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**CHANGING THE TAXATION
REGIME FOR INVESTORS IN THE
HOUSING MARKET**

BRIEFING REPORT FOR MASTER BUILDERS AUSTRALIA

APRIL 2018

SUMMARY REPORT

- Housing affordability, particularly for first home buyers, is an issue that has generated considerable policy debate in Australia.
- There is a general consensus that due to declining rates of home ownership amongst young people that policy action is required, with a range of proposals being considered.
- A policy proposal put forward by the Australian Labor Party (ALP)¹ is aimed at addressing this issue through two key mechanisms:
 - Limit negative gearing provisions to new housing (with grandfathering for existing investment properties); and
 - Halve the capital gains tax (CGT) discount for assets held longer than 12 months from 50 per cent to 25 per cent (with grandfathering existing investment properties).
- While the ALP policy does contain other elements in relation to other forms of investment, such as shares and small business investment, the proposals related to the taxation regime for investors in the housing market are fundamental.
- In effect, the ALP policy is aimed addressing *two key policy issues*: housing affordability and a deteriorating Commonwealth budget position. In simple terms:
 - The overall increase in taxation of investors in the housing market will increase the government revenue; and
 - With respect to housing affordability, the policy proposal is a demand side measure aimed at discouraging investors from the housing market to the benefit of owner-occupiers (particularly first home buyers).
- There is little by way of detailed analysis of the proposed ALP policy in the public domain, although some related analysis can be found in:
 - Hot property: negative gearing and capital gains tax reform published by the Grattan Institute in 2016.²

¹ See <https://www.alp.org.au/negativegearing>, accessed 9 March 2018

² Daley, J., Wood, D., and Parsonage, H. 2016, Hot property: negative gearing and capital gains tax reform, Grattan Institute (referred to in this paper as Grattan Institute (2016)).

- Economic Impact of Limiting the Tax Deductibility of Negatively Geared Residential Investment Properties published by BIS Shrapnel in March 2016.³
- Modelling the marginal excess burden of changes to negative gearing on residential property undertaken by Independent Economics in 2014.⁴
- While each of these papers considers certain elements of the proposed ALP policy, it is unclear what the overall economic impacts of such a policy.
 - In terms of new dwelling construction, the BIS Shrapnel analysis (which did not consider changes to CGT) concluded that the impacts would be large, while the Grattan Institute paper concluded that the impacts would be negligible.
- What is known is that the policy will raise the effective tax on investing in housing. Those investing in existing homes will face higher increases in taxes than those investing in new homes as they will lose both negative gearing provisions and face a halving of the CGT discount. Those investing in new homes will experience a halving of the CGT discount.
 - The overall effects of the policy, given the policy affects different areas of the housing market differently cannot be estimated without the construction of a highly detailed and specific economic modelling framework.
- The available literature in relation to the likely impact of changes to the taxation regime for investors in the housing market are inconsistent (to say the least). In this context, the literature can be thought of as covering a spectrum:
 - At one end of the spectrum, the Grattan 2016 paper expresses a view that any changes to the taxation regime for investors in the housing market will have minimal effects on the economy. Ultimately, this line of thinking is summarised on Page 30 of that paper:

Ultimately people who invest in property take into account a host of factors, including rental returns, risk perception, familiarity with the asset class, and ability to obtain bank finance. Modest changes in tax treatment will not affect their decisions much.

³ BIS Shrapnel 2016, Economic Impact of Limiting the Tax Deductibility of Negatively Geared Residential Investment Properties.

⁴ Independent Economics 2014, Economic Impacts of Negative Gearing on Residential Property

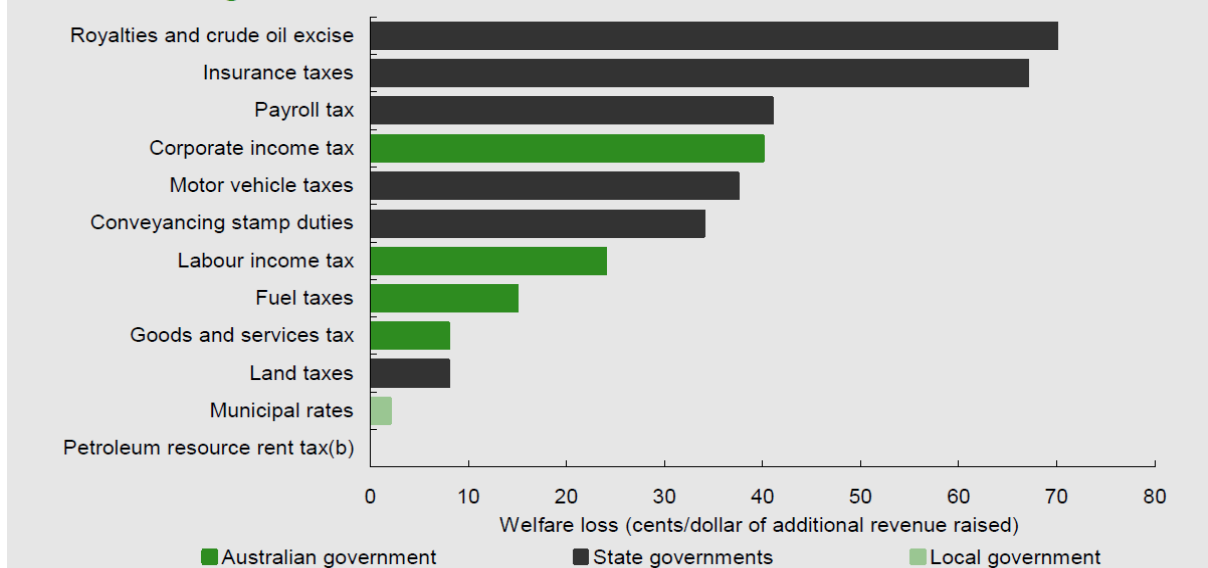
- Independent Economics estimated that changes to negative gearing imposed a cost on the economy of 23 cent in every dollar collected. While this analysis is not aligned to the proposed changes being considered by the Labor Party, this kind of analysis does indicate that any changes to the taxation regime for investors in the housing market could impose some costs on the Australian economy.
- At the upper end of the spectrum, the BIS Shrapnel report estimated significant economic impacts associated with changes to the taxation regime for investors in the housing market. Again, this report did not model the entire package under consideration, that said the economic impacts were considerably higher than those produced by Independent Economics.

