



**FINAL REPORT**

# Analysis of rate peg options to account for population growth

*Prepared for  
Independent Pricing and Regulatory Tribunal of NSW (IPART)  
4 June 2021*

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## *Executive summary*

The Minister for Local Government has asked IPART to recommend a rate peg methodology that allows the general income of councils to be varied annually on a total basis to take into account population growth. As part of doing this, IPART has sought advice on several specific areas.

- The link between council costs and population growth, to understand the relationship between council costs and different types of development and whether the costs vary significantly by council area.
- Who is currently paying for growth, who should pay for growth and the potential funding shortfall related to growth contingent costs from any of its proposed methodologies.
- Analysis of implementation options against key tax and pricing principles such as efficiency, equity and simplicity; and provide analysis of options to ensure:
  - councils are equitably and fairly funded to account for different types of population growth
  - councils are not ‘double-funded’ for growth through a population factor, in addition to increases in general income from supplementary valuations and ‘growth outside the rate peg.’

### *Cost drivers for councils*

The evidence from NSW and other states suggests that the main driver of a council’s costs is the size of the population (or ratepayer) base that it serves. There is some evidence that there are economies of scale in providing services, so that this increase may be somewhat less than 1:1. However, there is also evidence that there are costs associated with a growth phase, which will predominantly be capital costs rather than operating costs. Councils with higher growth have tended to recover a higher share of capital costs through infrastructure contributions.

Operating costs per person, for which there is better data than capital costs, are quite different across different councils, depending on the type of council, such as metropolitan, regional and rural councils.

### *Who pays for growth?*

The historical evidence and analysis of the methods for increasing rates both suggest that costs of growth are not being fully met for NSW councils in general, with faster growing councils tending to be unable to recover additional revenue in proportion to their growth.

The outcome of this is an expenditure gap between the cost of growth and what councils actually spend, and a smaller increase in the operating margin (revenue less operating costs) for faster growing councils

Councils have been able to recover revenue related to growth through supplementary valuations. Depending on rate structures, land values and the type of development, this can cover from one third to more than the proportionate increase in population.

Our expectation is that the inability to fully fund the costs of growth should mean growing councils will, at some stage, be unable to maintain their service levels. There is insufficient data on service levels to adequately test this proposition.

### *Assessment of options*

IPART has developed four options for implementing a growth factor in the rate peg. Option 1A and 1B apply a proportional increase to a council's rate revenue depending on their population growth or ratepayer growth respectively. Option 2A and 2B apply a per unit increase to a council's rate revenue depending on their population growth or ratepayer growth respectively.

All of IPART's four options could be made reasonably consistent with its implementation or pricing principles. Our analysis suggests Option 1A and Option 1B, which allow for a percentage uplift, are slightly preferable to Option 2A and Option 2B.

- The variation in costs and rate revenue per unit across councils means that applying any standard \$/unit factors as in Option 2A and Option 2B would lead to differences in how this effects the increase in the rate cap. For example, councils that had low rates per person or property would have higher percentage uplifts than their actual growth. I.e. if they had 10 per cent population growth, they may end up with a 20 per cent growth in their rate cap. And councils that had higher rates per person or capita would have the opposite effect. In our view this would not be consistent with councils rate caps increasing in a way proportionate to their population, to accommodate the costs of growth while maintaining similar standards of service.
- Option 1A and Option 1B will also be simpler to implement.

In terms of whether to prefer Option 1A (using population) or Option 1B (using rateable properties), either would be suitable. We retain a slight preference for Option 1A because population is used by the NSW Grants Commission and is derived independently of councils. We note that population or rateable properties will be robust measures of growth for most councils, but there may be exceptions, such as for the City of Sydney.

Of greater importance than the option chosen for the rate peg design is how this fits within other processes such as supplementary valuations. The approaches most consistent with the proposed pricing principles are that:

- the rate growth allowed for a council should be the maximum of what a council would receive under the existing system and what it would receive through the application of the growth factor without supplementary valuations. Ideally both measures would be estimated from a base year and continued separately, so that if



timing of supplementary valuation increases and population are different this would not lead to doubling up. This would:

- ensure no council is worse off
- ensure councils do not double up on the rate peg increase from growth
- an alternative would be to remove the inclusion of any increase in notional income related to supplementary valuations, and replace this with the growth factor.

If the issue of doubling up with supplementary valuations can be addressed as per the options above, then the growth factor allowed should be 1. That is, 10 per cent population or ratepayer growth leads to a 10 per cent increase in allowable revenue. While the evidence suggests that there are some economies of scale, these are relatively small. Further, the NSW Grants Commission already takes this into account in their distribution of grants, and this equalisation can be left to that process.

# 1 Introduction

The Minister for Local Government has asked IPART to recommend a rate peg methodology that allows the general income of councils to be varied annually on a total basis to take into account population growth.

This is to support the NSW Government's commitment to allow councils to align their rates revenue with population growth.

The review is focused on ensuring local councils can continue to provide quality services to their communities, including in those areas experiencing population growth.

As part of doing this, IPART has sought advice on several specific areas.

- The link between council costs and population growth, to understand the relationship between council costs and different types of development and whether the costs vary significantly by council area.
- Who is currently paying for growth, who should pay for growth and the potential funding shortfall related to growth contingent costs from any of its proposed methodologies.
- Analysis of implementation options against key tax and pricing principles such as efficiency, equity and simplicity; and provide analysis of options to ensure:
  - councils are equitably and fairly funded to account for different types of population growth
  - councils are not 'double-funded' for growth through a population factor, in addition to increases in general income from supplementary valuations and 'growth outside the rate peg.'

This report sets out CIE's analysis of the above issues, and is structured as follows:

- **Chapter 2** assesses the cost drivers for councils
- **Chapter 3** considers how costs are currently funded
- **Chapter 4** identifies the options being assessed and their revenue implications for councils
- **Chapter 5** identifies how options can best be aligned to pricing principles.

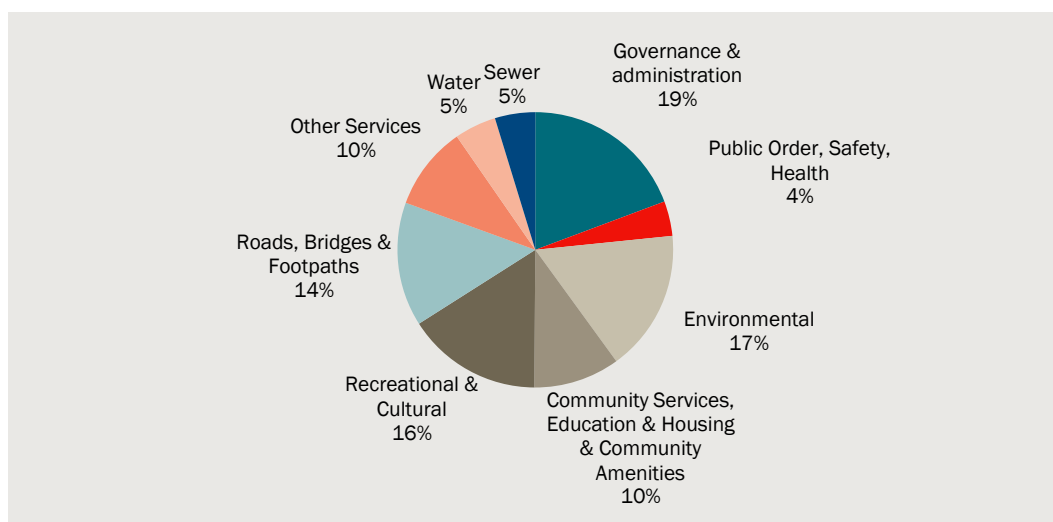
## 2 Cost drivers for local councils

- A council's costs will increase with the size of the population that it serves, and most past analysis has indicated that population or similar measures of size are the main factor that drives costs
- There is some evidence that there are economies of scale in providing services, so that this increase may be somewhat less than 1:1. However, there is also evidence that there are costs associated with a growth phase, which will predominantly be capital costs rather than operating costs
- Costs per person are quite different across different councils, depending on the type of council

### Costs for councils

In 2018/19, councils' expenditure on continuing operations was \$12.1 billion. Councils provide data to the Office of Local Government about their costs across a range of functions (chart 2.1). Note that not all functions are undertaken by all councils — for example, metropolitan councils do not incur costs related to water and sewer as these are provided by Sydney Water.

