

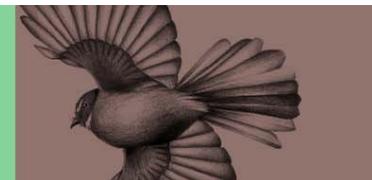
Auckland and Productivity

Dave Maré, Motu Research

'Auckland productivity' workshop

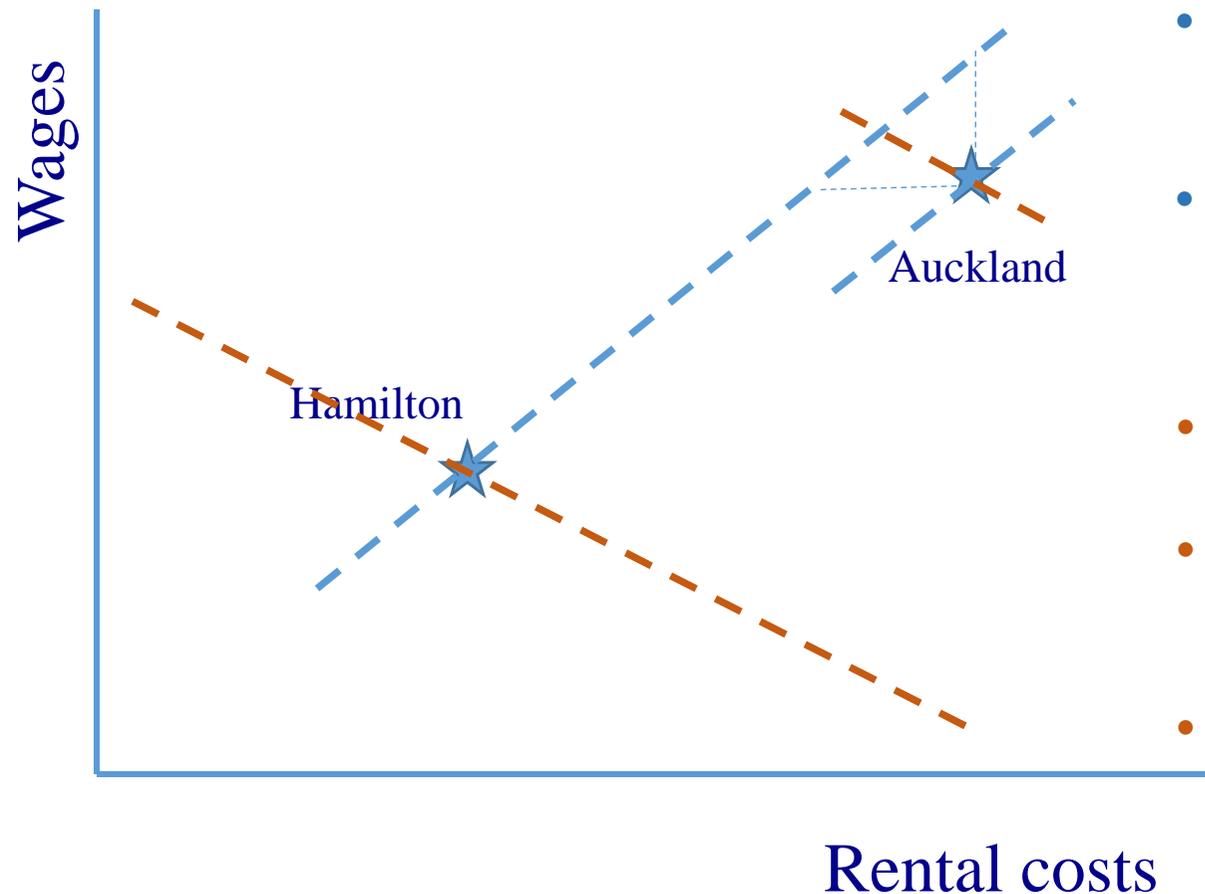
Auckland Policy Office

4 March 2016

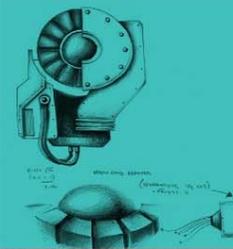


Auckland is a package deal

- Spatial Equilibrium – a helpful fiction



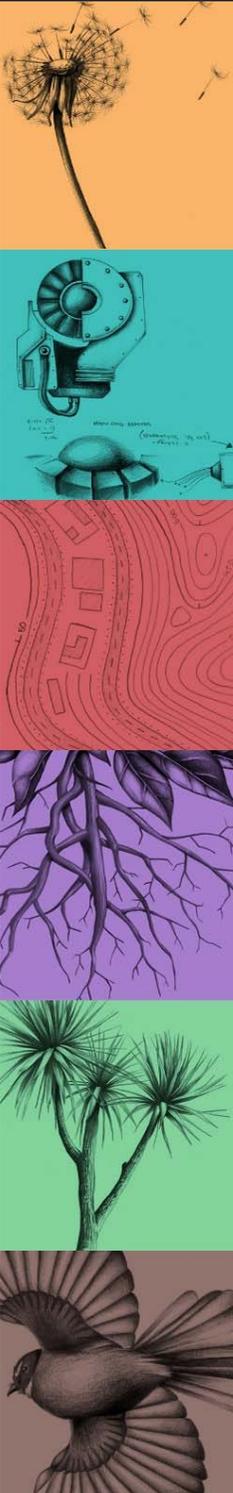
- **People move unless places are equally attractive**
- Hamilton residents are willing to pay Auckland rents, if wages are high enough
- As drawn, Auckland is a great place to live – people are willing to pay higher rents / get lower wages to be there
- **Firms move unless places are equally attractive**
- Hamilton firms would pay Akld rents only if wages were lower than in Hamilton