Our modelling approach

- The approach undertaken in this assessment is to consider the proposed ALP policy change by considering estimates of the marginal excess burden implied by the increased tax burden on housing.
- The level of tax raised by the policy change is calibrated to the findings of the Grattan Institute (2016). This report suggests that the changes will raise \$1.5 billion owing to capital gains changes relating to gains on real estate, and \$2 billion owing to negative gearing on property.
- Marginal excess burden considers the economic cost of raising taxation. The most recent estimation of marginal excess burden of a range of Australian taxes was undertaken in the Henry Tax Review, and is summarised in the figure reproduced from that Review below.⁵

⁵ See

http://taxreview.treasury.gov.au/content/downloads/final_report_part_1/00_AFTS_final_report_consolidated.pdf, accessed on 9 March 2018.

Chart 1.5: Marginal welfare loss from a small increase in selected Australian taxes^(a)

- The figure above shows that the marginal excess burden varies significantly across the different kinds of taxes levied on the economy.
 - The most inefficient taxes were estimated for Royalties and crude oil excise and Insurance taxes. These taxes generated welfare losses of around 65 to 70 cents per dollar of taxation raised.
 - The most efficient taxes estimated were the Petroleum resource rent tax (zero cost) and Municipal rates.
- In the estimation of the marginal excess burden of taxation, those taxes that impose higher economic costs do so because they have a greater impact, for a given dollar of taxation raised, on the behaviour of the economy.
- For example, the most inefficient taxes are those that reduce international competitiveness or distort investment decisions.
- If we consider the impacts of the ALP policy on the housing market, the marginal excess burden is a reasonable lens through which to view potential economic impacts because:
 - the ALP proposal does imply an increase in taxation for investors in the housing market;
 - it is reasonable to expect that an increase in taxation will impose some cost to the economy; and
 - a higher economic cost is likely to manifest itself in a reduction in investment in new houses.

- In the case of the proposed changes from the ALP, it is unclear what the marginal excess burden of such a tax would be given the complex interactions involved.
 - The Grattan Institute (2016) concluded that the impact of changing the taxation regime on the investor housing market would have negligible impacts on the economy. This indicates a relatively low marginal excess burden of these taxation arrangements.
 - On the other hand, the BIS Shrapnel report demonstrated a relatively large impact, suggesting a high marginal excess burden.
- Our approach is to consider the impacts using the same kind of modelling technique adopted in the Henry Review (computable general equilibrium (CGE) modelling), and to explore the economic impacts on the construction sector of raising taxes.
- Using the analysis from the Henry Tax Review, we establish a plausible range of the marginal excess burden that might result from the proposed tax changes for housing investors.
 - At the lower end, we adopt the marginal excess burden from the relatively efficiency Land tax, calculated at 8 cents per dollar raised. We refer to this as the “More efficient” scenario below.
 - This is broadly consistent to the position taken by the Grattan Institute in terms of the overall impacts of changing the taxation regime for investors in the housing market.
 - At the upper end, we adopt the figure for Conveyancing stamp duties, calculated at 34 cents per dollar raised. We refer to this as the “Less efficient” scenario below.
 - This is more broadly consistent with the work undertaken by Independent Economics (albeit a higher absolute marginal excess burden) and well below the overall costs estimated by BIS Shrapnel.
 - This marginal excess burden rate is also consistent with the proposed changes to the taxation regime for investors in the housing market being categorised as ‘transaction’ taxes, which are some of the least efficient taxes the government can levy.
- Our in-house, CGE model is then calibrated with these marginal excess burden figures to ensure the overall welfare costs are consistent with these figures (welfare in the CGE model is measured by real gross national income), and the model is then used to estimate the overall impact on construction activity implied by these assumptions.

