



Insights

Topical commentary on the Auckland economy

November
2018

The challenge of developing in desirable locations

- High land value areas are those that are the most desirable; land values rise because they hold greater amenity.
- Areas with high existing land values tended to receive less new housing capacity through the Unitary Plan process.
- This relative shortage of new capacity in high value areas meant that the few properties that were upzoned in those areas received higher property value increases.
- Ironically, these higher premiums to upzoned properties in existing high value areas make commercially feasible development harder there.

Auckland's population has increased sharply over the last five years. Over the next 30 years, it is projected that we will need to accommodate up to a million more people within the region's boundaries.

The Unitary Plan was a key response to this need. This land use regulation rulebook significantly expanded the building potential on land parcels across the region ("upzoning").

It involved a massive process of consultation and hearings before an independent panel of decision makers. At the time of its passing, the Plan had an enabled physical capacity of over one million dwellings in existing residentially-zoned areas.

Newsflash: people want amenity and pay for it

Land prices reflect the relative attractiveness of land, which includes its location (proximity to jobs, the ocean, views), availability of public transport options, presence of schools, shops, parks and other amenities.

And that is exactly what we are seeing in development patterns, where it has been enabled. We are seeing evidence that the Unitary Plan is working: building consent numbers reached an all-time high for the year to August 2018. Crucially, 85% of [all growth in new dwellings](#) consented in the 11 months to June 2018 was in brownfield areas, with a disproportionately large share in catchments served by rapid busways and trains.

Land values are higher in areas that have a greater and better mix of these amenities, reflecting their attractiveness. There are also external benefits



from people living closer to job catchments, schools, public transport, shopping and recreation options:

- lower infrastructure costs
- greater agglomeration economies and improved economic productivity
- lower congestion
- lower emissions.

This suggests that more dwellings in the more desirable parts of the city allows a higher degree of economic wellbeing at a lower cost per person.

Land value high, upzoning low

This raises the question: have we optimised where development can happen to maximise the use of existing amenities for Aucklanders?

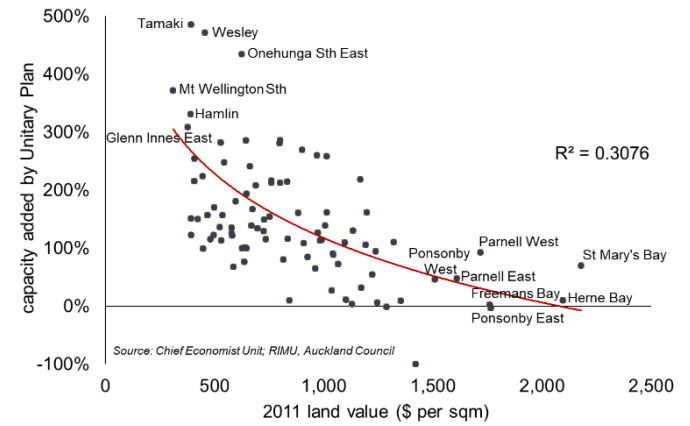
We looked at how much **capacity** (in percentage terms) the Unitary Plan **added** to various parts of Auckland as a function of 2011 land values (i.e. prior to the UP process being initiated). The advantage of using 2011 land values is that they were a better reflection of the attractiveness of the land under existing rules at the time rather than being muddled by speculation on how the Unitary Plan (mostly operative from November 2016) might change zoning rules. All that was known back in 2011 was that Auckland had to produce a single land-use plan. In economics speak, this approach avoids the reverse causality problem.

Our results for the isthmus (the “old” Auckland City) show a statistically significant negative relationship between more valuable (i.e. desirable) parts of the city and the extent to which they were upzoned, and that the value of land in 2011 explained about 30% of the variation in capacity added. This means that all else held constant, a **higher** land value in 2011 would predict **less** capacity added.

This relationship for the rest of Auckland’s urban areas (the north, south and the west) was also negative, albeit a weaker relationship. The results are highlighted in the chart below and the maps at the end of this report.

On the isthmus, a neighbourhood with a land value of \$500/m² typically received an increase in dwelling capacity of around 230%. Meanwhile, a neighbourhood with a land value of \$1,000/m² was likely to receive a much smaller dwelling capacity

Auckland isthmus - housing capacity added vs 2011 land values



increase of about 120% and an area with a land value of \$2000/m² was likely to receive a dwelling capacity increase of less than 10%.

