

Submission on the Productivity Commission interim report on housing supply regulation

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Summary

The Productivity Commission’s interim report on housing supply regulation (“the report”) provides an assessment of the challenges to expanding housing supply in Australia. The diagnosis and conceptualisation of the problem and evaluation of the related extant literature is balanced, considered, and accurate.

The four stated principles are clear and reasonable. These principles are neither particularly profound nor novel and each rests on an economic test. It is telling that these themes need to be constantly reiterated in the debate on housing supply. The report makes the clear case that economic assessment needs to be central to the policy development process and not simply undertaken as a backfill exercise to justify a settled policy position.

As expected from a broad and comprehensive report, there is a lack of necessary detail and consideration in several areas and open questions are regularly posed. This submission focuses on highlighting some of this detail as it relates to modelling and governance and should be read as both directed comments and recommendations.

About the author

I, Dr Kade Sorensen, hold a PhD in Economics from the University of Auckland. My research has focused on development of spatial econometric tools to support housing market analysis and estimating the effects of land use planning on housing outcomes, particularly with regard to Auckland and the Auckland Unitary Plan (AUP).

I was previously employed at Auckland Council during the implementation of the Medium Density Residential Standards (MDRS) and the Plan Change 78 (PC78) processes.

I am currently employed by SGS Economics and Planning and reside in Sydney, NSW. I also hold an affiliation with Motu Economic and Public Policy Research in Wellington, New Zealand. This submission is made in a personal capacity. The views expressed are solely those of the author and do not represent those of SGS Economics and Planning, Motu Economic and Public Policy Research, or Auckland Council, none of which has endorsed this submission.

I am happy to discuss this submission or the interim report further with the Commission.

1 Demand-led planning and housing supply

The report regularly refers to reform in high demand areas. Methods for identification of areas of highest demand can be relatively straightforward, or complex, depending on the purpose and objective of the analysis. Importantly, much of the necessary data to undertake even unsophisticated analysis is readily available, internally within government.

Almost certainly, land prices should be the primary mechanism for identifying this demand in the most straightforward sense. Fundamentally, land prices capitalise the effect of a range of factors determining household utility. Where land prices are highest is a clear indicator of where demand for location is also highest.

Figure 1 visualises (spatially smoothed) residential land value data direct from the NSW valuer general database. It indicates the likely spatial demand for land across the metropolitan area, respecting the existing planning environment of greater Sydney. While this is the simplest and most accessible dataset available to inform demand-led planning, it remains largely underutilised as a tool.