Results

- At the national level the impacts of the implementation of this policy reform is for reduction in welfare, construction activity and aggregate employment under both scenarios.
 - These projected impacts are directly linked to the assumptions regarding the marginal excess burden of the tax – the higher the marginal excess burden the higher the projected welfare costs and reduction in housing construction.
- The results presented in Tables 1 and 2 describe the deviation from the baseline or “business as usual” in absolute terms taken as an annual average over a five year modelling horizon for construction output and employment.
 - For example, under the More efficient scenario, construction sector output in NSW is projected to be \$177 million lower in real terms (2017 dollars) than under business as usual in year 5.
 - Nationally, under the More efficient scenario, the output of the construction sector is estimated to fall by \$425 million dollars in real terms (2017 dollars), and construction sector employment by just over 1,100 full time equivalent (FTE) employees in year 5.
 - The adverse impacts resulting from changing the taxation regime for investors in the housing market are highest in Year 1 of the scenario. This is the first year in which the taxation changes occur and imply the greatest change.

Table 1: Projected construction output impacts under the More efficient scenario, \$m[^]

<i>Region</i>	<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>	<i>Year 4</i>	<i>Year 5</i>
<i>NSW</i>	-329	-273	-232	-201	-177
<i>VIC</i>	-171	-146	-126	-111	-100
<i>QLD</i>	-127	-107	-93	-82	-73
<i>Rest of Australia</i>	-90	-86	-82	-78	-75
<i>National</i>	-718	-612	-533	-472	-425

Source: Cadence Economics. [^] Real 2017 dollars (figures may not add due to rounding)

Table 2: Projected construction employment impacts under the More efficient scenario, FTE

Region	Year 1	Year 2	Year 3	Year 4	Year 5
NSW	-848	-696	-587	-505	-443
VIC	-486	-408	-351	-307	-273
QLD	-396	-329	-282	-247	-220
Rest of Australia	-256	-238	-221	-206	-192
National	-1,985	-1,671	-1,441	-1,265	-1,128

Source: Cadence Economics. Figures may not add due to rounding

- Tables 3 and 4 present the equivalent economic impacts under the Less efficient scenario. Due to the relative inefficiency of the proposed tax changes, the adverse economic impacts on construction output and employment are more pronounced.
 - For example, under the Less efficient scenario, construction sector output in NSW is projected to be \$756 million lower in real terms (2017 dollars) than under business as usual in year 5.
 - Nationally, under the Less efficient scenario, the output of the construction sector is estimated to fall by just over \$1.8 billion dollars in real terms (2017 dollars), and construction sector employment by just over 4,800 full time equivalent (FTE) employees in year 5.
 - These results are presented in chart form in Attachment 2.

Table 3: Projected construction output impacts under the Less efficient scenario, \$m[^]

Region	Year 1	Year 2	Year 3	Year 4	Year 5
NSW	-1,399	-1,163	-989	-857	-756
VIC	-728	-620	-539	-475	-425
QLD	-539	-455	-395	-348	-312
Rest of Australia	-384	-367	-349	-333	-317
National	-3,049	-2,605	-2,272	-2,014	-1,812

Source: Cadence Economics. [^] Real 2017 dollars (figures may not add due to rounding)

Table 4: Projected total employment impacts under the Less efficient scenario, FTE

Region	Year 1	Year 2	Year 3	Year 4	Year 5
NSW	-3,603	-2,963	-2,502	-2,155	-1,890
VIC	-2,064	-1,737	-1,495	-1,308	-1,162
QLD	-1,681	-1,401	-1,202	-1,053	-938
Rest of Australia	-1,088	-1,009	-938	-875	-818
National	-8,436	-7,110	-6,136	-5,390	-4,807

Source: Cadence Economics. Figures may not add due to rounding

- In a recently released report titled “Housing affordability: re-imagining the Australian dream”⁶ the Grattan Institute provides estimates of supply elasticities for houses and apartments that, combined with and construction statistics from the Australian Bureau of Statistics, have enabled us to decompose the CGE modelling results to estimate the reduction in annual dwelling completions by dwelling type and region as per the following tables.
 - Nationally, housing starts are projected to fall by 294 nationally under the More efficient scenario in year 5, with the greatest reduction in Greater Sydney (Table 5).
 - Apartment starts are projected to fall by 1,231 in year 5 (Table 6). The relatively high reduction in starts for apartments compared with housing reflects a higher sensitivity of apartment construction (a higher supply elasticity) compared with housing.

Table 5: Projected impacts on the number of housing starts, More efficient scenario

<i>Region (GCCSA)</i>	<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>	<i>Year 4</i>	<i>Year 5</i>
<i>Greater Sydney</i>	-156	-130	-110	-95	-84
<i>Rest of NSW</i>	-46	-39	-33	-28	-25
<i>Greater Melbourne</i>	-102	-87	-75	-66	-59
<i>Rest of Vic.</i>	-19	-16	-14	-12	-11
<i>Greater Brisbane</i>	-57	-48	-41	-37	-33
<i>Rest of Qld</i>	-41	-35	-30	-27	-24
<i>Rest of Australia</i>	-75	-71	-65	-62	-57
<i>National</i>	-497	-424	-369	-327	-294

Source: Cadence Economics. Figures may not add due to rounding

⁶ Daley, J., Coates, B., and Wiltshire, T. 2018. Housing affordability: re-imagining the Australian dream. Grattan Institute.