Broadly, less capacity added was in some of the highest value areas and some of the lowest value areas had the most upzoning. In many cases, a major driver of value in the highest value areas is [proximity to the city centre](#), which employs around 14% of Auckland’s workforce on roughly 1% of the urban land area.¹

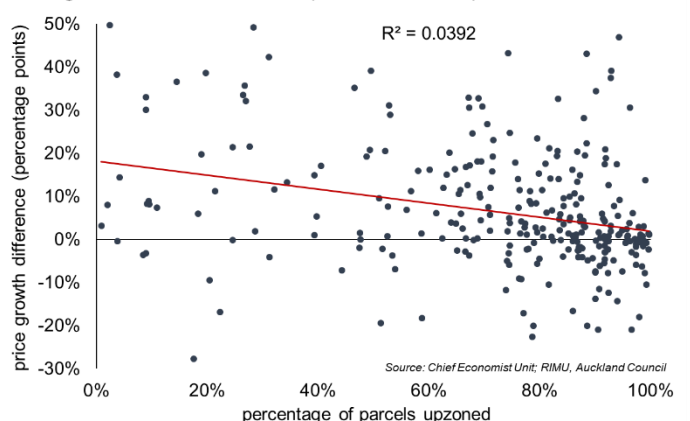
In less upzoned areas, private plan changes can still allow more intensive development on individual sites or in smaller areas. But transaction costs (financial and time) are significantly higher than under a broader more permissive zoning regime that people have a choice to use.

Higher value land and development

[Our previous work](#) has shown how upzoning through the Unitary Plan adds to property values.

Economic theory suggests that the premium from being upzoned should reduce when there is greater choice for developers in terms of building sites. Our analysis confirms this point, as highlighted below.

Price growth difference 2011-17, upzoned over non-upzoned, urban Auckland



¹ We would note that sometimes there are valid reasons for why greater capacity cannot be added to some areas. There may be environmental concerns or other externalities (e.g. special character areas) that would be affected by additional development. Dwelling

The value premium to upzoned properties in areas that had a larger fraction of parcels upzoned was lower. For the period 2011 to 2017, for every 10 percentage point increase in the fraction of properties up-zoned in a certain neighbourhood, there was a 1.6 percentage point **smaller** difference in the increase in land values between upzoned and non-upzoned properties in the neighbourhood.²

As an extreme example, in an almost-fully upzoned neighbourhood, upzoned properties would see prices rise 16 percentage points less than upzoned properties in a neighbourhood where almost no properties were upzoned.

But as we have pointed out, higher value areas tended to get less upzoning than lower value areas. This means that the few properties that did get upzoned in higher value areas tended to get larger price premiums from being upzoned.

As a result, upzoned properties in high value areas are even more difficult to develop on a commercially feasible basis at price points that give developers a broad market. In a time of great demand but also lending constraints, soaring building costs and cashflow issues, this may lead to less development on upzoned land in high value areas.

But in neighbourhoods where a larger number of properties are upzoned, resulting in a lower price premium from being upzoned, the share of properties that can be redeveloped in a commercially-feasible way may be larger.

In summary

The Unitary Plan enabled a lot more residential development on existing properties in Auckland.

Some of the most desirable areas, near jobs and other amenities, were some of the least upzoned. Perversely, by upzoning less in existing higher value areas, the commercial feasibility of development there has quite possibly been reduced.

How we did it

We used 2011 land values sourced from the Digital Valuation Record (DVR) as it existed in May 2012, and plan enabled capacity information from the

Capacity for Growth Study (CfGS) 2012, including consideration of information taken from the DVR and cadastral patterns, and Operative (Legacy) District Plan rules as they existed in May 2012.

Plan enabled capacity information was assessed using the CfGS model as reported in the Housing and Business Development Capacity Assessment December 2017, and reflects information taken from the DVR, cadastral patterns, and Auckland Unitary Plan, Operative in Part Rules as they existed in November 2017. (Valuation information reflects an effective valuation date of June 2017)

We limited the analysis to land parcels that were in both data sets and which were of a “standard suburban residential” nature, and remained relatively unchanged, except for the development potential (if any) resulting from the zoning change process.

To be considered a “standard suburban residential” site, the land parcel must be:

- associated with a single rates assessment record (this precluded cross leases and other multiunit developments, and typically means the number of residential dwellings on the site is either zero (i.e. vacant) or one)
- of a land area of between 300 m² and 2000m² (i.e. covering the vast majority of residentially zoned parcels in the region)

To be “unchanged”, the land parcel must have:

- a valid DVR (i.e. valuation) and capacity data in the Legacy Plan and the Unitary Plan
- the same number of rates assessment records (i.e. one) at the start and the end period
- a land area difference that is +/- 100m² (allowing for minor measurement errors and small boundary adjustments or ROW changes).