#### 2.1 Expenditure shares across different activities



Data source: OLG Your Council data, <https://www.olg.nsw.gov.au/public/about-councils/comparative-council-information/your-council-report/>.

The reported expenditure does not include capital expenditure. In aggregate in 2018/19, councils reported revenue 24 per cent higher than expenditure. This is a good guide to the approximate size of capital expenditure for councils relative to operating expenditure.

We do not have systematic data on capital expenditure across all councils and over time. The data that is available suggests capital costs are around one quarter to one third of operating costs. This is discussed later in the chapter.

The cost per person across different council types is set out in table 2.2. Costs per person tend to be much higher in the small rural councils.

## 2.2 Cost per person by type of council

Area	Metropolitan	Metropolitan Fringe	Regional Town/City	Large Rural	Rural
	\$/person	\$/person	\$/person	\$/person	\$/person
Governance & administration	267	340	292	499	1 018
Public Order, Safety, Health	64	49	63	100	217
Environmental	228	249	321	290	290
Community Services, Education & Housing & Community Amenities	152	141	155	254	548
Recreational & Cultural	239	206	273	337	457
Roads, Bridges & Footpaths	111	193	318	804	1 407
Other Services	79	97	241	452	1 081
Water	0	63	165	319	396
Sewer	0	70	177	208	191

Data source: CIE analysis based on OLG Your Council data, <https://www.olg.nsw.gov.au/public/about-councils/comparative-council-information/your-council-report/>.

## *Drivers of council operating costs*

### *Analysis by State grants commissions*

State grants commissions are required to develop methodologies for allocating Commonwealth grants across local councils, in accordance with principles set out in box 2.3. To enable them to distribute grants, each commission has undertaken analysis of the drivers of costs across local councils for a range of expenditure areas. This entails:

- Identifying a major cost driver, which becomes the numerator for costs. For example, if population is the major cost driven, then the per unit cost is represented as a cost per person
- Identifying factors that lead to variation in the per unit cost, typically called disability factors. These could include particular demographics, density of area serviced and whether there are economies of scale
- Applying the factors for each council to give a per unit cost and then multiplying this by the units served to give a total cost for each council.

In order to arrive at an allocation of grants, the commissions also take into account revenue raising capacity of councils. This is not relevant for our task and is not discussed in detail here.

### 2.3 National Principles for distributing general purpose grants

The Commonwealth Local Government (Financial Assistance) Act 1995 requires that the allocation of general purpose grants to local government bodies (councils) conforms with the following national distribution principles:

- Horizontal Equalisation — General purpose grants are to be allocated to councils, as far as practicable, on a full horizontal equalisation basis. This aims to ensure that each council is able to function, by reasonable effort, at a standard not lower than the average standard of other councils in the State/Territory.
- Effort Neutrality — In allocating general purpose grants, an effort or policy neutral approach is to be used in assessing the expenditure requirements and revenue raising capacity of each council. This means as far as practicable, the policies of individual councils in terms of expenditure and revenue efforts will not affect the grant determination.
- Minimum Grant — The minimum general purpose grant for a council is to be not less than the amount to which it would be entitled if 30 per cent of the total amount of general purpose grants were allocated on a per capita basis.
- Other Grant Support — In allocating general purpose grants, other relevant grant support provided to local governing bodies to meet any of the expenditure needs assessed is to be taken into account.
- Aboriginal Peoples & Torres Strait Islanders — Financial assistance is to be allocated to councils in a way which recognises the needs of Aboriginal peoples and Torres Strait Islanders within their boundaries.
- Council Amalgamation — Where two or more local governing bodies are amalgamated into a single body, the general purpose grant provided to the new body for each of the four years following amalgamation should be the total of the amounts that would have been provided to the former bodies in each of those years if they had remained separate entities.

Source: Victorian Grants Commission 2019, Annual Report 2018/19,  
[https://www.localgovernment.vic.gov.au/\\_\\_data/assets/pdf\\_file/0029/437636/2018-19-VGC-Annual-Report-FINAL.pdf](https://www.localgovernment.vic.gov.au/__data/assets/pdf_file/0029/437636/2018-19-VGC-Annual-Report-FINAL.pdf).

The state grant commissions have in general identified that population, or a highly correlated factor such as number of rateable properties, is the main cost driver across every expenditure item. A summary of the main cost factors identified is shown in table 2.4. Note that the expenditure categories used by each grants commission are not the same. We have aligned these where possible and included NA where the grants commission does not have a comparable expenditure category.

## 2.4 Major cost drivers used across state grant commissions and expenditure items

Expenditure item	VIC	NSW	QLD	WA	SA	TAS
Administration	Modified Population	Population	Council type	Rating assessments	NA	Population
Recreation and culture	Modified Population	Population	Population	Population	Population aged 5-64 years and Population	Population
Waste management	No. of Dwellings	NA	Number of bins serviced	NA	Number of Properties	Population
Transport	Modified Population	Population	Road length and type	Assets by type	Transport assets	Population
Law, order and public safety	NA	Population	Population	Rating assessments	Total number of properties	Population
Education, health, welfare and housing	NA	Population	Population	Population	NA	Population
Planning and Building Control	NA	Population	NA	NA	Number of new developments and additions	Population
Family & Community Services	Population	NA	NA	Rating assessments	Population aged 0-14 years and population	NA
Aged & Disabled Services	Pop > 60 + Disability Pensioners + Carer's Allowance Recipients	NA	NA	NA	Population aged 65+ and population	NA
Environment	Modified Population	NA	Residential properties	NA	Population	NA
Business & Economic Services	Modified Population	NA	Population	NA	NA	NA

Note: CIE has approximately aligned expenditure categories across councils. We note that these all vary somewhat.

Source: NSW Grants Commission, <https://www.olg.nsw.gov.au/wp-content/uploads/2020/12/Grants-Commission-2019-20-Annual-Report.pdf>; Victorian Grants Commission, [https://www.localgovernment.vic.gov.au/\\_\\_data/assets/pdf\\_file/0029/437636/2018-19-VGC-Annual-Report-FINAL.pdf](https://www.localgovernment.vic.gov.au/__data/assets/pdf_file/0029/437636/2018-19-VGC-Annual-Report-FINAL.pdf); QLD Grants Commission, [https://www.dlgrma.qld.gov.au/\\_\\_data/assets/pdf\\_file/0020/43094/methodology-review-2011-09.pdf](https://www.dlgrma.qld.gov.au/__data/assets/pdf_file/0020/43094/methodology-review-2011-09.pdf); WA Grants Commission, [https://www.dlgs.wa.gov.au/docs/default-source/local-government/financial-assistance-grants/methodology-for-the-distribution-of-commonwealth-financial-assistance-to-wa-local-governments---nov-2019.docx?sfvrsn=96a92b86\\_6](https://www.dlgs.wa.gov.au/docs/default-source/local-government/financial-assistance-grants/methodology-for-the-distribution-of-commonwealth-financial-assistance-to-wa-local-governments---nov-2019.docx?sfvrsn=96a92b86_6); SA Grants Commission, [https://www.dit.sa.gov.au/\\_\\_data/assets/pdf\\_file/0006/759921/LGFC\\_Annual\\_Report\\_2019-20.pdf](https://www.dit.sa.gov.au/__data/assets/pdf_file/0006/759921/LGFC_Annual_Report_2019-20.pdf); Tasmanian Grants Commission, <https://www.treasury.tas.gov.au/Documents/Financial%20Assistance%20Grants%20Distribution%20Methodology%20Version%204%20%2821%20Aug%202018%29.pdf>.