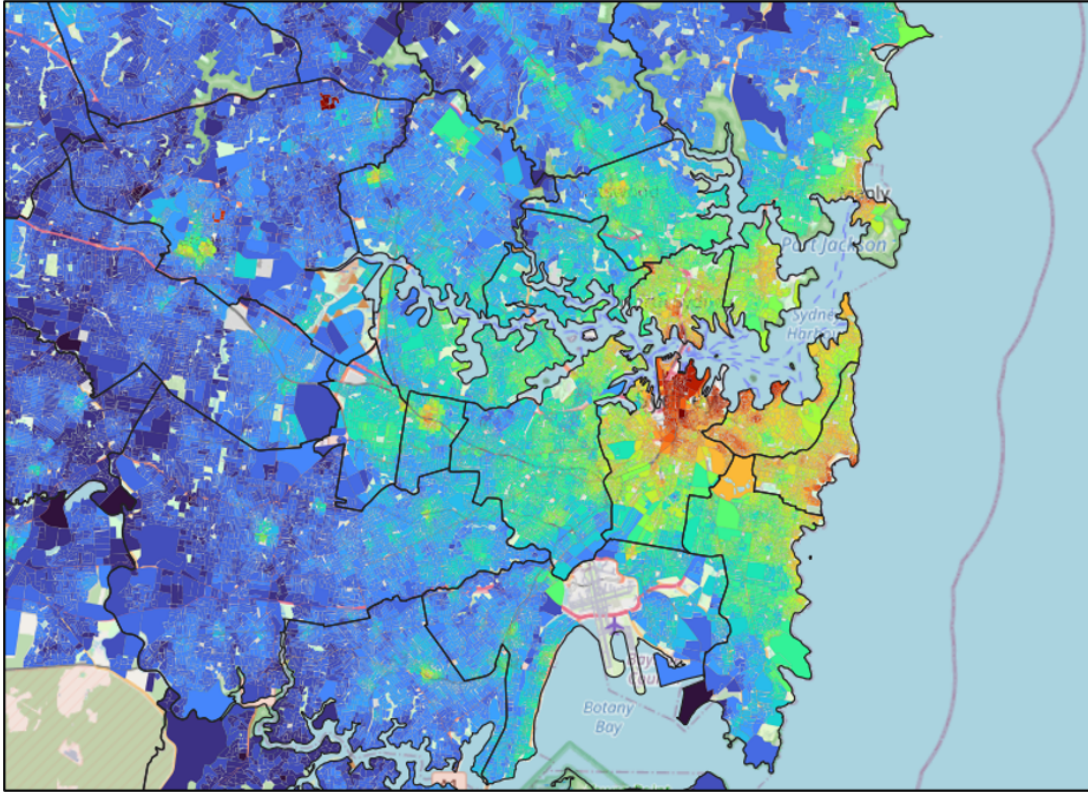


Figure 1: 2025 NSW Valuer General land values for Sydney (spatially smoothed). Scale blue-to-red indicating (normalised) low-to-high land values.

Using the right tools makes straightforward illustrative demonstration of latent demand possible. Controlling out the zoning and planning effects paints a notably different picture for policy questions. Figure 2 imputes land values based on a common, unrestricted residential land use regulation (i.e., the most permissive within the metro area).¹² The difference between these two

¹Note that these estimates are based on the *mass appraisal* assessments of the Valuer General and the empirical method is not revealing *general equilibrium* effects. However, these are still instructive of where demand for location is likely to be highest. See also Blick et al. (2025) for a similar application in the case of Auckland, New Zealand.

²Imputed values are based on the author's own calculations. Spatial smoothing for all figures follows a standard KNN process.

spatial distributions of land value is a simple natural indication of where unmet demand is likely to be highest.³

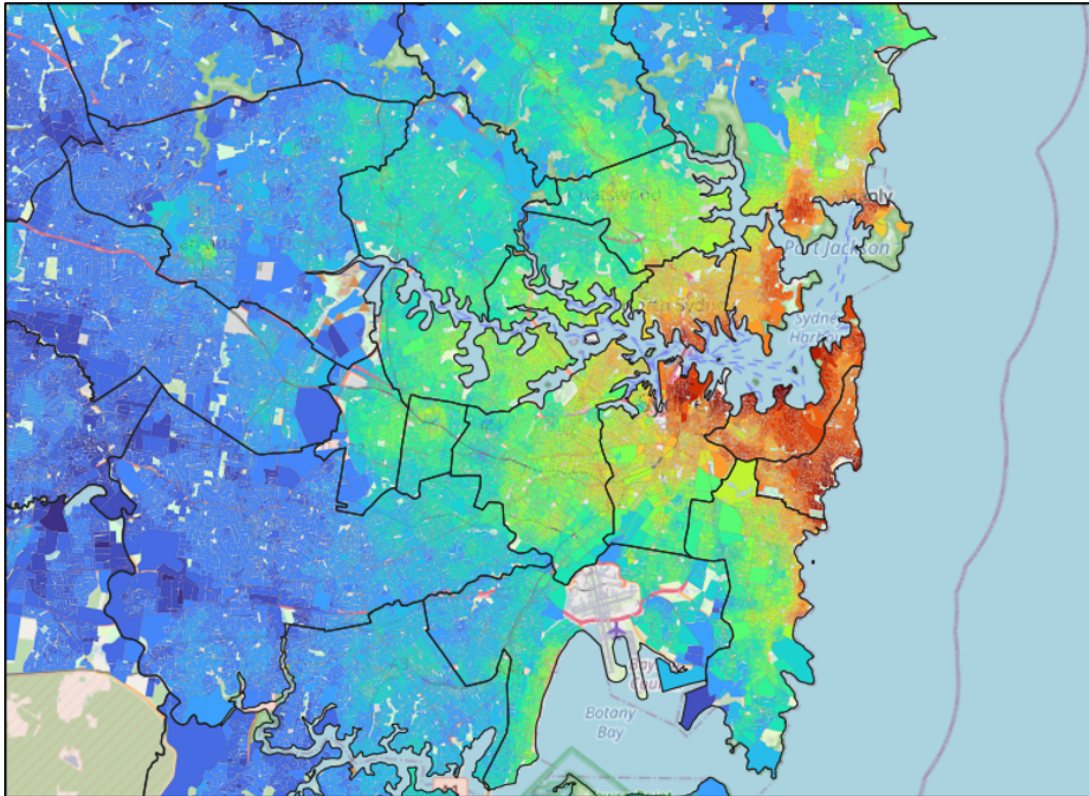


Figure 2: 2025 imputed land (removing effects of residential land use restrictions) values for Sydney (spatially smoothed).