Table 6: Projected impacts on the number of apartment starts, More efficient scenario

<i>Region (GCCSA)</i>	<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>	<i>Year 4</i>	<i>Year 5</i>
<i>Greater Sydney</i>	-673	-558	-474	-411	-362
<i>Rest of NSW</i>	-200	-166	-141	-122	-108
<i>Greater Melbourne</i>	-421	-358	-310	-274	-245
<i>Rest of Vic.</i>	-78	-66	-58	-51	-45
<i>Greater Brisbane</i>	-164	-138	-120	-106	-95
<i>Rest of Qld</i>	-119	-101	-87	-77	-69
<i>Rest of Australia</i>	-427	-388	-356	-329	-307
<i>National</i>	-2,080	-1,775	-1,547	-1,370	-1,231

Source: Cadence Economics. Figures may not add due to rounding

- Under the Less efficient scenario, summarised in Tables 7 and 8, the adverse impacts on housing and apartment starts is considerably higher than under the More efficient scenario.
 - Nationally, housing starts are projected to fall by 1,252 nationally under the More efficient scenario in year 5.
 - Apartment starts are projected to fall by 5,250 in year 5.

Table 7: Projected impacts on the number of housing starts, Less efficient scenario

<i>Region (GCCSA)</i>	<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>	<i>Year 4</i>	<i>Year 5</i>
<i>Greater Sydney</i>	-664	-552	-470	-407	-359
<i>Rest of NSW</i>	-197	-164	-140	-121	-107
<i>Greater Melbourne</i>	-433	-369	-321	-283	-253
<i>Rest of Vic.</i>	-81	-69	-60	-53	-47
<i>Greater Brisbane</i>	-241	-204	-176	-156	-140
<i>Rest of Qld</i>	-176	-148	-129	-114	-102
<i>Rest of Australia</i>	-322	-297	-279	-260	-245
<i>National</i>	-2,114	-1,804	-1,573	-1,393	-1,252

Source: Cadence Economics. Figures may not add due to rounding

Table 8: Projected impacts on the number of apartment starts, Less efficient scenario

<i>Region (GCCSA)</i>	<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>	<i>Year 4</i>	<i>Year 5</i>
<i>Greater Sydney</i>	-2,861	-2,378	-2,024	-1,754	-1,547
<i>Rest of NSW</i>	-850	-707	-601	-521	-460
<i>Greater Melbourne</i>	-1,787	-1,522	-1,322	-1,166	-1,043
<i>Rest of Vic.</i>	-332	-283	-246	-217	-194
<i>Greater Brisbane</i>	-695	-588	-509	-450	-403
<i>Rest of Qld</i>	-507	-428	-371	-328	-294
<i>Rest of Australia</i>	-1,807	-1,648	-1,516	-1,404	-1,309
<i>National</i>	-8,840	-7,555	-6,590	-5,839	-5,250

Source: Cadence Economics. Figures may not add due to rounding

- Estimates of changes in alteration and addition activity were also undertaken, however the impacts were determined to be relatively small compared to changes in house and apartment construction, with these changes comprising between 1 and 10 per cent of total activity change depending on the state or territory.
 - The relatively low impacts on alterations and additions reflects the historical stability in this market segment. Historical data indicates that activity in this segment of the market is relatively independent of activity in new dwelling construction.

General reliance restriction

This report is only for the use of Master Builders Australia. It was prepared for the purpose of estimating the economic impacts of changes to the taxation regime for investors in the housing market. You should not use the advice for any other purpose. This report should not be used or relied upon by anyone else and we accept no duty of care to any other person or entity. Due to the uncertain nature of economic data and forecasting, Cadence Economics does not warrant the completeness or accuracy of the analysis or estimates provided in this report.

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Attachment 1: CEGEM

The estimates in this report are based on the Cadence Economics General Equilibrium Model (CEGEM). CEGEM is an applied Computable General Equilibrium (CGE) model. A description of the model is presented in Box 1.

Australia has a long history of using applied CGE modelling to inform public policy dating back to the Industry Assistance Commission's use of the ORANI model in the debate around tariff protection in the early 1980s.

In the context of considering policy issues with widespread economic consequences, CGE modelling represents the standard approach adopted by central agencies within government. The main reason given for adopting CGE modelling is the ability of such models to account for resource constraints, particularly in the labour market, which is a critical issue when considering the economic impacts of defence procurement in Australia.

Box 1: An overview of the CEGEM model

CEGEM is a multi-commodity, multi-region, dynamic model of the world economy. Like all economic models, CEGEM is based on a range of assumptions, parameters and data that constitute an approximation to the working structure of an economy. Its construction has drawn on the key features of other economic models such as the global economic framework underpinning models such as GTAP and GTEM, with state and regional modelling frameworks such as Monash-MMRF and TERM.

Labour, capital, land and a natural resource comprise the four factors of production. On a year-by-year basis, capital and labour are mobile between sectors, while land is mobile across agriculture. The natural resource is specific to mining and is not mobile.

A representative household in each region owns all factors of production. This representative household receives all factor payments, tax revenue and interregional transfers. The household also determines the allocation of income between household consumption, government consumption and savings.

Capital in each region of the model accumulates by investment less depreciation in each period. Capital is mobile internationally in CEGEM where global investment equals global savings. Global savings are made available to invest across regions. Rates of return can differ to reflect region specific differences in risk premiums.

The model assumes labour markets operate in a model where employment and wages adjust in each year so that, for example, in the case of an increase in the demand for labour, the real wage rate increases in proportion to the increase in employment from its base case forecast level.