A number of the state grants commissions have identified that there are economies of scale, so that a larger council does not increase its expenditure in the same proportion as the increase in population. The categories where the grants commissions have identified

economies of scale are shown in table 2.5. The materiality of economies of scale varies across expenditure categories and states. For example:

- The NSW Grants Commission estimates different economies of scale for different cost items. For a doubling of a council's population, these imply a range of costs increasing by 72 per cent to 95 per cent.
- The Queensland Grants Commission allows for economies of scale only in that councils with less than 10,000 people will have higher per unit costs. It considers that councils above 10,000 people are all the same.
- For Victoria, the exact application is not overly clear. The economies of scale factor suggests applied is that a council of ~20,000 people will have costs per unit 25 per cent higher than one with ~130,000 people. However, a weighting is less applied to this of a maximum of 30 per cent, which may mean costs per unit applied is much smaller.
- For other states, the exact application of scale is not always clear.

## 2.5 Economies of scale in providing services identified by state grant commissions

Expenditure item	NSW	VIC	QLD	WA	SA	TAS
Administration	Yes	Yes	Yes	No	.	Yes
Recreation and culture	Yes	No	Yes, for councils less than 10,000 people	No	No	Yes
Waste management	.	Yes	Yes, for councils less than 10,000 people	.	No	Yes
Transport	Yes	Yes	Yes, for councils less than 10,000 people	No	No	No
Law, order and public safety	Yes	.	Yes, for councils less than 10,000 people	No	No	No
Education, health, welfare and housing	Yes	.	Yes, for councils less than 10,000 people	No	.	No
Planning and Building Control	Yes	.	.	.	No	Yes
Family & Community Services	.	No	.	No	No	.
Aged & Disabled Services	.	No	.	.	No	.

Expenditure item	NSW	VIC	QLD	WA	SA	TAS
Environment	.	Yes	Yes, for councils less than 10,000 people	.	No	.
Business & Economic Services	.	Yes	Yes, for councils less than 10,000 people	.	.	.

Note: CIE has approximately aligned expenditure categories across councils. We note that these all vary somewhat.

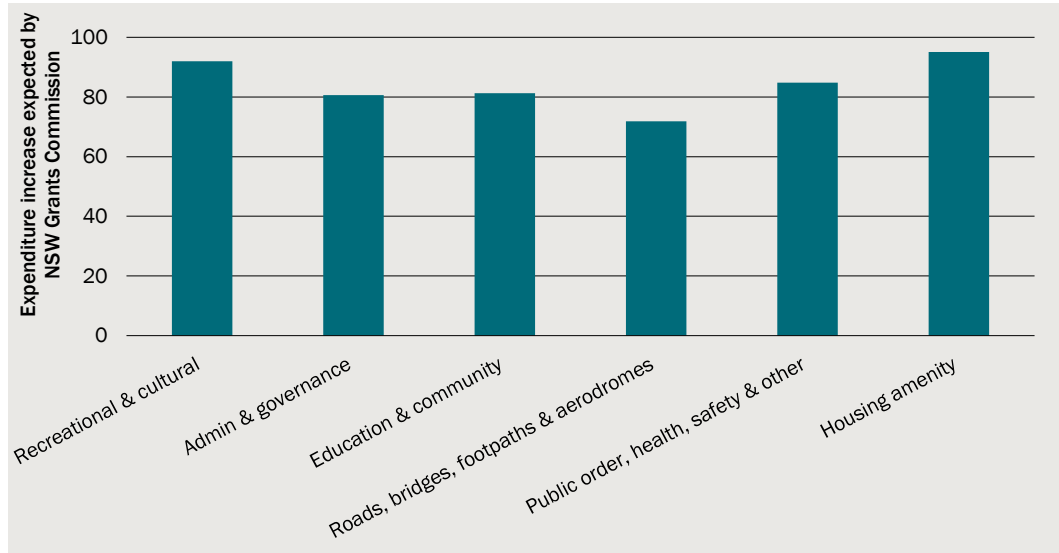
Source: NSW Grants Commission, <https://www.olg.nsw.gov.au/wp-content/uploads/2020/12/Grants-Commission-2019-20-Annual-Report.pdf>; Victorian Grants Commission, [https://www.localgovernment.vic.gov.au/\\_\\_data/assets/pdf\\_file/0029/437636/2018-19-VGC-Annual-Report-FINAL.pdf](https://www.localgovernment.vic.gov.au/__data/assets/pdf_file/0029/437636/2018-19-VGC-Annual-Report-FINAL.pdf); QLD Grants Commission, [https://www.dlgrma.qld.gov.au/\\_\\_data/assets/pdf\\_file/0020/43094/methodology-review-2011-09.pdf](https://www.dlgrma.qld.gov.au/__data/assets/pdf_file/0020/43094/methodology-review-2011-09.pdf); WA Grants Commission, [https://www.dlgrsc.wa.gov.au/docs/default-source/local-government/financial-assistance-grants/methodology-for-the-distribution-of-commonwealth-financial-assistance-to-wa-local-governments---nov-2019.docx?sfvrsn=96a92b86\\_6](https://www.dlgrsc.wa.gov.au/docs/default-source/local-government/financial-assistance-grants/methodology-for-the-distribution-of-commonwealth-financial-assistance-to-wa-local-governments---nov-2019.docx?sfvrsn=96a92b86_6); SA Grants Commission, [https://www.dit.sa.gov.au/\\_\\_data/assets/pdf\\_file/0006/759921/LGGC\\_Annual\\_Report\\_2019-20.pdf](https://www.dit.sa.gov.au/__data/assets/pdf_file/0006/759921/LGGC_Annual_Report_2019-20.pdf); Tasmanian Grants Commission, <https://www.treasury.tas.gov.au/Documents/Financial%20Assistance%20Grants%20Distribution%20Methodology%20Version%204%20%2821%20Aug%202018%29.pdf>.

State grant commissions also have included some factors that suggest that there are specific costs of growth. This would occur where growth comes with a range of costs unrelated to the size of the population. For example, Victoria and WA include a population growth adjustment factor to recognise that areas of higher population growth can have higher costs. Queensland also had population growth previously, but has since removed this because the Queensland Grants Commission considered that positive growth results in significant injection of capital expenditure rather than operational expenditure. South Australia has a specific driver of planning and building control costs related to growth, through using the number of new developments and additions as the main cost factor.

The materiality of the economies of scale expected by the different grants commissions generally appears to be that a doubling of population would lead to anywhere from a 75 per cent increase in expenditure to a doubling of expenditure (i.e. no economies of scale). The estimated impacts of doubling expenditure in NSW for each council function are shown in chart 2.6, and range from 72 per cent to 95 per cent.



