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Executive Summary

STRENGTHENING ECONOMIC CASES FOR HOUSING POLICIES

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Strengthening Economic Cases for Housing Policies

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Strengthening Cases in summary

This report was commissioned with the primary aim of modelling how housing outcomes impact economic growth and productivity, with a particular focus on metropolitan regions. Selected prima facie cases for housing effects on productivity, previously identified in the 2018 report *Better Economic Cases for Housing Policies*, were modelled to identify the likely scale of key economic impacts. The Sydney metropolitan area, in the wider contexts of New South Wales (NSW) and the rest of Australia, was used as the laboratory for the new housing impact modelling approach. The empirical findings will be of direct relevance to NSW housing and government sectors.

Key findings

- The results confirm a strong impact of selected housing outcomes on productivity growth.** The findings should give momentum to housing sector bodies to make better economic cases, and to government departments to recognise and calibrate such effects in making investment policy decisions.
- Housing as economic infrastructure should be viewed and assessed in the same light as transport investment.** With the scale of investment required to address housing affordability issues in the dynamic metropolitan areas of Australia now beyond the reach of 'housing business as usual' approaches, co-planning of housing and transport investment in shaping places with better housing, working and living outcomes deserves new attention.
- The productivity modelling exercise is based on an Economic Impact Assessment (EIA) which reveals **strong, positive productivity effects from investing in better housing outcomes** over a 40-year timescale that reduce commuting times and extend access to a wider set of labour market opportunities.
- The results show significant direct, or 'first round', productivity impacts across the city:**
 - \$2.26B** (NPV) in travel time savings, of which **\$1.129B** is used for travel-to-work journeys and increases the supply of labour; and
 - \$17.57B** (NPV) in human capital uplift in terms of added household incomes associated with better job choices as a result of investing in affordable housing in more accessible locations.
- Indirect, or 'second-round', effects that arise from these major first round gains are also substantial and are estimated at **\$1.36B** (NPV) for travel time savings to be available for productive work and **\$12.23B** (NPV) gains from more efficient labour market matching.
- These direct and indirect benefits are estimated to come at a cost to government of **\$7.27B** (NPV).
- The weight of productivity gains identified suggest an economic performance impact that compares very favourably to most other infrastructure investments, including transport investments.
- Although currently available economic models for Australian states and cities cannot adequately assess the economic impacts of higher housing costs, the housing cost burden experienced by many renters, and newer owners, is now so far in excess of 30% of household incomes that household tenure, consumption and savings choices are undoubtedly being impacted. For renters earning up to the median income in Sydney, the excess of rent payments over a 30% contribution averaged just under **\$6000** per household p/a, amounting to **\$1.8B** p/a for NSW and absorbing an estimated **\$1.4B** of Commonwealth rent support.

Importantly, the report does not examine the detailed aspects of policy design and delivery, and the policy measures included are illustrative ways of indicating that the proposed change scenarios will have wider economic costs and benefits that need to be modelled. Nevertheless, **the research team views the findings as an important step forward in strengthening economic cases for housing.** There remains much scope to develop wider and deeper insights on housing and productivity impacts, and to get to grips with how better housing outcomes affect the trajectories of the lives of individuals and the long-term wealth of cities.

How did we reach these conclusions?

Research on urban economies stresses the importance of ‘agglomeration economies’ in raising growth and productivity. These economies arise from density and proximity inducing sharing, matching and learning effects that allow more effective labour market specialisation and innovation. Productivity increases then raise incomes and consumption, stimulating further ‘dense’ growth. This framework, and estimates of effects, are widely used in assessing labour market and transport programs within metropolitan areas but have not previously been explored in residential infrastructure investment analysis. This study is a novel attempt to fill that gap for Sydney and NSW, illustrating a basis for work elsewhere.

The research team, in conjunction with the Project Steering Group, reviewed the results of earlier research and decided to focus modelling on four areas with prima facie cases for housing productivity effects:

- The reduced travel times arising from living closer to work;
- Better matching to a wider range of jobs by moving closer to job dense locations;
- Phasing investment programmes to reduce construction sector instability; and
- The consumption and investment effects of rent burdens exceeding 30% of incomes.