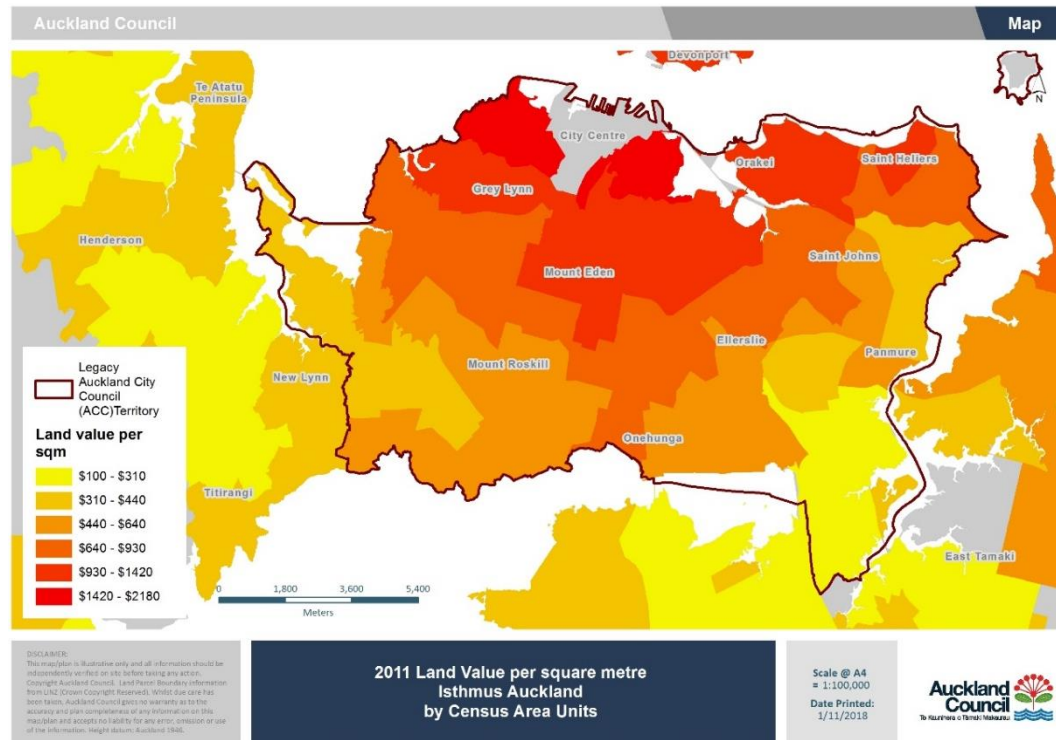
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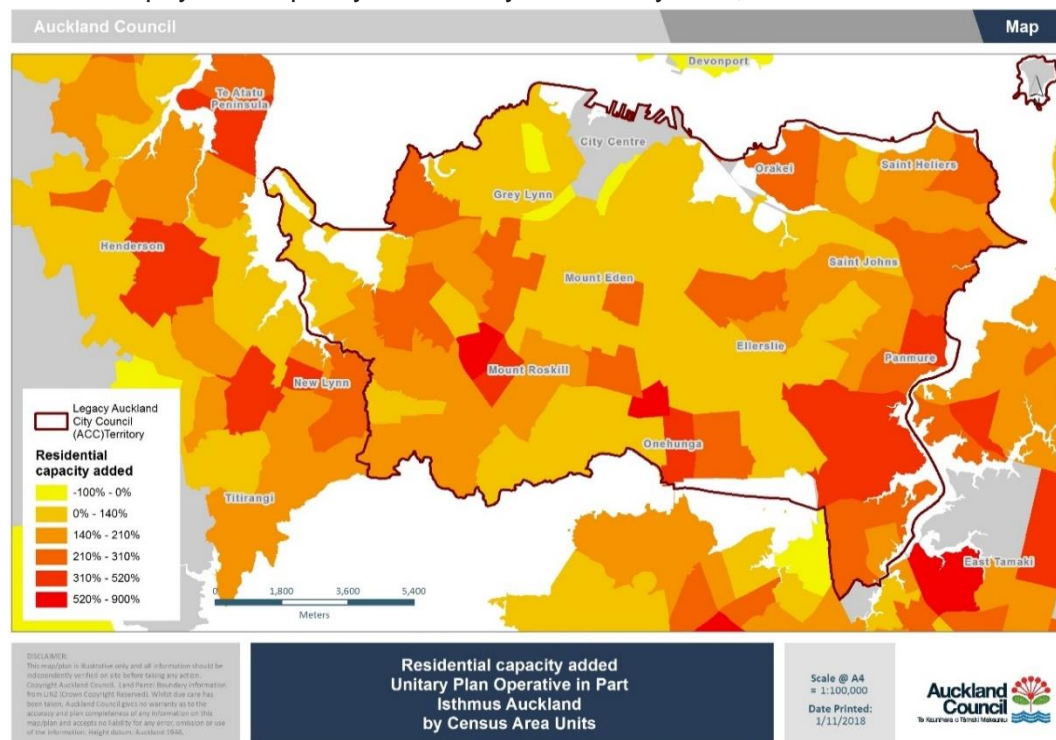
densities are slightly higher in higher land value areas as well, which partly explains their land values in the first place, and which might make capacity addition harder.

² We note that upzoning explained only a small share of the variation in property value gains between upzoned and non-upzoned properties, but the results were statistically significant and inversely related.

Land value per square metre by census area unit, Auckland isthmus, 2011*



Additional physical capacity enabled by the Unitary Plan, Auckland isthmus*



* Grey areas: The city centre (the most densely developed area of Auckland) in 2017 had no properties that were single-use residential properties in 2011 or that had not undergone significant changes between 2011 and 2017, which meant the CBD was filtered out of the analysis. The Highbrook area in the southeast is zoned "light/heavy industrial" and no residential activity is permitted there.

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