CEGEM determines regional supplies and demands of commodities through optimising behaviour of agents in perfectly competitive markets using constant returns to scale technologies. Under these assumptions, prices are set to cover costs and firms earn zero pure profits, with all returns paid to primary factors. This implies that changes in output prices are determined by changes in input prices of materials and primary factors.

The advantage of a global model such as CEGEM is that it accounts for bilateral trade flows of all commodities between regions. Goods are imperfect substitutes, implemented through the Armington assumption. The

model does not require the regional current account to be in balance as the capital account can adjust to maintain balance of payments equilibrium.

Base data

The starting point for the base data in CEGEM is the global database produced by the Global Trade Analysis Project (GTAP). This database is comprised of 140 country and regional groups and 57 production sectors. The Australian component of this database was supplied by the Productivity Commission, and is based on Australian input-output tables produced by the Australian Bureau of Statistics (ABS). For the purposes of this exercise, the database has been aggregated to the 18 sectors shown in Table 9.

CEGEM is a model with customised regional detail. It models each region as an economy in its own right, with region-specific prices, region-specific consumers, region-specific industries, and so on. For this exercise, the regions included in the model are Victoria, New South Wales, Queensland, Western Australia, South Australia, Tasmania, Rest of Australia and Rest of the World.

Table 9: Sectors and Regions represented in CEGEM

Number	Sector	Number	Region
1	Agriculture	1	New South Wales (inc ACT)
2	Coal	2	Victoria
3	Oil	3	Queensland
4	Gas	4	Western Australia
5	Other minerals	5	South Australia
6	Processed Foods	6	Tasmania
7	Manufacturing	7	Rest of Australia
8	Electricity	8	Rest of World
9	Water		
10	Construction		
11	Trade		
12	Transport		
13	Communications		
14	Financial services		
15	Other business services		
16	Recreational services		
17	Government services		

Dynamics

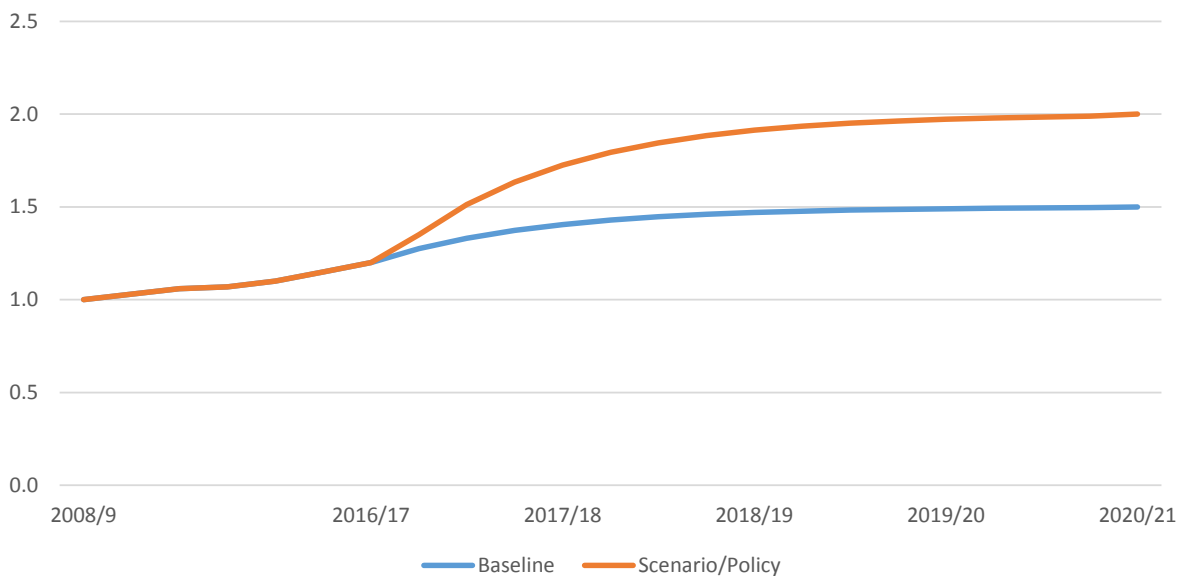
CEGEM is a recursive dynamic model that solves year-on-year over a specified timeframe. The model is then used to project the relationship between variables under different scenarios, or states, over a predefined period. This is illustrated in Figure 1. This shows the baseline scenario,

which forms the starting point for the analysis. The model is solved year-by-year from 2016/17 to a predetermined end year (in this case 2020/21).

The variable represented on the vertical axis of Figure 1 (real GDP, for example, and similarly for various other economic indicators) has been converted to an index (= 1.0 in 2016/17) projected to increase by 2020/21.