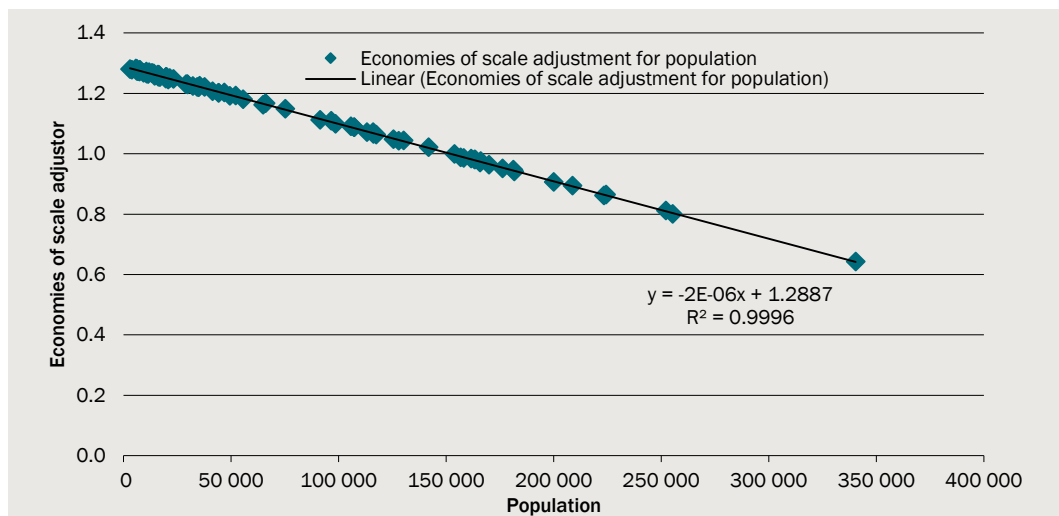
### 2.6 Expenditure increased expected by the NSW Grants Commission for a doubling of population



Data source: The CIE calculations based on factors in NSW Grants Commission, <https://www.olg.nsw.gov.au/wp-content/uploads/2020/12/Grants-Commission-2019-20-Annual-Report.pdf>.

The economies of scale factor for each council in Victoria alongside its population is shown in chart 2.7. This indicates that economies of scale are applied to the number of people, rather than the proportional increase in population. In a proportional sense, this means that there are larger economies of scale assumed for larger councils — a 10 per cent increase in population leads to a larger proportional cost reduction for a large council than for a small council. The economies of scale factor is given a weight for each different expenditure category. The highest weight is 30 per cent. This means that in practice, a council’s expenditure will increase only marginally less than its underlying driver (i.e population or modified population). For a council with a population of 100 000, growing by 10 per cent, we estimate the maximum economies of scale allowed across expenditure items would mean expenditure was expected to increase by over 9 per cent.

### 2.7 Victorian Grants Commission economies of scale adjustor



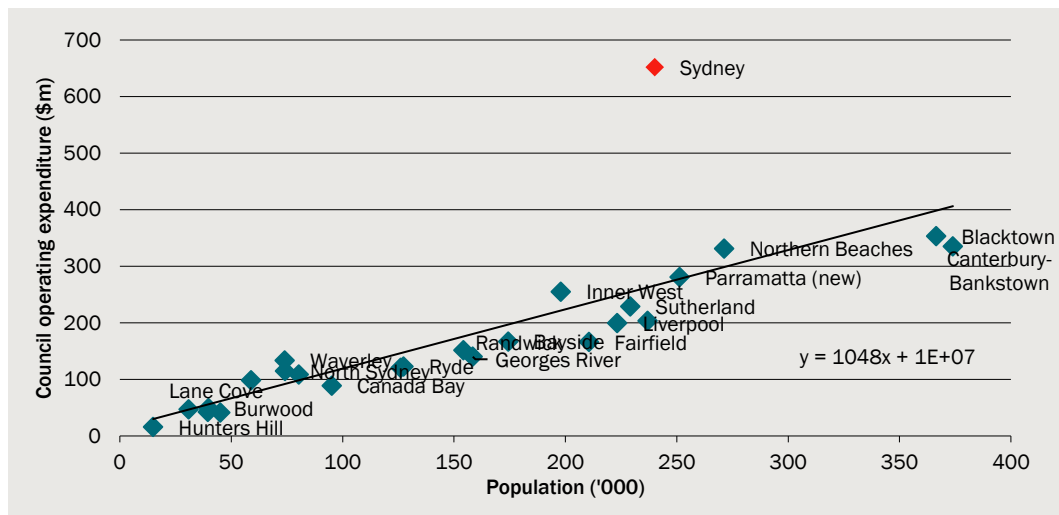
Data source: Victorian Grants Commission, [https://www.localgovernment.vic.gov.au/\\_data/assets/pdf\\_file/0029/437636/2018-19-VGC-Annual-Report-FINAL.pdf](https://www.localgovernment.vic.gov.au/_data/assets/pdf_file/0029/437636/2018-19-VGC-Annual-Report-FINAL.pdf).

## Historical analysis of NSW expenditure

### Relationship between population and council expenditure

There is a strong positive relationship between population and overall council operating expenditure. Across the set of metropolitan and metropolitan fringe councils for the year 2018-19, operating expenditure increases by \$1048 for an additional person (chart 2.8). Most of the councils are well predicted by the line of best fit, except for City of Sydney which has significantly higher expenditure than the line of best fit would predict. Sydney is an outlier due to the fact that its costs are not driven primarily by resident population.

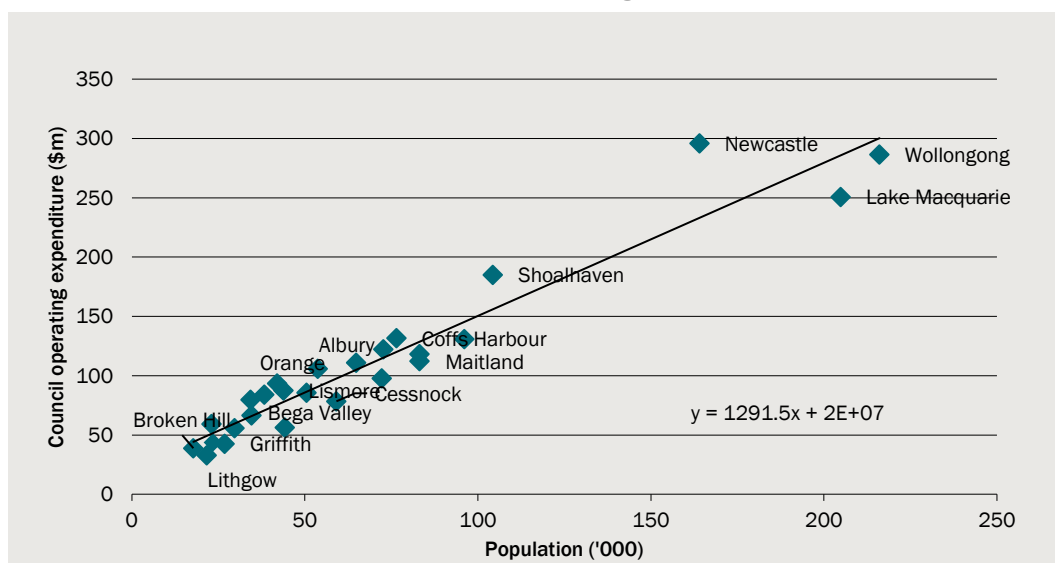
### 2.8 Council expenditure versus population – Metropolitan councils 2018-19



Data source: CIE analysis based on Office of Local Government data 2018-19

This positive relationship also holds true for councils in regional areas (chart 2.9). Over the same time period, an additional person is associated with around \$1300 in higher expenditure.