These effects were explored using a Computable General Equilibrium (**CGE**) model of the economy adapted to the scales of metropolitan Sydney, NSW and the rest of Australia.

The **Technical Appendix** of the main report outlines the detailed data and approaches used. The broad logic of the research involved:

- an illustrative better housing outcomes (**BHO**) scenario for affordable housing in more accessible locations that reduced travel to work time when compared to the business as usual (**BAU**) scenario of less accessible locations across the city;

- identifying how productivity gains and increased labour supply effects raised the disposable incomes of households moving to BHO localities; and
- modelling the impact of these income ‘shocks’ for further income, growth and productivity in Sydney, NSW and Australia to 2059.

Moving from BAU to BHO: key effects identified

The study produced policy-relevant data by estimating the effects on incomes from developing affordable housing in BHO localities, and through CGE modelling of the wider effects of these income and productivity gains. BAU localities were selected in less well-serviced locations that were also more remote from jobs. The BHO localities were located on residentially-zoned land (R3, R4) within 800 metres of major hospital precincts (as a proxy for wider service accessibility), with improved access to job density, and with a simple annual grant subsidy of \$8,500 p/a for 10 years used to enhance affordability¹

It was assumed that the BHO opportunities are to be targeted at residents with a socio-economic profile equivalent to the BAU areas (renters on incomes below or equal to the NSW median income).

Travel time effects

The shift from BAU to BHO locations led to:

- Reductions in travel to work times for both private and public transport users: private travel times reduce from 60-80 to 50-60 minutes, while public transit time drops from 80-100 to 65-75 minutes;
- Limited Travel Mode Switch, with BHO reducing private and raising public transit uses; and
- Travel Time Savings estimated at \$2554 p/a per worker, or \$1277 of additional labour supply per worker, and an estimated total gain of \$2.26B Net Present Value (**NPV**).

¹ It is important to stress that the study was not tasked with designing an optimal subsidy instrument. The aim was to identify productivity effects. The role of the subsidy in the study is to enhance affordability but also to introduce to the CGE modelling a cost to the government sector of providing BHO. This allows a broad indication of the scale of economic impacts benefits of BHO to the costs involved in securing them.

Wage effects

Bringing workers closer to more jobs, and firms closer to more workers creates matching gains. Employers pay more for specific, skilled workers, while workers seek out employers who need their skills. The research evidence suggests that for a given skill-age-gender group, wages are higher for home locations closer to jobs.

After standardising for skills, age and gender, moving from a BAU to a BHO scenario means:

- Per annum incomes rise (the higher the skill group, the bigger the rise);
- Workers with higher degrees earn an additional \$41,170 p/a, with a lifetime NPV of \$425,000; and
- Unqualified workers earn an extra \$11,793 p/a, with a lifetime NPV of \$56,000.

The overall effects estimated are substantial. In reality, some lags in adjustment or incomplete take up of potential gains may occur, but the effects are still likely to be substantial.

The effect of delivering a counter-cyclical housing program

Productivity may be impacted not just by what housing is produced and where, but also by when it is delivered. For example, there are suggestions (but little evidence) that a counter-cyclical delivery of subsidised housing investments that produces housing ahead of schedule can stabilise industry structure and training efforts, and also benefit from lower materials prices in the downswing. Exploration of the impact of bringing forward an investment that would otherwise have occurred in a later period on the the construction sector for NSW revealed that:

- The sector was of substantial scale, producing some 7.9% of NSW Gross Value Add (GVA);
- That share had increased marginally over the two decades to 2018 as construction sector GVA growth outpaced the wider economy;
- The construction sector is cyclically less stable than the rest of the NSW economy; and
- Evidence for lower materials costs and other downswing effects was weak and inconsistent over time.

Consumption and investment effects

High burdens of housing payments in relation to

incomes reduces consumption of other goods and diminishes savings and investments, as well as reducing home-ownership and asset accumulation for early life-cycle households. For rental households in NSW, housed under BAU arrangements, an estimate was made of the income spent on rent above the standard 'acceptable' threshold level of 30% of income. This revealed:

- NSW renters up to the median income 'overspend' on rent by an average of \$5,893 p/a;
- The total, indicative annual 'overspend' on rent in NSW is approximately \$1.8B; and
- These high rents in NSW also absorb Commonwealth Rent Assistance of approximately \$1.4B.