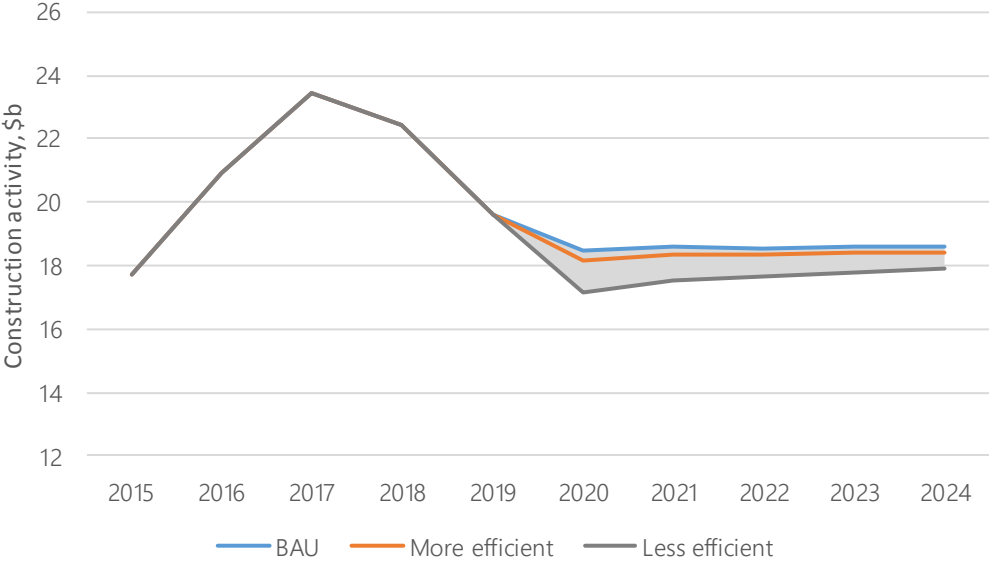
Set against the baseline scenario is a policy scenario (the future path for the economy with all else held equal, but with (say) the specifications of the taxation reform imposed). This scenario represents the outlook for the economy with a different policy imposed compared with the baseline. That results in a new projection of the path of the variable over the simulation time period. The impacts of the policy change are the deviation (in levels, that is, $GDP_{Policy} - GDP_{Baseline}$) between the policy and baseline scenarios for that variable at time T. It is important to note that the differences between the baseline and policy scenario are tracked over the entire timeframe of the simulation.

Figure 1: Illustrative dynamic scenarios using CEGEM



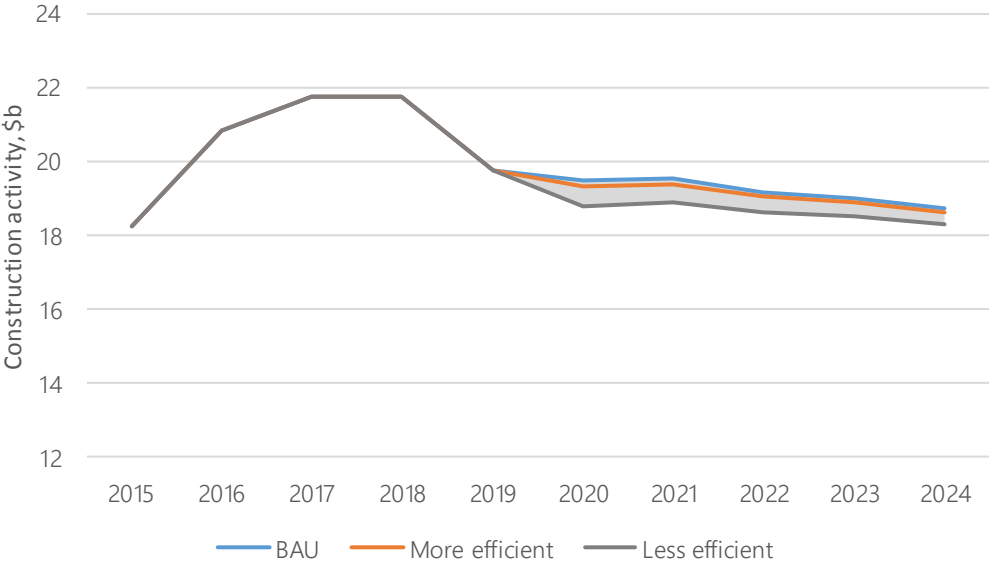
Attachment 2: Construction impacts

Figure 2: Construction activity, NSW



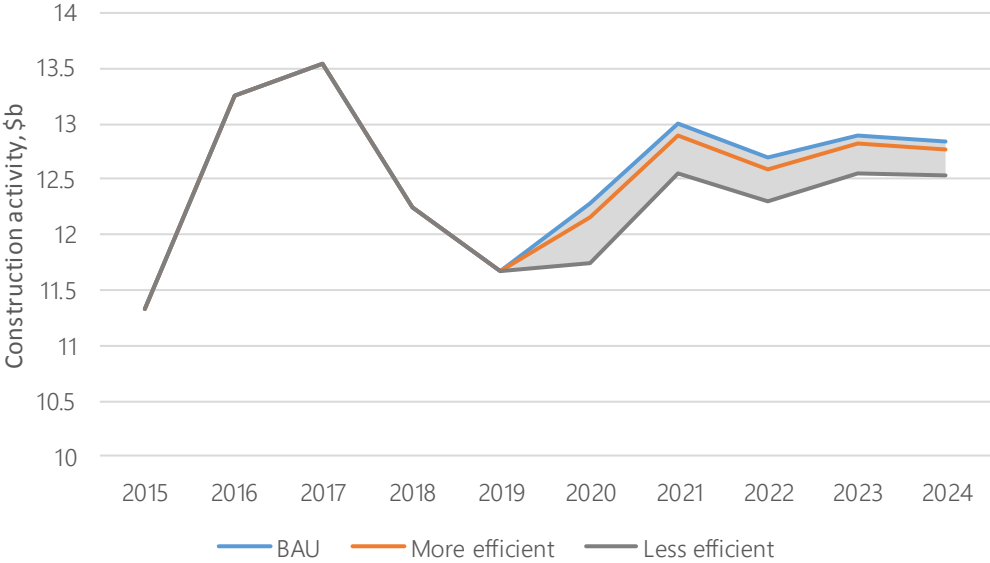
Source: Macromonitor forecasts and Cadence Economics estimates