More complex depictions of demand across the urban area can be modelled through discrete choice / random utility and spatial general equilibrium modelling approaches. Given the advanced state of computational performance and a deep understanding of the theory of location choice developed in the urban economics literature over the past 50 years, there are few *technical* barriers to designing, developing, and integrating such models within the policy development process.

More broadly speaking, the fundamental concept of *demand* requires further consideration and formalisation. Localised demand for housing is frequently incorrectly approximated by an exogenous forecast (or projection) of local population growth anchored to a historical trend. This is dangerous for two reasons:

- It ignores the endogenous relationship between population growth and housing supply; both in terms of aggregate quantum and distributional changes
- Forecasts are often poorly understood in terms of their construction method, inferential properties and validity.

These two factors lead to a cycle of inadequate planning for population and dwelling supply growth: adequate capacity for *latent* demand is not provided for, or mandated ‘capacity’ for housing can be condensed into infeasible locations and typologies (e.g., single typology dwelling capacity) or areas of low accessibility. The subsequent lack of realised capacity then limits

³The Commission may wish to extend this analysis to consider the distribution of housing targets and population growth with respect to these simple demand indicators.

population growth, which in turn suppresses next-round long-run forecasts based on historical growth rates. The cycle then repeats.⁴⁵

The implication here is that modelling of localised housing demand needs to instead be based on the amenity that locations provide and based on larger population aggregates. Such an approach would deliver estimates of highly localised demand patterns which could be cleanly and clearly evaluated against local plans for housing supply. The value of developing a nationally consistent framework and modelling approach for estimating latent housing demand at a high spatial resolution cannot be overstated.

2 On monitoring and evaluation

Responsibility for monitoring and evaluation of targets and the standardised toolkit to be used needs to be clear. What New Zealand did well under the NPS-UD framework was a shift towards formalising each of these. The Commission needs to come to a similar position, while recognising that the New Zealand measures need not necessarily be adopted by default.

Housing targets are a necessary policy objective in one way or another. Typically these focus on quantum based measures of supply, with the implicit assumption that given the right capacity headroom, there is a flow-on effect to prices via supply realisation (the consequence of the prevailing demand elasticity that may or may not be well understood). While this is a clean and easily communicable approach, it has two clear challenges:

- It is largely in conflict with the goal of competitive urban land markets; this requires that development opportunities are plentiful enough to remove any scarcity effect. Fixed quantum targets make this difficult.
- It makes little sense from a short-medium run monitoring and evaluation perspective. Supply in response to planning changes may take several years to eventuate (at least on a detectable level). This is exactly the period where the option to develop and pivot policy is most valuable for the responsible institution(s). Waiting around to realise housing supply is unnecessary if immediate land price signals highlight little interest from developers to supply housing.

Ideally, prices should form a basis of a reliable monitoring framework ahead of quantity based measures. The effects of (binding) policy interventions capitalise into prices almost instantly. The clearest signal as to whether housing policy has had an effect on the market will be a jump in relative prices for properties impacted by policy versus those that are not.⁶

Figure 3 demonstrates both the ability to construct reasonable price indices for monitoring purposes, and the value they can potentially have in identifying the immediate effects of policy. In this instructive example, prices of properties subject to a new upzoning policy *appear* to have jumped immediately following the policy announcement. Approaches such as this are the foundation for much of the empirical assessments of urban policy in New Zealand over the previous decade.

⁴New Zealand has taken a unique approach to this by requiring that at a minimum Councils in significant urban areas use ‘high’ growth projection scenarios, set by Statistics New Zealand, to establish sufficient capacity. This is far from a perfect solution, but it fundamentally demonstrates this to be a recognised issue when planning for housing supply. See here (<https://www.hud.govt.nz/our-work/going-for-housing-growth-programme>).

⁵Research has also shown the asymmetric effects on economic welfare between under and over-forecasting demand in planning processes. See Counsell (2025).

⁶Note that a relative price increase indicates that a policy binds; it is not a measure of reduced affordability. Upzoning can raise land prices on affected sites while lowering the land cost of each unit of housing.