These payment burdens have major implications for the distribution of income and wealth in Sydney and NSW, and there is a strong prima facie case that they impact economic and productivity outcomes now and in the future. The research team believes that reducing them, by making housing more affordable, would enhance productivity. However, the effects cannot be modelled within a CGE framework, so they play no role in driving the study estimates of economic impacts from providing BHO. The overall estimates of benefits are therefore likely to be conservative.

CGE modelling: major economic impacts identified

After identifying likely development costs and defining program target groups (median and below-median income rental households in NSW), EIAs were made for a BHO building program of 125,000 new affordable dwellings in metropolitan Sydney over a 10 year period, with an \$8,500 subsidy per dwelling per year for a period of 15 years.

The CGE model was adapted to consider the geography of the impacts of the housing market intervention within the Sydney metropolitan area, by disaggregating Australia into three distinct economic regions: the Sydney Greater Capital City Statistical Area ²; the remainder of NSW; and the remainder of Australia.

2 As defined by the Australian Statistical Geography Standard, ABS Cat. 1270.0.55.001.

The BHO scenario involves three key 'shocks' or drivers to model for impact:

- travel time to work savings used in productive labour;
- improvements to the human capital stock arising from access to better jobs; and
- government spending on the policy options.

The effects of implementing 'shovel ready' projects in order to capitalise on and mitigate cycles in the construction sector were analysed.

These shocks and influences were entered into the model in a series of incremental steps, or 'rounds', to illustrate the relative impacts of each shock on the overall economic productivity of Sydney. Effects were modelled for a programme of 12,500 BHO homes per annum over the next decade in Sydney. The results included (i) travel time savings effects – from households living closer to work places and other destinations; (ii) impacts on human capital - the net benefits to households in term of the impact on life-time earning potentials from living closer to a wider range of job opportunities and the flow-on effects this has overall city productivity; (iii) and the cost of government policies (the costs of the BHO investment measured as NPV over 40 years). The results show significant direct impacts:

- **\$2.26B** (NPV) in travel time savings, of which **\$1.129B** is used for travel-to-work journeys and increases the supply of labour;
- **\$17.57B** (NPV) in human capital uplift associated with better job choices from BHO investments; and
- a cost to government of **\$7.27B** (NPV).

In addition:

- Indirect, or 'second-round', effects that arise from these major first round gains are also substantial and are estimated at **\$1.36B** (NPV) for travel time savings to be available for productive work and **\$12.23B** (NPV) gains in human capital outcomes from more efficient labour market matching.
- The strategic rescheduling of the construction of 2,500 dwellings brought forward to take advantage of a temporary, hypothetical downturn in the housing construction market in 2024 has a small saving of **\$1M** in policy costs; and

- A 20% increase in the assumed policy cost still results in a significant, large NPV increase in household consumption of **\$14.7B**.

The bulk of the economy wide effects are (unsurprisingly) felt in the Sydney region, but the rest of NSW and the Australia benefit indirectly from improved conditions in Sydney through the trade of goods and services.

What next?

The relative scale of the impacts of the productivity dividend (human capital accumulation), the increase in effective labour supply (productive travel time savings), and the funding (policy incentive) are clear. The better housing outcomes analysed here, largely arising from better residential location outcomes, have a strong positive effect on growth and productivity in the Sydney economy. Affordable housing programmes can have growth effects and these effects should be explicitly considered and calibrated in state policy-making. It is clear that the effects of high housing costs need further scrutiny in a different analytical framework and there are other strong cases that housing outcomes impact human capital formation, particularly for low income children and young people. A fuller audit of housing-productivity effects will need steady, long term investigation. At the same time, the evolution of the economic impact assessment conducted here into a wider cost-benefit analysis will require extensive and challenging research to identify the social and environmental benefits of better housing outcomes. The big step taken with this study is far from the end of work in this area.