- Firms are willing to locate in (higher-cost) Auckland because they are more productive in Auckland



Why is Auckland more productive?

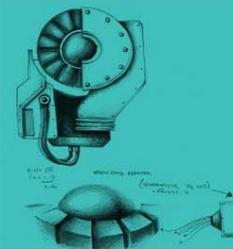
- Complementary productive inputs & advantages
 - The 'extras' in the package deal
 - Not included when we calculate productivity
 - Paid for in land rents, so profitability is equalised

		Auckland
Learning	Bringing together diverse ideas/ seeing what others do	✓
Matching	Easier to find the 'right' workers/ suppliers/ customers	✓
Sharing	Infrastructure/ gains from sharing variety/ specialisation/ risk	✓
Scale	Only cities can potentially deliver on all 3	✓
Diversity		
Specialisation		



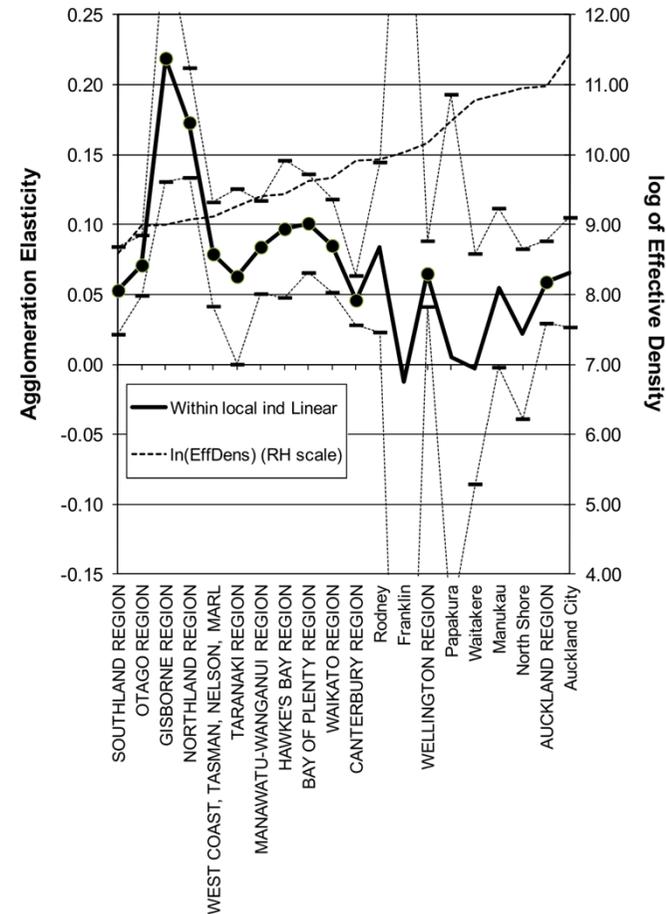
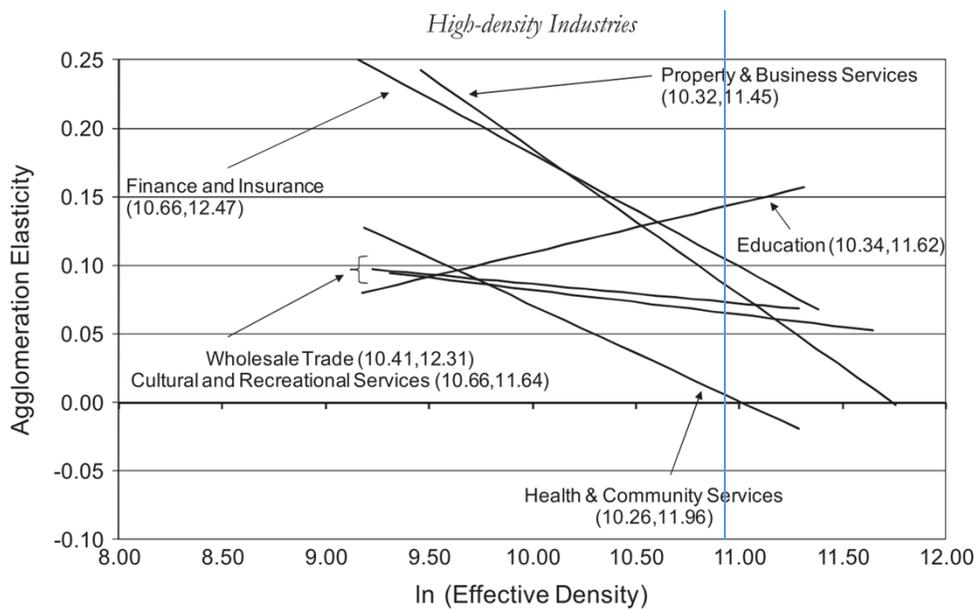
How much more productive is Auckland?