## 2.9 Council expenditure versus population – Regional councils 2018-19



Data source: CIE analysis based on Office of Local Government data 2018-19

The Office of Local Government distinguishes between council types, including metropolitan, fringe metropolitan, regional, large rural and rural councils. To map out the relationship more accurately between population and council costs, we must control for the differences between councils.

Table 2.10 sets out the regression results between a set of explanatory variables and the different council expenditure categories. A variety of specifications were tested, including the use of different explanators such as the area of the council, the number of DAs determined, the number of businesses and indicators of socioeconomic status. These variables contributed little to the explanatory power of the model, however, and are generally correlated with indicators of population. Overall, council expenditure is well explained by the interaction of population and indicator variables for council type, with an R-squared of 0.91 for the regression on total council expenditure. The specification is set out below:

$$Expenditure_i = \beta_0 + \beta_1 pop_i + \beta_2 Metrofringe * pop_i + \beta_3 Regional * pop_i + \beta_4 largeRural * pop_i + \beta_5 Rural * pop_i + \epsilon_i$$

On average, total council expenditure in metropolitan areas increases by \$946 per person. Expenditure in fringe metropolitan and regional councils is around \$468 and \$409 higher per person than metropolitan councils, while the results for rural councils are not statistically significant. The results are mirrored across the individual expenditure categories across different council types. The major driver for large rural councils is expenditure on roads, which is around \$349 higher per person than metropolitan councils.

An alternate specification was also tested, which accounted for economies of scale using a squared population term. This was not found to be statistically significant.

## 2.10 Regression analysis of council operating cost categories

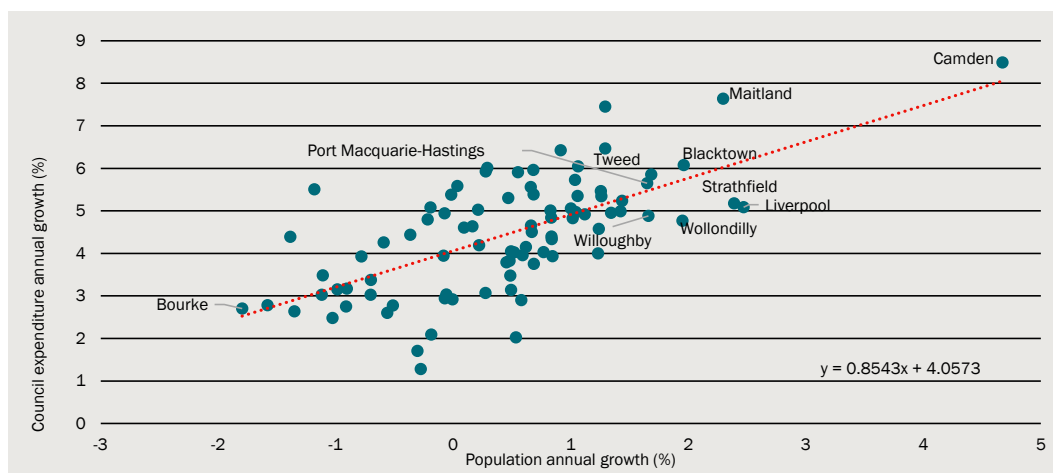
Explanator	Total operating expenditure	Governance and admin	Order and safety	Environmental	Community	Recreational	Roads	Other services
	\$	\$	\$	\$	\$	\$	\$	\$
Population (baseline for metropolitan)	946***	213***	47***	224***	133***	208***	90***	32***
Regional population	468***	47	10*	119***	-18	35***	148***	126***
Fringe metropolitan population	409***	228***	1	48***	2	-7	91***	47***
Large rural population	669	250	1	166	-87	-36	349**	25
Rural population	373	778	-11	397	-185	-274	61	-393
Constant	11 500 000**	101 527	571 069	-1 137 665	2 114 306**	1 703 326**	3 729 513***	4 373 221***
R Squared	0.91	0.63	0.8	0.9	0.86	0.94	0.75	0.52

Note: \*\*\* represents significance  $p < 0.01$ , \*\* represents significance at  $p < 0.05$  and \* represents significance at  $p < 0.10$ . The City of Sydney was excluded from the sample in the regression, due to the fact it is not well explained by population and is a significant outlier

Source: The CIE

The relationship between population and council expenditure can also be explored over time. Chart 2.11 sets out the relationship between the annual growth rate of population and the growth rate of total council expenditure. Overall, a 1 per cent increase in population is associated with a 0.85 per cent increase in council expenditure. This suggests that expenditure increases with population over time, but not by the same amount. It is difficult to provide an accurate measure over time, since council expenditure is impacted by the rate peg itself (councils cannot spend more than their revenue allows) and so the relationship could be under-estimated.

### 2.11 Expenditure growth and population growth 1999-2019



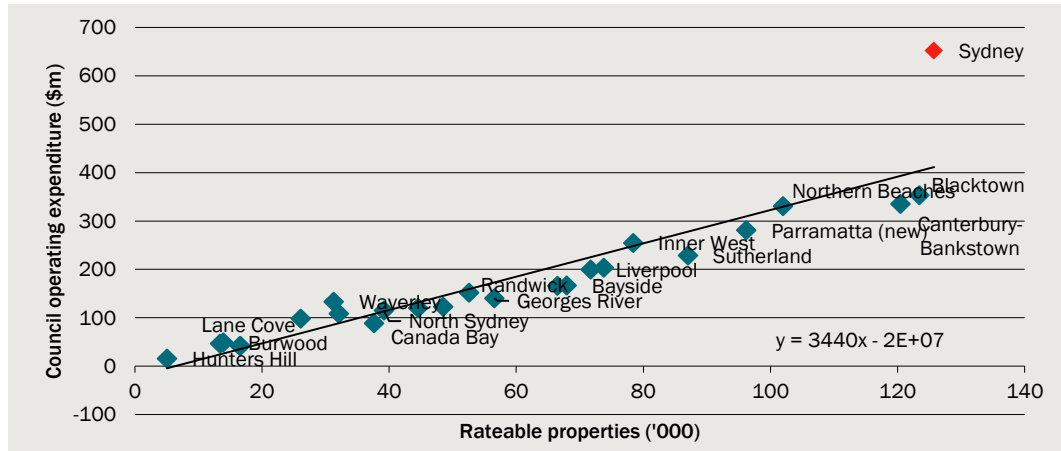
Note: Excludes GLAs that did not exist for the entire sample period. Excludes Albury, Lithgow and Oberon, whose borders change in 2004. Excludes Hills and Hornsby, whose borders changed in 2016

Data source: The CIE, based on data from Office of Local Government

### *Relationship between rateable properties and council expenditure*

The drivers of council operating expenditure can also be examined in terms of the number of rateable properties. Like population, the number of rateable properties (including residential, business, farming and mining properties) are positively related to council operating expenditure. On average, council expenditure increases by \$3440 for each additional rateable property (chart 2.12). The City of Sydney is still an outlier in terms of being predicted by rateable properties, although to a lesser degree compared to predictions based on population. This may be explained due to the fact that costs in Sydney would be determined more by the larger volume of business activity that takes place compared to residents in the area.

