Review urban transport's role

Competitive urban land markets, and support urban communities

Transport Economics Hub, Wellington & Auckland 4th July 2016

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Introduction

• Purpose: stimulate debate about how transport can support **competitive urban land markets**, and whether it should

• Will cover the problems, causes, and will suggest ways forward

• Caveats, limitations, scope
Problems with housing unaffordability

1. Social cohesion and wealth inequality
2. Stability for the economy
3. More people forced out of home ownership, and renting is a poor substitute
4. Harder to ensure homes for lower income households
5. Lower economic growth (lower productivity and distorted investment)

Median multiple ~ 10 in Auckland. Total residential real estate $821 billion (CoreLogic, March 2016), compared to commercial / industrial real estate $144b, NZ listed stocks $100 billion, NZ Super and KiwiSaver $57.5 billion
Some causes
Urban land market economic issues

Specific market imperfections

**Land isn’t fungible** — land often isn’t easily exchangeable for land elsewhere. ‘Location, location, location’; unwilling land sellers; withholding planning permission

**The ‘problem of contiguity’** — scale developments, infrastructure corridors, and linking to network utilities need to aggregate or access adjacent sites. Creates market power

**Urban land is heterogeneous** — which means urban land can always sustain a mark-up of price over cost. Potential severe issues when coupled with ‘barriers to entry’

**Real estate market is inefficient: prices adjust slowly** — exacerbates speculation

Key issues

**Containing or restricting growth:** reduces supply elasticity

**Benefits & costs absorbed in land prices:** rather than house prices, to large extent

**Speculation:** optimal harvest time when capital gain equals interest rate; 30% vs 6%?
Urban policy becomes paradox

- Land prices increasing
- Housing supply becomes less elastic
- More of the benefits captured by land
- More intervention by authorities

Need to increase competition for urban land, to close gap between prices and cost
Competitive market urban ‘bid rent curves’

Prices moderately higher in urban areas because of infrastructure costs and accessibility to:
1. Goods and services
2. Jobs
3. Amenities

$ Rent

Ag prices
~$50k/ha

Centre

Extent of the city
Uncompetitive market urban ‘bid rent curves’

Council now buying park land at $8 million / ha

Prices >> cost

Land purchase price

Ag prices ~$50k/ha

Expansions are at the uncompetitive price

Urban growth boundary
Vicious cycle

Urban growth control policy makes supply more inelastic (not fungible, and monopolistic)…

…which increases speculative demand…

…which also drives speculative supply…

Suppose net immigration surge…

…which escalates prices, and increases speculative supply…

…which increases speculative demand…

…which escalates prices, and increases speculative supply…

Coleman and Landon-Lane (2007) found a 1% increase in population is correlated with a 10% increase in house prices
How does one re-establish competitive urban land markets?
The “Making Room Paradigm”:

1. Project land needs, based on population growth and density decline
2. Generous metropolitan boundaries
3. Acquire the rights-of-way for major public works (30-meter-wide roads, ideally grids, that can carry public transport and trunk infrastructure in expansion areas)
4. Secure land for public open spaces

Global urban population
1800: 56 million
1900: 290 million
2000: 2,859 million
2050: 6,252 million (projected)

http://www.stern.nyu.edu/experience-stern/about/departments-centers-initiatives/centers-of-research/urbanization-project/project-overview/urban-expansion
The Auckland Plan on infrastructure efficiencies

- It makes better use of existing infrastructure

A quality compact form enables greater network efficiency through the cost-effective provision and servicing of physical infrastructure (transport, communications, water supply, wastewater, stormwater, energy) and social infrastructure (schools, community facilities). Better use of existing infrastructure costs less, and these cost savings are passed on to ratepayers, taxpayers and home buyers.
Auckland’s lower productivity and poorer quality of life is in large part caused by insufficient land for street development, and insufficient crossings along an appropriate lengthy network.

UN-Habitat (2013) Streets as Public Spaces and Drivers of Urban Prosperity, Nairobi
Figure 3.4: Intersection Density in Cities Europe, North America, Oceania
The city of Auckland presents a very specific case, with its city core planned as a suburb with very low connectivity. Its intersection density is below 70, indicating a city where movement within the city centre is as complex as it is in suburban areas. As illustrated in Fig. 3.4, the city core of Auckland is within the group of suburban areas at the bottom of the graph. In other terms, it has same intersection density as suburban areas. Lack of connectivity in the city centre of Auckland is well illustrated in map 3.1. Although some of the houses in the northeastern parts of the city may be located only 400 metres from the train stations, residents have to walk for more than 1 kilometre to reach it, due to poor street connectivity. Arterial streets are mainly for cars, with lack of pedestrian lanes and bicycle paths. However, with “complete streets” or “livable streets” projects, some arterial streets have been re-designed to accommodate all users.

MAP 3.1: POOR STREET CONNECTIVITY IN AUCKLAND, NEW ZEALAND

Poor connectivity doubles distance travelled to train station.

Source: Image © 2013 Google and 2013 WhereIs® Sensis Pty Ltd
What does history teach us?

- Land ratios in the USA decreased from 40% to 17% between 1890 and 1953
  - Cars and roads exploded effective land supply, and supported residential expansion; trucks enabled polycentric cities
  - Land consumption grew ten times faster than population
  - Affordable housing (i.e. median multiples ~3), and Thomas Piketty’s meritocratic description of the latter half 20th century

- Cease fire of real estate boom/busts from late 1930s
  - Why? Scope and scale developments, and transport revolution

Our current challenge is not new, and the world has successfully solved it once before
Competitive urban land markets and sustainable development

Objective: create a buyers’ market for land, but preserve the future prosperity of the city

1. ‘Make room for urban expansion’ (protect corridors & public open spaces)

2. Support ‘off-the-grid’ development at scope and scale
   a) Allow out-of-sequence development; build grids later, after wider areas are built out
   b) New governance, revenue, financing, and delivery vehicles for residential and business land developments, and new regulatory oversight. (Will help building productivity too.)
   c) Overcome ‘reverse sensitivity’ policy problems in NZ

3. Greater private development of trunk roads and waters (drinking/waste)
   a) Efficient pricing, competition, coordination etc
   b) Note wider public benefits of grid infrastructure to support competitive land market
Economics of protecting and acquiring land for key public works
Designations difficult

- Very costly and time involved
- Prematurely focuses on the project, rather than the designation
Improve economic appraisal methods

• Need to analyse transport induced land use change, and appraise the welfare impacts
  – Note: the transformative impact of protecting land for the project could be similar to the project itself

• The most important class of wider economic benefit is ignored:
  – Land is the most important related market to transport
  – There are currently major price-cost mark-ups in urban land
  – Major benefits from improving competition in urban land market to reduce / eliminate price-cost mark-ups
Summary

• Urban transport needs to understand and acknowledge the role it plays in the competitiveness of urban land markets (in the past, currently, and in the future)
  
  Action: Further research advised

• Protecting and acquiring land for transport grids is potentially very important to support market-led ‘off the grid’ development at scope and scale

  Action: Further policy investigation advised

ENDS