Understanding how policy settings affect developer decisions

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Introduction

- 98% new dwelling supply delivered by the private sector, down from 80% in the 1950s
- Need to understand what drives and blocks private sector dwelling supply
- Research funded by AHURI
- Prof Chris Leishman, Prof Jian Zhou, Associate Prof Oluwole Olatunji and Dr Adam Crowe

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PEER REVIEWED

FINAL REPORT NO. 334

The uneven distribution of housing supply 2006–2016

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PEER REVIEWED

FINAL REPORT NO. 349

Urban regulation and diverse housing supply: An Investigative Panel

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Key drivers of development

Return

Market conditions

Risk

Construction costs

Infrastructure

Planning

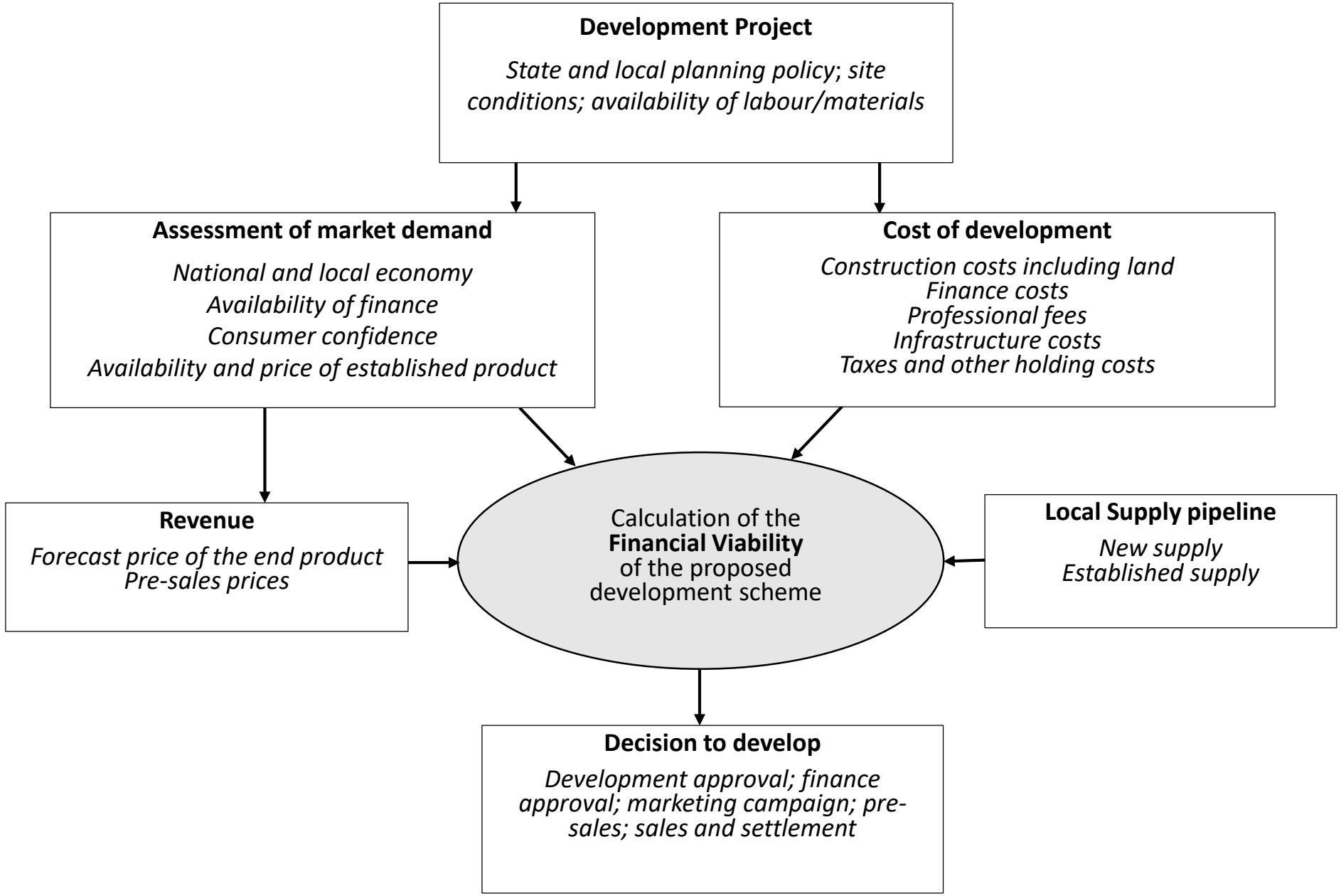
Availability of sites

Finance

Calculating feasibility

- Complex estimations
- Decision whether to proceed with development
- Calculations of land value

