

# The Mess we are in: Where will the additional capacity come from?

Professor John E Tookey

School Engineering, Computer and Mathematical Sciences

# Contentious?

**Regional leaders reject Kerr's claim on Chinese buyers**  
By Isaac Davison  
5:00 AM Friday  
Auckland Region  
2:56 PM Thursday  
Property  
Isaac Davison  
Isaac Davison is a NZ Herald political reporter.  
Email Isaac @Isaac\_Da

**Rise of 'casual racism' in New Zealand**  
5:00 AM Sunday  
Discrimination  
Bryce Edwards  
Bryce Edwards is a  
Anne  
buying  
9:45 AM Tuesday  
Property  
There's a social media especially about race  
9:45 AM Tuesday  
Property  
Hastings Mayor's housing "did not"

**Real estate overseas**  
7:01 AM Monday July 2  
Economy Markets  
Anthony  
paid for  
1:11 PM Monday  
Employment  
Eric Craddock  
defcon H  
9:43 AM Thursday  
Auckland Region  
City risks mis

**TPP m of NZ p**  
4:20 PM Friday  
Politics  
Warning to Auckland home buyers: 'The game's over'  
HAMISH RUTHERFORD  
Last updated 12:41, March 29 2017

**Auckland buyers**  
11:50 AM Monday  
Markets  
John  
on pr  
9:10 AM Monday  
Property  
Auckland Central Golf Property  
10:50 AM Friday Aug 7, 2015  
Auckland Central Golf Property  
☆ 1 0 0 0 0  
Email Anne @Anne Gibson

**Sell all Auckland golf courses for housing - top economist**  
10:50 AM Friday Aug 7, 2015  
Auckland Central Golf Property  
☆ 1 0 0 0 0  
Email Anne @Anne Gibson

**Property price drop - was that all there is?**  
SUSAN EDMUNDS  
Last updated 11:01, April 13 2017  
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arriner

**NZ housing market could go bust -**  
16/05/2017  
Emma Hurley

**Chamberlain Park Golf Course in Mt Albert, which is run by Auckland Council. Photo / Brett Phipps**

**Hamish Rutherford**  
Alice Parmenter/Fairfax NZ

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**Alice Parmenter/Fairfax NZ**

# Published the same day.....

**Anne Gibson** Property editor of the NZ Herald  
Email Anne @Anne Gibson

## Auckland property prices drop in July

11:08 AM Wednesday Aug 5, 2015

Economy Property Residential Property

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While median prices fell, Barfoot and Thompson sold 41.2pc more homes in July than in the same month last year.  
Photo / Richard Robinson

## Houses rise \$511 a day - homeowners buy before they sell

By Anne Gibson, Scott Yeoman

5:00 AM Wednesday Aug 5, 2015

Property Residential Property

So not contentious at all then really....

# Housing: Core of the problem

- Are we in a Bubble?
  - Mean household income (2013 census) \$76,500.
  - @500,000 dwellings
  - Mean house price in Auckland around \$920,000
  - \$450bn notional housing value of the city
  - Complete (almost) decoupling of household incomes and housing asset values

- *NASDAQ definition:*

*“Market phenomenon characterized by surges in asset prices to levels significantly above the fundamental value of that asset. Bubbles are often hard to detect in real time because there is disagreement over the fundamental value of the asset”*

*Thought experiment:                      What constitutes a ‘good’ single or joint salary?*  
*What multiple of income should a house be?*

In short.....