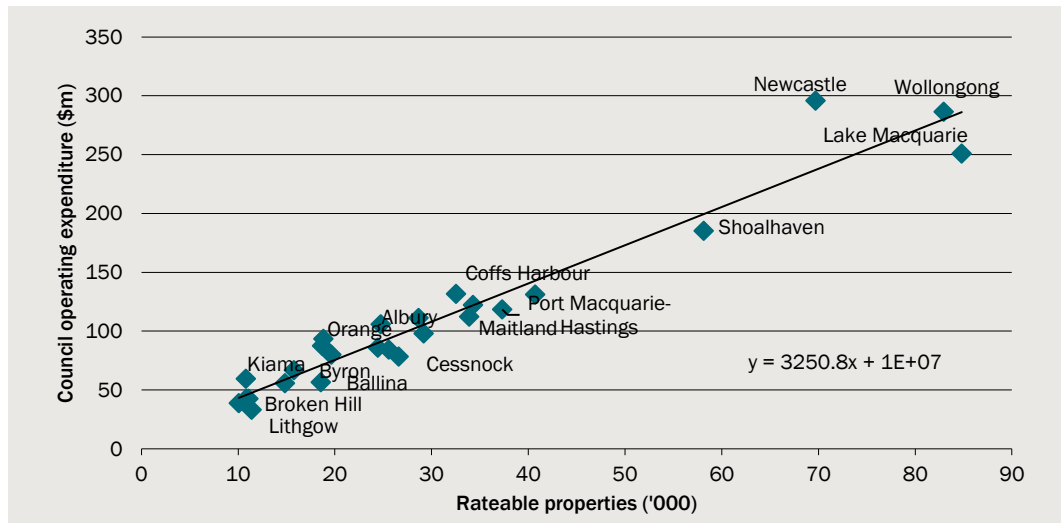
**2.12 Council expenditure and rateable properties – Metropolitan councils 2018-19**



Data source: CIE analysis based on Office of Local Government data 2018-19

Likewise, the relationship also holds for councils in regional areas, with expenditure increasing on average by \$3250 for each additional rateable property (chart 2.13).

**2.13 Council expenditure and rateable properties – Regional councils 2018-19**



Data source: CIE analysis based on Office of Local Government data 2018-19

Table 2.14 sets out the regression results between a set of explanatory variables based on rateable properties and the different council expenditure categories. Like the previous set of results based on population, the coefficients for the different rateable properties across council types are statistically significant and positive. The total operating expenditure increases by \$3252 per rateable property in metropolitan councils. Relative to metropolitan councils, costs also increase for each additional property in regional councils, fringe metropolitan councils and councils in large rural areas.

There is a larger cost premium associated with large rural areas per rateable property (of around \$2561 relative to metropolitan councils) which could reflect the fact that large rural council areas face more significant costs of providing services over larger geographies relative to denser council areas. This appears to be primarily driven by expenditure on roads based on the regression results for individual expenditure categories.

## 2.14 Regression analysis of council operating cost categories NSW

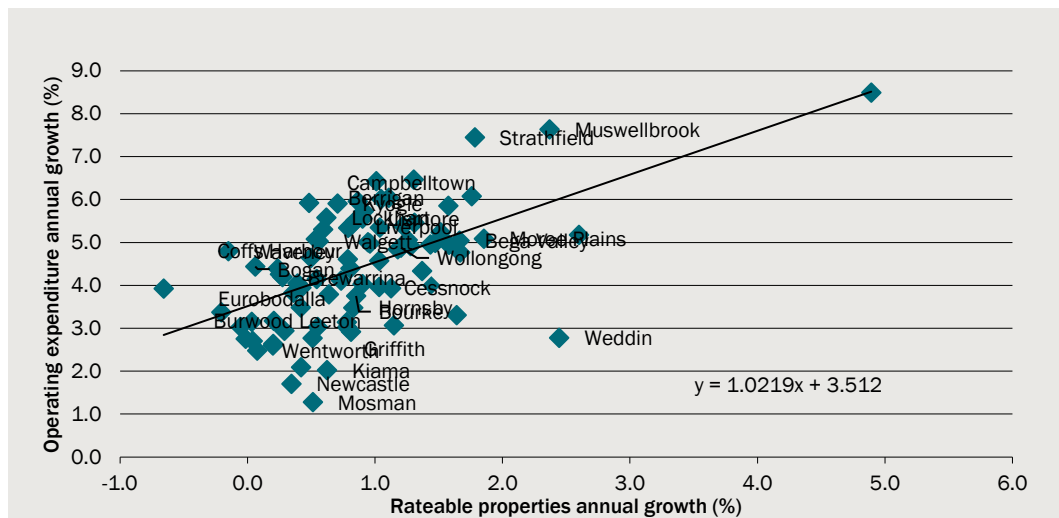
Explinator	Total operating expenditure	Governance and admin	Order and safety	Environmental	Community	Recreational	Roads	Other services
	\$/property	\$/property	\$/property	\$/property	\$/property	\$/property	\$/property	\$/property
Properties (baseline for metropolitan)	3 252***	835***	192***	659***	399***	675***	288***	204***
Regional properties	409**	-90	-32	169***	-118***	-66*	321***	225***
Fringe metropolitan properties	537***	425***	-48**	77*	-41	-121***	213***	33
Large rural properties	2561**	1027	101	384	-183	33	893***	305
Rural properties	6951	3547	464	1266	-140	382	954	477
Constant	-6 370 695	-6 156 573	-730 767	-3 243 938**	1 246 730	-81 3367	1 556 626	1 770 596
R Squared	0.9	0.67	0.69	0.91	0.87	0.93	0.78	0.45

Note: \*\*\* represents significance  $p < 0.01$ , \*\* represents significance at  $p < 0.05$  and \* represents significance at  $p < 0.10$

Source: The CIE

The relationship over time between growth in the number of rateable properties and growth in council operating expenditure is also positive. On average, a 1 per cent increase in the base of rateable properties leads to a 1.02 per cent increase in council expenditure (chart 2.15). This is similar to the relationship between the growth in population and council expenditure (which was 0.85 per cent).

### 2.15 Expenditure growth and rateable properties growth NSW councils 1999-2019



Data source: The CIE, based on data from Office of Local Government

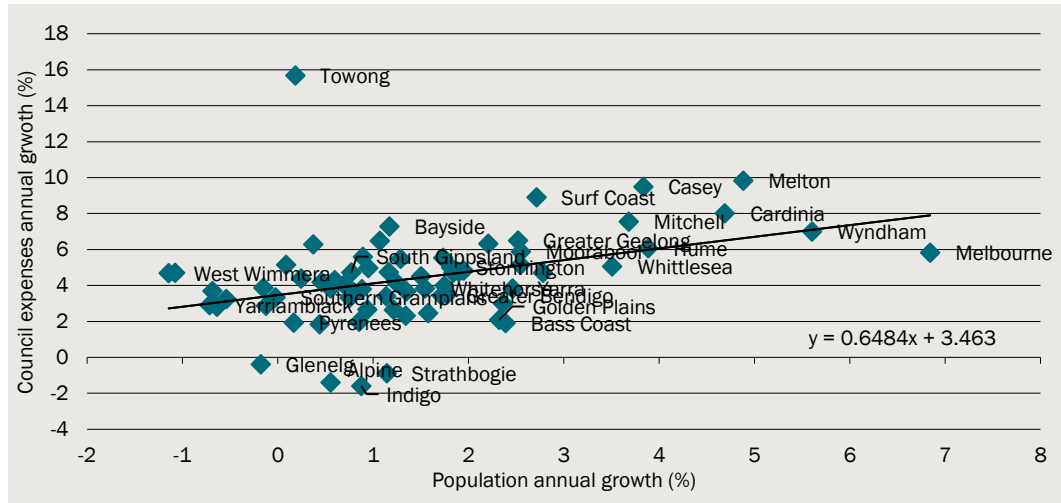
### Comparisons to Victorian councils

Chart 2.16 presents the relationship between annual growth in council expenditure and annual growth in estimated resident population of Victorian councils over 2016-2021. Like NSW councils, there is a positive relationship between population growth and expenditure growth. On average, a 1 per cent increase in population is associated with a 0.65 per cent increase in council expenditure.