- No profit = no development
- Cash flow based modelling approach (Argus EstateMaster DF)
- Inputs critical to robust outcomes
- (UN)Certainty
- Time sensitive and dynamic
- Forecasting revenues – based on current market
- Finance requirements


Development Project
State and local planning policy; site conditions; availability of labour/materials
Assessment of market demand
National and local economy
Availability of finance
Consumer confidence
Availability and price of established product
Cost of development
Construction costs including land
Finance costs
Professional fees
Infrastructure costs
Taxes and other holding costs
Revenue
Forecast price of the end product
Pre-sales prices
Calculation of the Financial Viability of the proposed development scheme
Local Supply pipeline
New supply
Established supply
Decision to develop
Development approval; finance approval; marketing campaign; pre-sales; sales and settlement

Development Feasibility Equation

- Total Net Revenue
- LESS
- Total Costs of Development
- EQUALS
- Developer’s Return

Revenue

Land Subdivision – 200 mixed lots	AUD
Revenues	
Gross Sales Revenue	64,845,594
Residential	64,845,594
Less Selling Costs	(4,601,861)
NET SALES REVENUE	60,243,732
TOTAL REVENUE (before GST paid)	60,243,732
Less GST paid on all Revenue	(5,895,054)
TOTAL REVENUE (after GST paid)	**54,348,678**

Costs

Costs	
Land Purchase Cost	11,000,000
Land Acquisition Costs	820,490
Construction Costs (inc. Contingency)	23,339,726
Townhouse	10,452,306
Houses	9,342,607
Larger	2,865,015
Contingency	679,798
Professional Fees	2,075,556
Statutory Fees	5,493,167
Infrastructure surcharges	466,795
Project Contingency (Reserve)	931,345
Land Holding Costs	475,210
Finance Charges (inc. Fees)	368,333
Interest Expense	976,844
TOTAL COSTS (before GST reclaimed)	45,947,466
Less GST reclaimed	(3,872,276)
TOTAL COSTS (after GST reclaimed)	**42,075,190**

Feasibility outcome

Land Subdivision – 200 mixed lots	AUD
Net Development Profit	12,273,489
Development Margin (Profit/Risk Margin)	**26.29%**
Residual Land Value	12,269,381
Net Present Value	**701,376**
Project Internal Rate of Return (IRR)	**21.64%**
Residual Land Value	10,695,840
Equity IRR	24.99%
Equity Contribution	11,820,490
Peak Debt Exposure	17,579,215
Equity to Debt Ratio	60.71%
Weighted Average Cost of Capital (WACC)	6.89%
Breakeven Date for Cumulative Cash Flow	Nov-2022

Market conditions

- Biggest driver according to interviewees
- Creates uncertainty

- Revenues calculated through comparable sales
- Revenue escalation built in - forecasting
- Sales rates very important
- Timing and sizes of stages within a scheme depend on market conditions
- Pre-sales a critical factor
- Various models of funding
- Market conditions affect landowner expectations and developer return requirements

Cost uncertainties

- Escalating costs
- Unknown infrastructure requirements
- Delays

- Costs more certain than revenue
- Current period of escalation very unusual – creates uncertainty
- Increasing/uncertain infrastructure costs
- Increasing/uncertain costs of urban regulation
- Timing, delays, holding costs and finance

