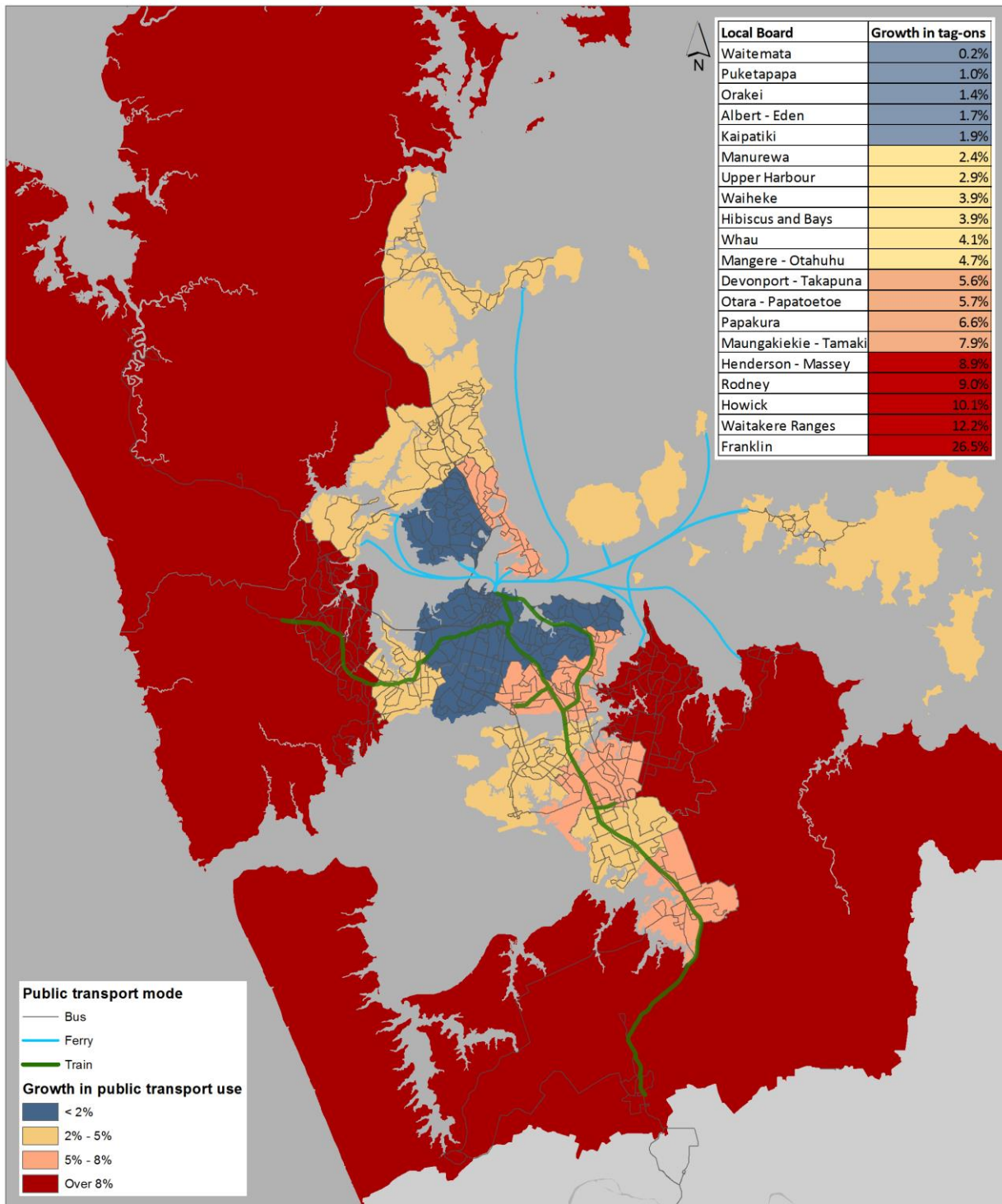
Of course, there are limitations to the RFT. Not everyone can afford to buy a more fuel efficient car. Access to frequent PT alternatives is not universal, although the RFT itself will play a big part in increasing access. Some would say that the RFT is only a stop-gap on the way to a more comprehensive traffic demand management system such as congestion pricing.

But right now, the RFT is already paying dividends in helping change how people travel, doing its bit to free up space on the roads.

David Norman

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¹ We chose August and September to allow a month for people to adopt behaviour change and to switch to a different mode of transport due to the effects of either change, and also to exclude the impacts of the 30 September network change on the northern bus network. We excluded transfer tag-ons to isolate unique trips. There were just over 14 million tag-ons in August to September 2018.



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**Growth in public transport tag-ons
 Aug & Sep 2017 vs Aug & Sep 2018**

0 2,000 4,000 6,000
 Meters
 Scale @ A4
 = 1:400,000
 Date Printed:
 4/04/2019



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