- Auckland is Bubble City

# Implications

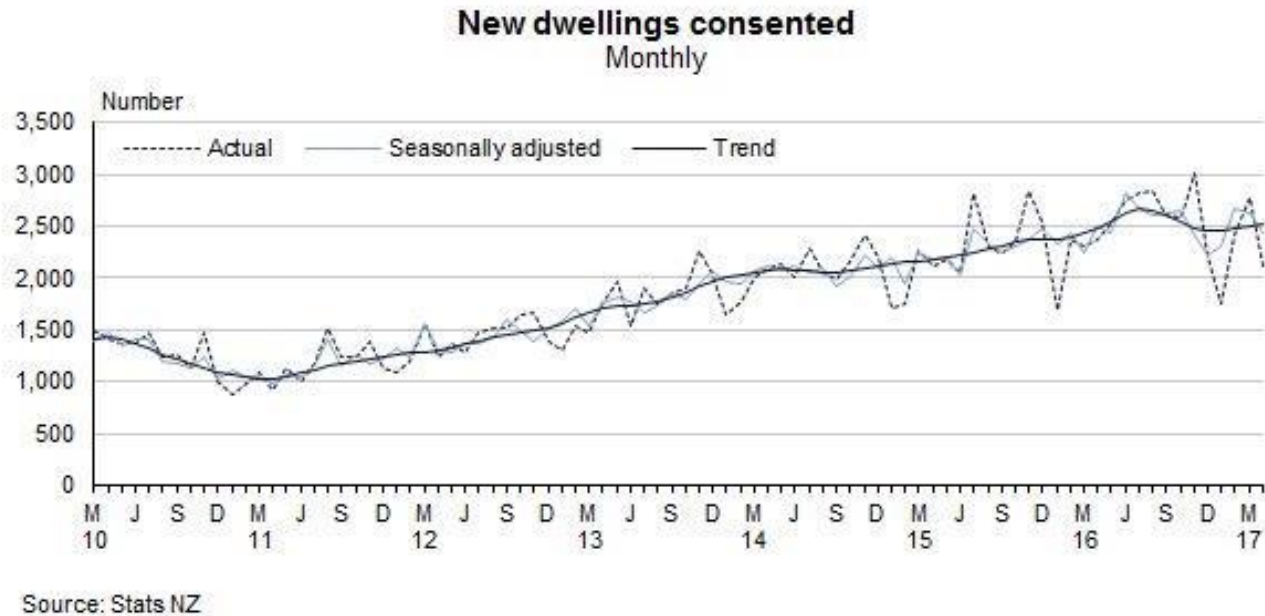
- Entropy (value) of house pricing in the market place ignored because of 'special circumstances' – before ultimate correction
- Common features of all bubbles:-
- Everyone who profits says it is different this time
- All bubbles burst – **question is how violently**



# Governmental reaction

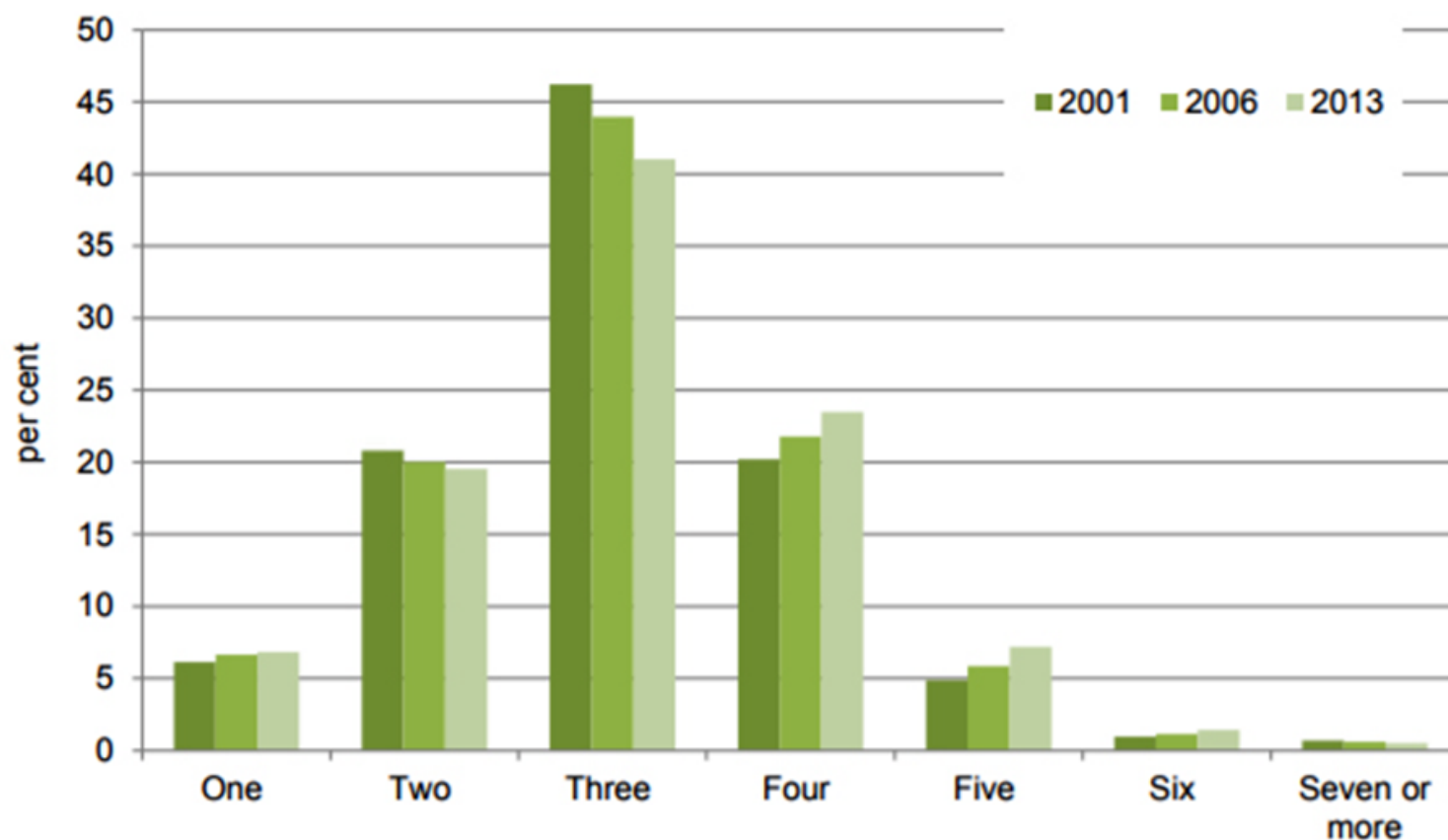
- Denial and minimal intervention
- 2016/17 admission of problem
- More land! More land!!
- SHAs announced to drive numbers
- Auckland Unitary Plan (2015) assumes the city needs an additional 420,000 dwellings by 2045.
- Target is 14,000 per year for 30 years.