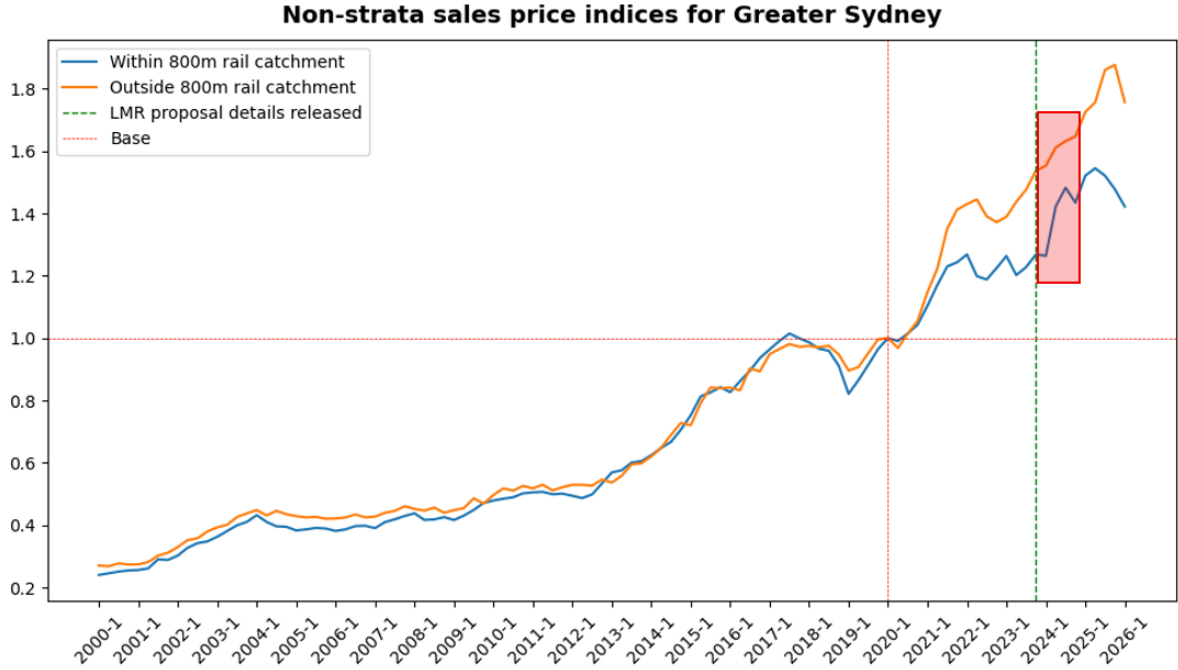


Figure 3: Case-Shiller type hybrid repeat-sales indices for non-strata property transactions within Greater Sydney. Highlighted section represents the period immediately following LMR announcements in December 2023.

Monitoring must also be wholly based on the evaluation against reasonable counterfactuals. The effects of policy should never be attempted to be identified through assessment of nominal measures alone. Yet, so much of the narrative against progressive planning reform unfortunately rests upon this type of analysis.⁷ Significant work has been undertaken in the urban economics literature over the past 5 years to develop empirical models for establishing robust counterfactual measures for which to evaluate policy against.⁸ Leveraging these methods and creating a standardised framework for robust housing policy evaluation must be of high priority.

The Commission also needs to be clear on exactly what the objective of monitoring is; “is it working?” is not an answerable question, but is too often exactly what is posed in policy. Presumably of most importance here is the question of whether housing costs are decreasing and, thus, whether housing affordability is increasing. The Commission should consider a dedicated research program into design of headline indicators and their practical relevance for the objectives of housing supply reform. These need to be robust to systematic influences and suitable for tracing effects relevant to housing supply policy alone. Again, there may be benefit in looking to the case of New Zealand to understand the range of options existing and potential options for this.⁹

3 Beyond feasibility modelling alone

The report supports commercially feasible capacity as a key approach to prioritising reform. However, the report provides little detail on what that means in practical terms other than it will follow from the interim report. Nor does it give any indication of how modelling needs to

⁷An illustrative example of this would be the evaluation of the effects of housing supply policy based on observation that nominal rents or housing prices continued to climb post intervention.

⁸This literature has been extensively cited within the report.

⁹For example, see *land cost to floor area* (LCFA) type measure as discussed in Cooper et al. (2026).

integrate within future policy development.

Feasibility modelling, while it can provide reasonable indications of the likely distribution of housing supply, is at best a partial equilibrium assessment enforcing strict assumptions on land prices, housing prices, and construction costs. It cannot by itself answer more fundamental dynamic city-wide questions such as where, based on trade-offs, households will choose to locate, where infrastructure demands will consequently be highest, and how prices respond. For these types of questions, more complex land use models are necessary.