Figure 3: Construction activity, VIC



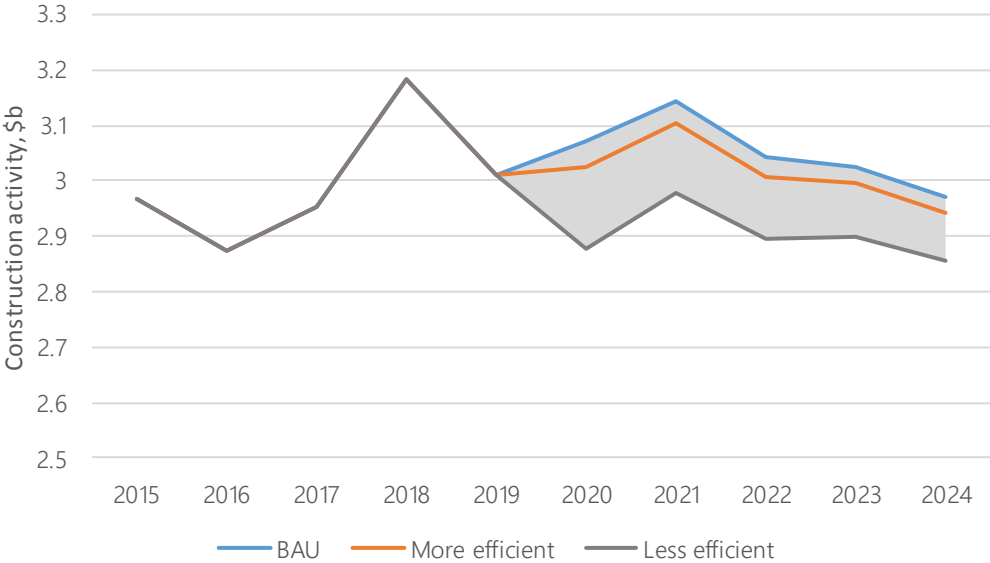
Source: Macromonitor forecasts and Cadence Economics estimates

Figure 4: Construction activity, QLD



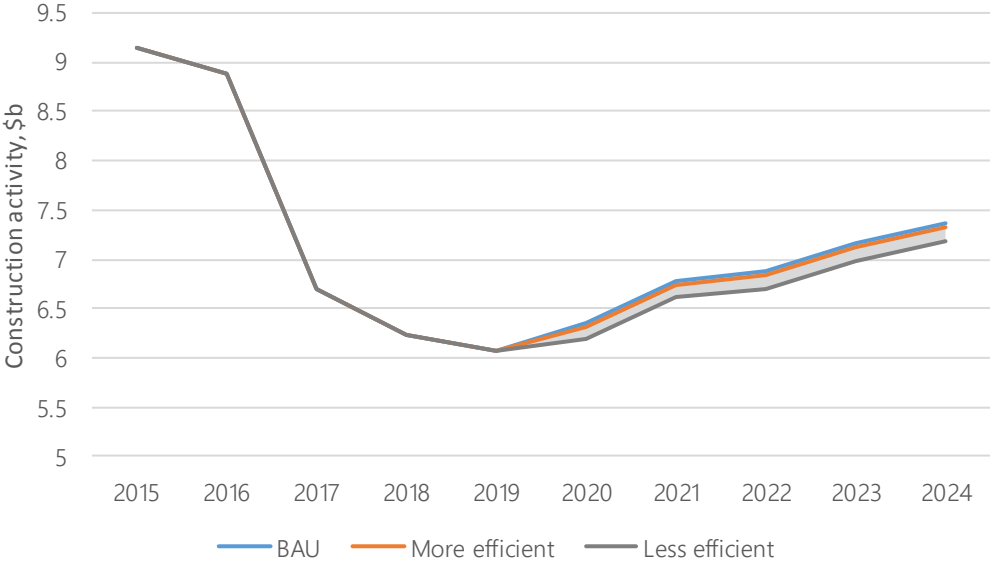
Source: Macromonitor forecasts and Cadence Economics estimates