This is less than the ~0.85 per cent increase observed across NSW councils, however there is fewer public data available that extends before 2016 (in comparison NSW OLG historical data spans from 1990s onwards). Note that Victoria has also had rate pegging since July 2016, which would be expected to impact on this relationship. A longer time series is needed to provide a more accurate measure of the trend relationship, since with only five years of data volatility is likely influencing the time series. This is to be expected particularly in the years 2020 and 2021, in which the impacts of the COVID-19 pandemic would be influencing population growth for instance. Even with these limitations, there is still evidence that population is a key driver of council costs in councils outside of NSW.



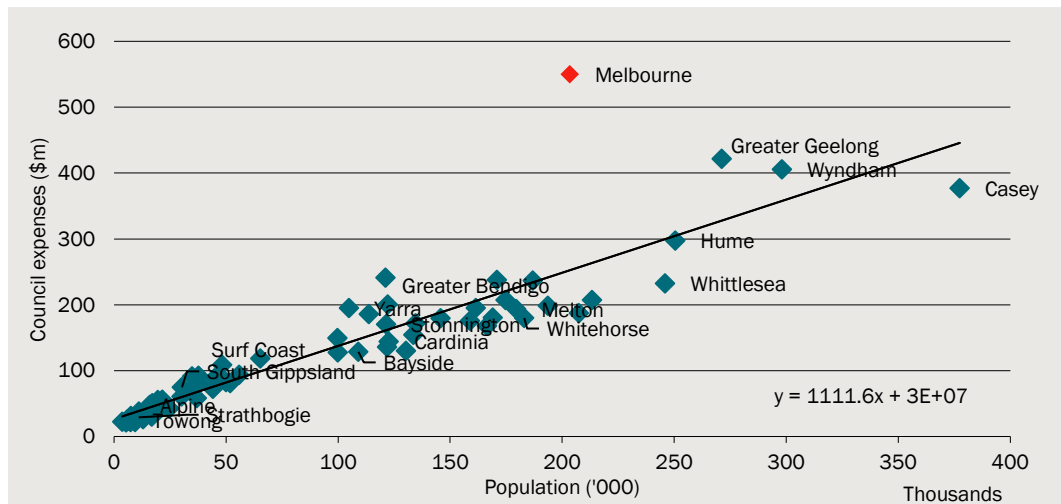
### 2.16 Expenditure growth and population growth Victoria 2016-2021



Data source: CIE analysis based on data from Local Government Victoria performance monitoring 2015-2020, and estimated resident population data from Victoria in Future 2019, Department of Environment, Land, Water and Planning

The relationship can also be explored cross-sectionally. On average, council expenditure increases by \$1111 per person, based on recent population and cost data for the year 2020 (chart 2.17). The strength of the relationship, as well as the magnitude of the coefficient is similar to the relationship between population and council expenditure for NSW. Likewise, the council area for Melbourne city is an outlier in that its operating costs are not well described by resident population.

### 2.17 Council expenditure and population in Victoria 2020

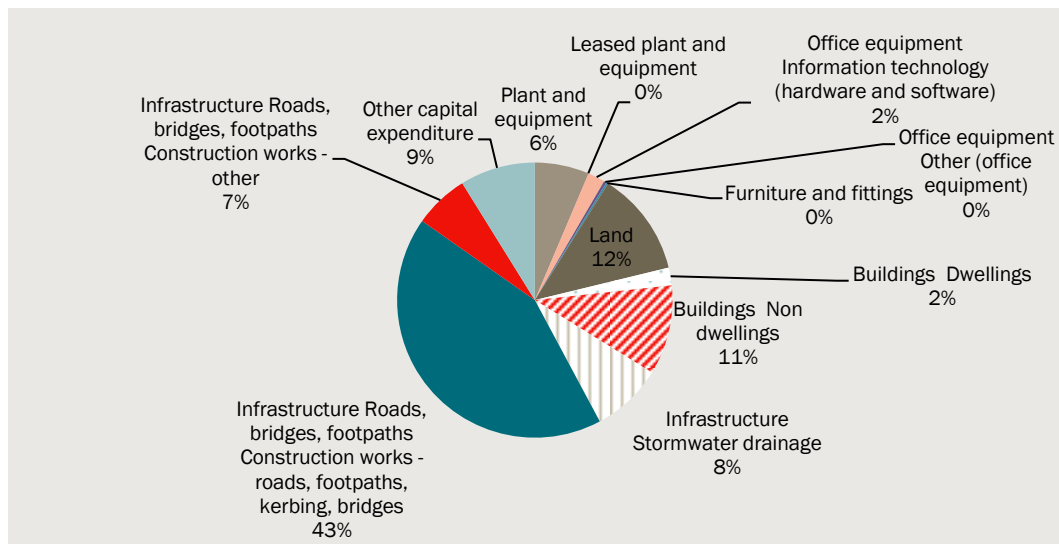


Data source: CIE analysis based on data from Local Government Victoria performance monitoring 2015-2020, and estimated resident population data from Victoria in Future 2019, Department of Environment, Land, Water and Planning

## *Drivers of council capital costs*

IPART has collated information on councils' capital costs for 2008/09, 2009/10, 2013/14, 2014/15, 2017/18 and 2018/19. This covers the councils that respond to surveys to inform the weighting of components in the Local Government Cost Index. On average, about half of NSW councils respond to the survey. For the councils that responded in 2018/19, total capital expenditure was \$3.3 billion, distributed by type as shown in chart 2.18. The main capital expenditure item is for roads, bridges and footpaths. To put this in perspective, this is equivalent to 37 per cent of reported expenses for continuing operations for the same set of councils in 2018/19.

### 2.18 Capital expenditure for selected councils 2018/19



Data source: The CIE.

Capital expenditure will be more lumpy than operating expenditure and is only available for selected years and for selected councils. To consider the extent to which capital expenditure is driven by population and population growth, we have:

- inflated capital expenditure for each year to 2018/19 dollars using the Local Government Cost Index
- taken an average across whichever years each council has reported for, to give an average capital expenditure figure
- linked this to population, expenses from continuing operations and population growth for 2008/09 to 2018/19. Note that by doing this any councils that have merged are excluded.

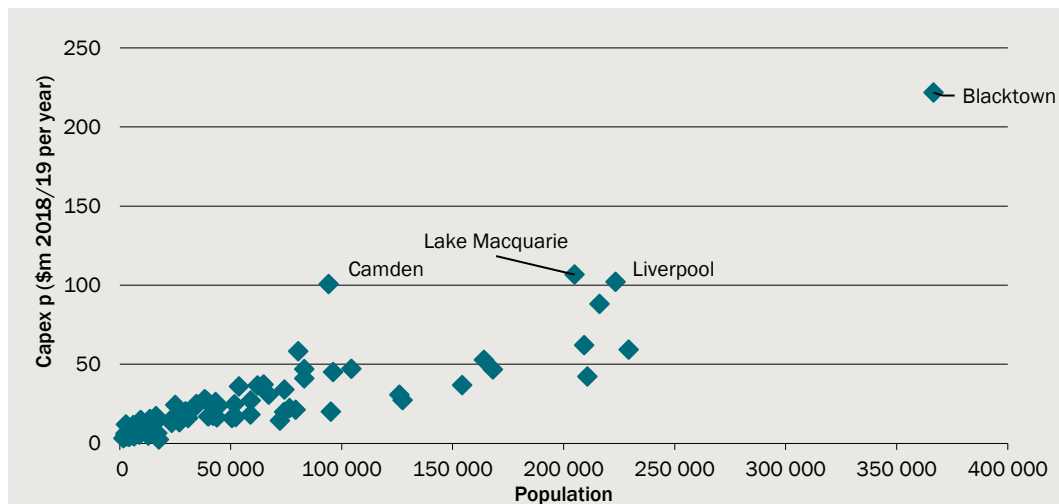
We have then also linked this to data on the collection of infrastructure contributions, which is available from 2013/14 to 2018/19.