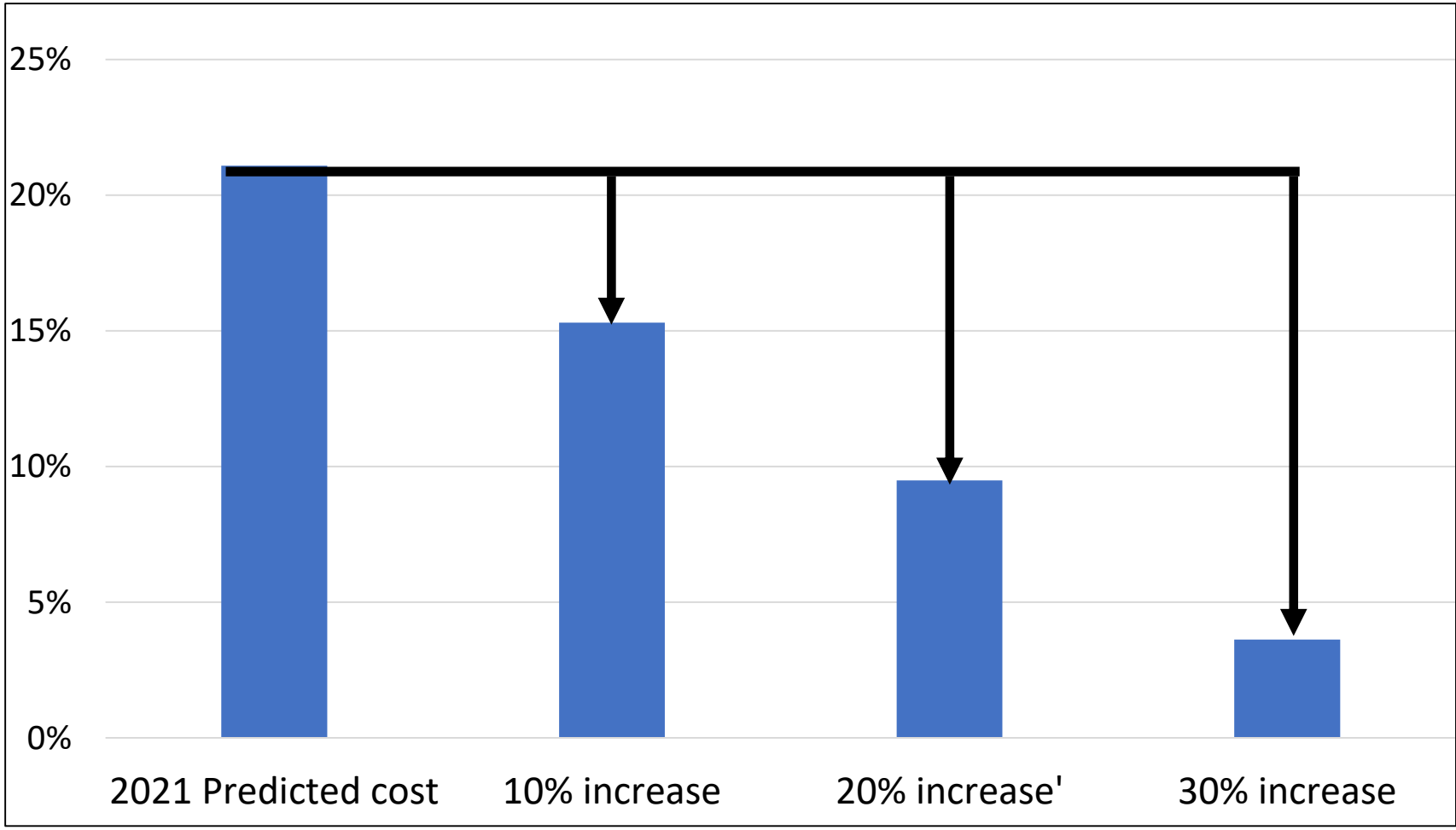
Impact of construction cost rises

2021 Predicted cost	Result
Development Profit	5,776,373
Development Margin	23.14%
Maximum Debt Exposure	20,116,466
Project NPV	670,714
Project IRR	**21.09%**
Equity IRR	32.25%

10% increase	Result
Development Profit	3,920,327
Development Margin	14.62%
Maximum Debt Exposure	21,974,648
Project NPV	(583,498)
Project IRR	**15.30%**
Equity IRR	23.98%

20% increase	Result
Development Profit	2,064,281
Development Margin	7.20%
Maximum Debt Exposure	23,832,830
Project NPV	(1,837,710)
Project IRR	**9.49%**
Equity IRR	14.00%