Figure 5: Construction activity, SA



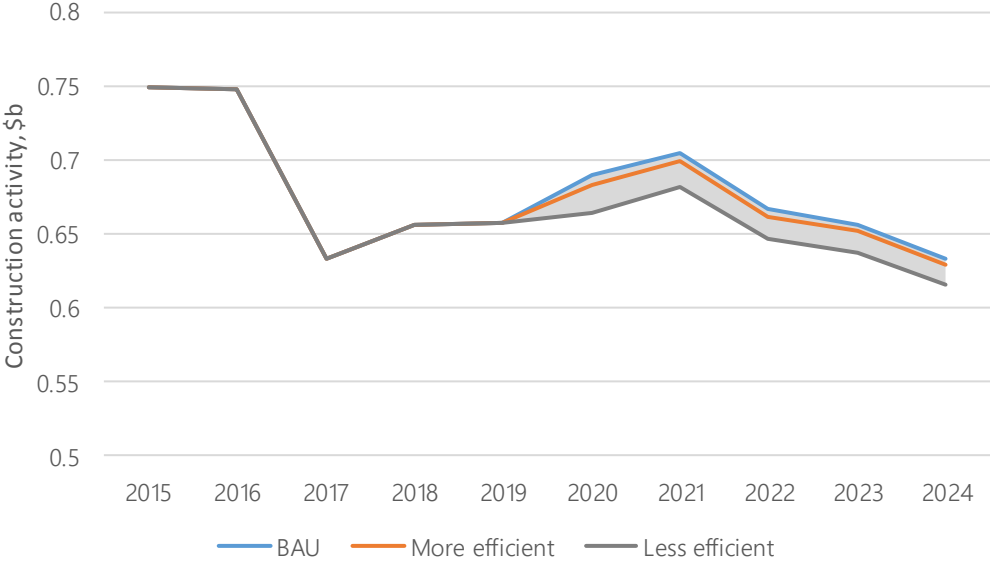
Source: Macromonitor forecasts and Cadence Economics estimates

Figure 6: Construction activity, WA



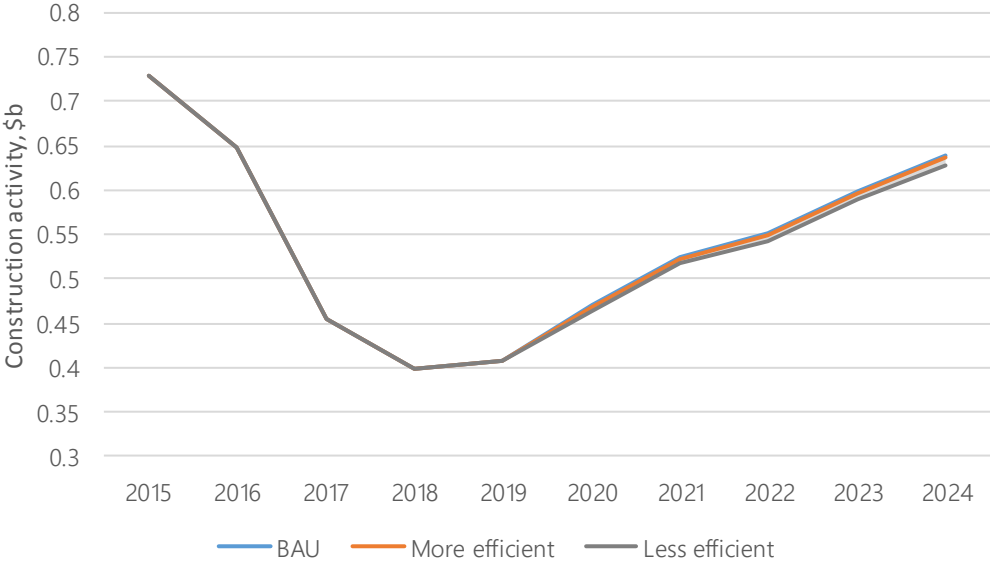
Source: Macromonitor forecasts and Cadence Economics estimates

Figure 7: Construction activity, TAS



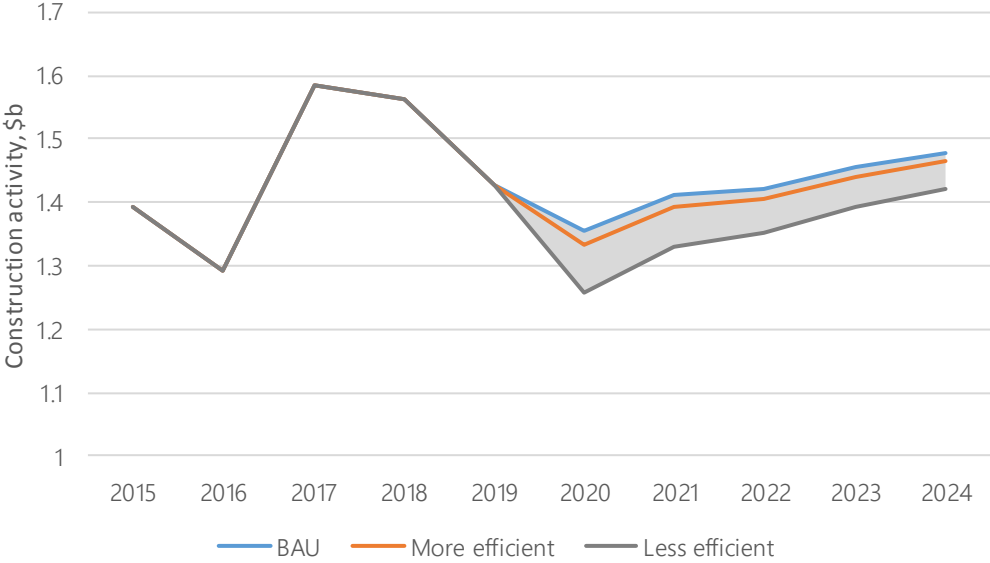
Source: Macromonitor forecasts and Cadence Economics estimates

Figure 8: Construction activity, NT



Source: Macromonitor forecasts and Cadence Economics estimates

Figure 9: Construction activity, ACT



Source: Macromonitor forecasts and Cadence Economics estimates