Typically these types of models fall into the realm of land use and transport interaction models or spatial general equilibrium models. It is a missed opportunity that more centrally coordinated research has not been dedicated to the design and development of these models to support policy decisions in Australia. The models have wide applicability across housing, transport and infrastructure investment decisions. In the author's experience, few Australian cities have well developed strategic land use models and the resource dedicated to land use modelling pales in comparison to that provided to support strategic transport modelling programs.¹⁰

The report poses a series of broad open questions on the impacts of land use controls, the expected responses to reform, and the role of infrastructure. While these may be intended to solicit responses of known real-world examples, dedicated case studies can only ever go so far to support policy evaluation in complex systems; very quickly, a calibrated computational model is absolutely necessary to support our understanding of the dynamic effects of urban policy. If feasibility is to remain a key leading indicator for reform, it is essential that a simple standalone model is not assumed to be sufficient. Resource needs to also be directed to developing dynamic land use models which embed the foundational concept but provide significantly richer capability for policy analysis.¹¹

More broadly, urban economics and housing modelling capability needs to be expanded at the State and Commonwealth level. Even the most straightforward feasibility and capacity modelling processes can diverge notably between institutions and organisations producing estimates. These are not analytically complex problems to solve.

The problem is even more profound in the case of dynamic modelling. Across the majority of modelling projects, methods are frequently deemed proprietary and technical documentation and validation results are rarely published or made available.

When the ability to investigate, interrogate, and validate models is not available, the value of models in supporting decision making in public policy is lost. Government departments using modelling for policy development processes need to drive a higher level of quality and they need to be adequately resourced internally to have the capability to critically review modelling and use it correctly.

Modelling expertise is a specialised skill - it does not form part of the generalist policy analyst toolkit. Australia has remarkable depth in economic and econometric modelling, making ambitious projects and analysis not only possible, but also socially valuable. A clear priority needs to be the development of these skills through central functions and ensuring that policy teams at all levels of decision making have access to expert modelling resources.

¹⁰Note that the closest policy guidance for design and use of strategic land use modelling in Australia is in service of transport investment. See the Australian Transport Assessment and Planning (ATAP) guidelines here (<https://www.atap.gov.au/framework/integrated-transport-land-use-planning/index>).

¹¹There has been a significant amount of research into spatial equilibrium models to support exactly this type of analysis. For example, see Ahlfeldt et al. (2015), Hörcher and Graham (2026), Rollet (2025) and examples within.

4 Accountability must reflect where the costs and benefits lie

The report broadly requests information relating to the structure of governance and accountability surrounding housing and infrastructure and correctly identifies the conflict that arises from several tiers of government. It is, however, important to reiterate the high-level concepts within the context of accountability and delivery.

Housing policy is complicated by two things. First, responsibility is spread across several levels of governance. Second, the costs are often localised while the benefits spread widely.

The benefits are broad and diffuse: lower prices and rents across a city, better access to jobs and the productivity gains that come with it, and homes for future residents who do not yet live in an area.

The costs are concentrated and visible: construction disruption, change to the local built form, and pressure on local streets and services. They fall on existing residents, who are organised and vote locally.

Thus, where a decision sits with the level of government that bears the concentrated costs but captures few of the diffuse benefits, the outcome is predictable: housing is likely to be under-supplied. The costs may come in the form of direct infrastructure/fiscal costs or perceived costs such as negative impacts of density (i.e., the ‘homevoter’ effects described in Fischel (2001)). This creates a conflict that must be managed by allocating responsibility and accountability primarily to the level of government that bears the (majority of the) benefits.

Practically, this can have several implications. First, decision-makers who retain a local remit cannot have veto powers to undermine outcomes which produce wider benefits. For example: trade-offs between area protection and housing density cannot be made on a discretionary basis by a local authority. Such decisions instead need to pass a quantitative net benefits assessment. Where the benefits outweigh the costs, then a case can reasonably be made for the restriction of density.

Second, concentrated costs need to be compensated rather than ignored. Councils absorbing growth face real infrastructure and service demands which cannot realistically be funded in the short term. Commonwealth or State policy which forces growth on the basis of wider economic benefits must support funding the costs of delivery of growth at the local level.

Third, the diffuse benefits and outcomes need to be made visible, and an authority independent of the local decision-maker must be responsible for their assessment. Policy goals (or targets; be they quantum or pricing based) are only realised through accountability and enforcement; their measure of success must be the outcome itself and not simply the performative process. Policy objectives and outcomes are unlikely to be achieved organically when costs are concrete and personal, while benefits are statistical and counterfactual.

The implication here is that while there needs to be fairness, there also needs to be enforcement and consequence. Compliance with the spirit and intent of policy along with the realisation of outcomes needs to be evaluated independently. A model which Australia should consider at state level is the recently announced statutory Urban Land Market Officer role in New Zealand. At a high-level the role is responsible for assessing the suitability of planning decisions made at the local level to deliver competitive urban land markets within New Zealand.¹²

¹²For further detail on the Urban Land Market Officer role, see here (<https://www.beehive.govt.nz/release/achieving-competitive-urban-land-markets-new-system>).

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