30% increase	Result
Development Profit	165,204
Development Margin	0.54%
Maximum Debt Exposure	25,691,012
Project NPV	(3,099,239)
Project IRR	**3.63%**
Equity IRR	1.32%



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Housing affordability and development

- Goal - reduce end sales prices
- Direct regulation

- Reduced input costs through:
  - Lower costs of urban regulation
  - Lower land price
  - Lower construction costs
  - Lower finance costs
  - Shorter development period
- Reduction in input costs could lead to any of the following outcomes:
  - Increased profit for the developer
  - Increased land price
  - Reduced end sales price
  - Previously unprofitable sites become profitable
  - A combination of the above

Development case studies

- Calculate the impact of various scenarios on profit outcomes
- Delays post DA are costly

	Land Subdivision	Apartments	Townhouses
10% increase in costs	-18.6%	-42.0%	-42.1%
Impact on prices	5.2%	7.3%	6.8%
10% decrease in costs	18.7%	42.4%	42.5%
Impact on prices	-5.2%	-7.3%	-6.8%
25% increase in construction period	-23.8%	-33.5%	-29.5%
Impact on prices	9.4%	8.5%	6.9%
25% decrease in construction period	45.7%	56.4%	44.0%
Impact on prices	-8.3%	-6.3%	-4.9%
40% increase in disposal period	-9.7%	-4.6%	-4.4%
Impact on prices	3.1%	0.8%	0.7%
40% decrease in disposal period	12.5%	5.3%	4.3%
Impact on prices	-3.0%	-0.9%	-0.7%
10% decrease in costs, 20% decrease in disposal period, 20% decrease in construction period	71.3%	107.5%	118.5%
Impact on prices	-13.1%	-12.8%	-12.2%

Development case studies

- Affordable housing contributions significantly impact profitability
- Need to pass at least some of the impact to landowners

IRR change	Land Subdivision	Apartments	Townhouses
No stamp duty	7.4%	6.1%	6.2%
20% density bonus	18.5%	18.8%	26.4%
20% affordable housing contribution	-38.0%	-45.0%	-81.4%
Reduction in land cost to deliver AH at TRR	-26.5%	-44.4%	-51.2%
20% discounted market sale	-8.3%	-24.2%	-25.2%
Reduction in land cost to deliver AH at TRR	-0.6%	-29.7%	-17.3%

Land Subdivision ($250k)	IRR	Change in price to maintain IRR
Developer contributions at $25k per lot	21.64%	-
Developer contributions increase from $25k to $50k	12.05%	$33,089
Developer contributions increase from $50k to $75k	3.61%	$66,178
Developer contributions fall to $10k per lot	28.04%	-$19,836

Apartment ($500k)	IRR	Change in price to maintain IRR
Developer contributions at $13,333 per lot	15.72%	-
Developer contributions increase to $20k	14.15%	$8,735
Developer contributions increase to $30k	11.80%	$21,806
Developer contributions fall to $5k per lot	17.69%	-$10,871

Findings from feasibility modelling

- Small changes to end sales prices have major implications profitability.
- Time is money.
- Additional costs will be passed to consumers where possible.
- Affordable housing requirements introduced post land purchase have major negative impacts on development returns.
- The less subsidy required in the affordable housing contribution, the lower the impact on the IRR.
- In many cases, the cost of affordable housing contributions could be passed to the landowner.

Policy implications

Full report:

https://www.ahuri.edu.au/research/final-reports/384

- The complexity of the development process means policy settings affect different developers, sites and types of product in different ways.
- Policy settings that stimulate market demand will stimulate housing supply.
- The development process is predicated around maximising the land price. This requires maximising revenue from sales and controlling costs. Not great for end consumers.
- Certainty in policy settings reduces risk. Additional costs resulting from policy changes will be passed onto the consumer, wherever possible.
- Reducing input costs ***may*** result in more affordable housing
- Reform to stamp duty has the potential to increase housing supply through higher sales rates and revenues
- Planning policy settings need to consider the economics of development to deliver the most effective supply outcomes.
- A positive approach to development by a LGA is a critical component of strategies to increase supply