- Labour productivity (LP)
 - Auckland Region (2006) had 33% higher LP than rest of NZ
 - Industry composition explains about half
 - Auckland has more industries that are high-productivity anywhere
 - Industries that are over-represented in Auckland are those that benefit most from being in Auckland
- Multi-factor productivity
 - Higher levels of other inputs account for some more of the gap
 - Capital: Physical & intangibles
- Density is implicated (“agglomeration elasticity”)
 - Doubling density associated with 4% - 6% higher productivity



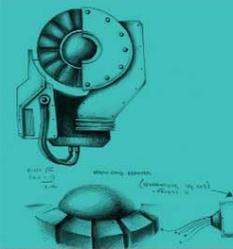
Does more density raise productivity?

- Yes, but the effects are weaker when density is already high
 Within industries and across regions (?)



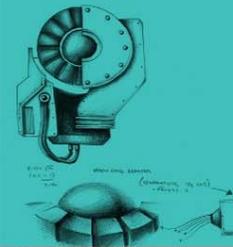
What else raises productivity?

- Additional complementary shared local inputs
 - Which come at a cost
- Skills
 - Complementary to growing industries
 - Positively linked with productivity, innovation, growth
- Connectedness
 - Exposure to diversity of ideas, size of market,
 - Transport
 - Auckland not particularly strongly connected to Hamilton/ Tauranga
 - (Paling et al. 2011)
 - Migrants
 - NZ evidence of limited impact on productivity, innovation, exporting
 - (Maré et al 2011, 2013; McLeod et al 2014; Sin et al. 2014)



Loosening the leash or pushing on a piece of string

- Relieving constraints likely to be more feasible/ effective than driving growth
 - (Unless constraints are very expensive to relieve)
 - Problem definition: Is there a missing complementary input
 - Addressing/ targeting symptoms likely to be ineffective
 - Lack of large firms – why?
 - Limited diffusion – why?
 - Low FDI/ ODI - why?
 - Low competition – why?
- There may be substantive reasons why this is so*
- It may cost more to 'fix' than will be gained*
- Exporting as a goal - Reasons for not exporting
 - Export intentions more likely to be realised if motivated by local market limits (Sanderson, 2013)



Is the answer in Auckland?

- A metaphor: NZ as a classroom
 - Auckland is the group of smart kids who sit at the front
 - Should the teacher focus attention on Auckland?
- Rationales
 - Auckland is big
 - Auckland has the best performance
 - It's easier to teach smart kids (lower costs?)
 - The teacher can make a bigger difference for the smart kids
 - higher benefits; peer effects through learning, competition
 - What's good for Auckland is good for the class
 - Interactions: Network v FTF (face-to-face) v FOAF (friend of a friend)
- Need to focus on the marginal impact
 - Make the biggest difference with teaching resource
 - (and stop the smart kids wanting to go to Sydney High)