# Increasing Output



- Gap is huge
- AKL last year: 10000 consents, 7000 completions.

# Wrong houses are built



***Bedrooms per dwelling in Auckland 2001-2013 (StatsNZ, Census 2013)***

# The Mismatch

- Needs are high – twice our current level of output
- Our ability to deliver is finite
- Investment low, risk high
- Housing is largely small companies
- Reliance on the market to service a societal need
- Markets operate at an optimal level for themselves – not society
- We talk “affordability” – but affordable to Whom?
- Individual commissioners of housing are core to the market – but they act individually.
- We build more 4-5 bed houses than 2-3 bed houses as a result

# The Bottom Line

- Technology is static – the techniques we use today would be recognised by tradies of a century ago
- More land  $\neq$  more houses
- Housing is bespoke – whole new supply chain
- NZ scale is tiny - Scale we have subdivided by bespoke design
- Mass production is non-existent
- Standardisation is limited
- To double output implies doubling staffing and supervision
- Expansion of production for societal good requires industry to bear the costs and the risks.

# Building Better Homes, Towns and Cities

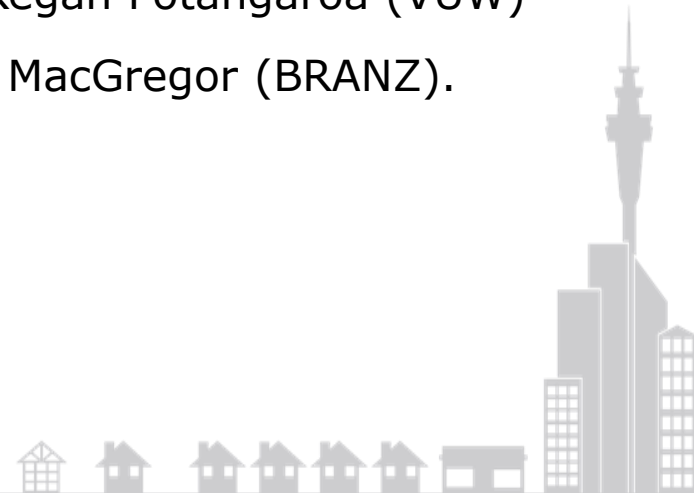
## Ko ngā wā kāinga hei whakamahorahora

### National Science Challenge



## Transforming the Building Industry SRA 6

Professor Suzanne Wilkinson (UoA),  
Professor John Tookey (AUT),  
Professor Regan Potangaroa (VUW)  
Dr Casimir MacGregor (BRANZ).



## Strategic Research Area 6

Developing a healthy,  
coherent, well-  
functioning construction  
sector in terms of its  
levels of innovation,  
people, processes and  
technology.





## Where next?

- A choice has to be made
- Make a noise
- Make a Difference
- You decide.