The smaller selection of data means that these results should be treated with more caution than analysis of expenses submitted each year for all councils.

Nevertheless, a few interesting findings emerge in relation to the drivers of capital expenditure:

- capital expenditure appears to be driven by both the level of population and the amount of population growth
  - larger councils, such as Blacktown, tend to have the largest amount of capital expenditure per year (chart 2.19)
  - fast growing councils, such as Blacktown, Liverpool and Camden, tend to have large capital expenditure (chart 2.20)
- using regression analysis to separate out the impacts of population and population growth suggests:
  - each person is associated with capital expenditure of \$202 per year
  - each additional person is associated with capital expenditure of \$12 938 per year.

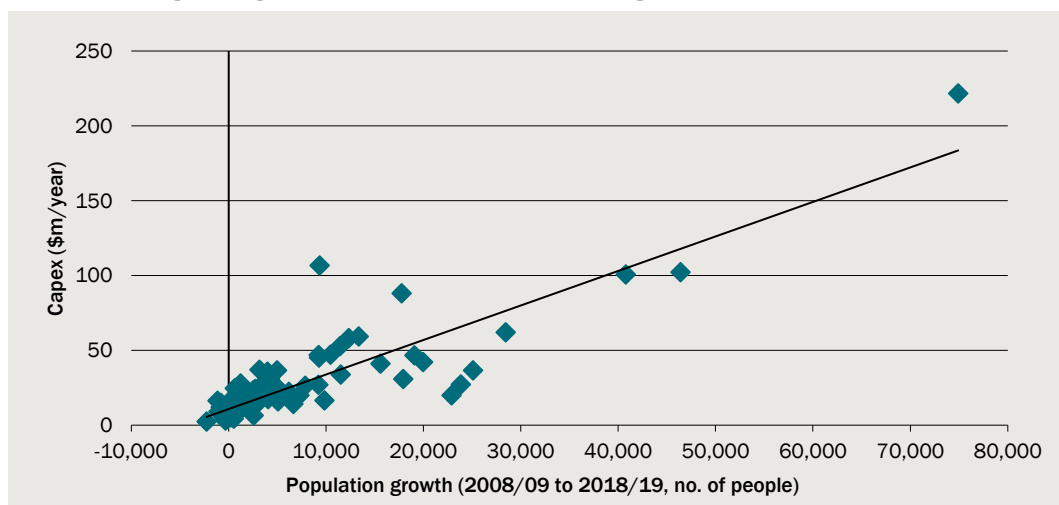
### 2.19 Larger NSW councils tend to have higher levels of capital expenditure



Note: Capital expenditure is an average for the years available for each council as set out in the text; Population is for 2018/19.

Data source: The CIE, based on data provided by IPART and OLF Your Councils website.

### 2.20 Faster growing NSW councils tend to have higher relative capital expenditure



Note: Capital expenditure is an average for the years available for each council as set out in the text; Population is for 2018/19.

Data source: The CIE, based on data provided by IPART and OLG Your Councils website.

## 2.21 Explaining NSW council capital expenditure

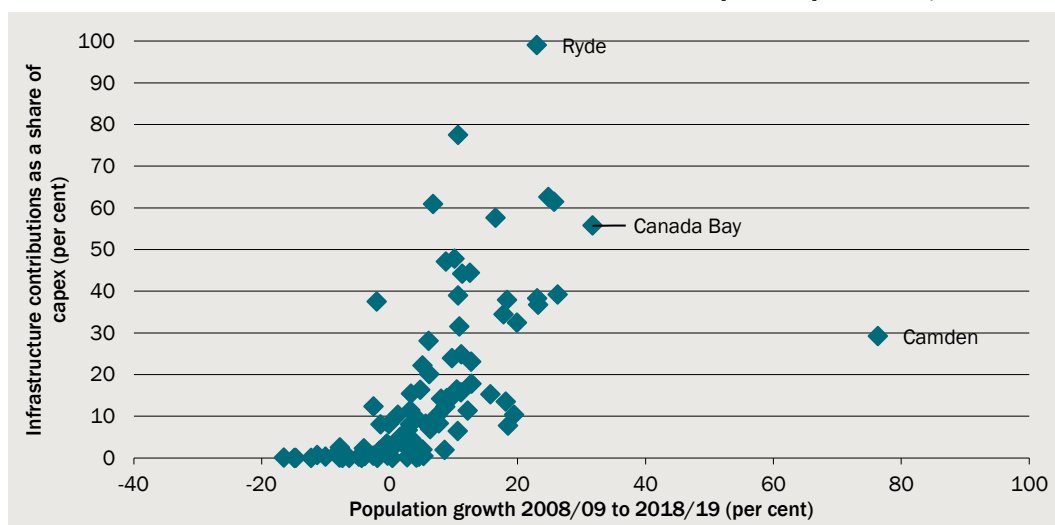
Variable	Coefficient
	\$/year
Constant	6 238 022***
Population in 2018/19	202***
Population growth per year 2008/09 to 2018/19	12 938***

Note: Dependent variable is capital costs in average \$ per year. \*\*\* means statistically significant at the 1 per cent level.

Source: The CIE.

Councils have other means to fund capital expenditure as well as rate revenue, such as infrastructure contributions and capital grants. Infrastructure contributions are well suited to funding development specific costs. Using average infrastructure contributions from 2013/14 to 2018/19, adjusted for the local government cost index, we can track how much of average capital expenditure is funded from infrastructure contributions for each council.<sup>1</sup> The fastest growing councils have tended to use infrastructure contributions more, which makes sense as more of their capital expenditure will be growth related as opposed to supporting the existing population (chart 2.22).

## 2.22 Infrastructure contributions as a share of council capital expenditure, NSW



Note: Capital expenditure is the cost index adjusted average from 2008/09 to 2018/19, for years where data is available.

Infrastructure contributions is the cost index adjusted average from 2013/14 to 2018/19.

Data source: IPART data on capital expenditure; contributions data from annual reporting by councils.

<sup>1</sup> Note that average infrastructure contributions and average capital expenditure are not calculated over exactly the same period.

### 3 *How are costs of growth currently funded?*

- Based on the evidence in this report, the costs of growth are not being fully met for NSW councils in general, with faster growing councils tending to be unable to recover additional revenue in proportion to their growth
- The outcome of this is an expenditure gap between the cost of growth and what councils actually spend, and a smaller increase in the operating margin (revenue less operating costs) for faster growing councils
- Councils have been able to recover revenue related to growth through supplementary valuations. Depending on rate structures, land values and the type of development, this can cover from one third to more than the proportionate increase in population
- Our analysis suggests that the inability to fully fund the costs of growth should mean growing councils will, at some stage, be unable to maintain their service levels. There is insufficient data on service levels to adequately test this proposition.

#### *Revenue changes for NSW councils*

NSW councils source revenue from:

- rates applied to property (i.e. taxation)
- sale of goods and services, which includes fees and charges for services such as waste management, water and sewerage, recreation and building approvals
- grants from the Commonwealth Government administered through the NSW Grants Commission and other grants, such as capital grants
- other revenue, which includes infrastructure contributions, and
- interest income.

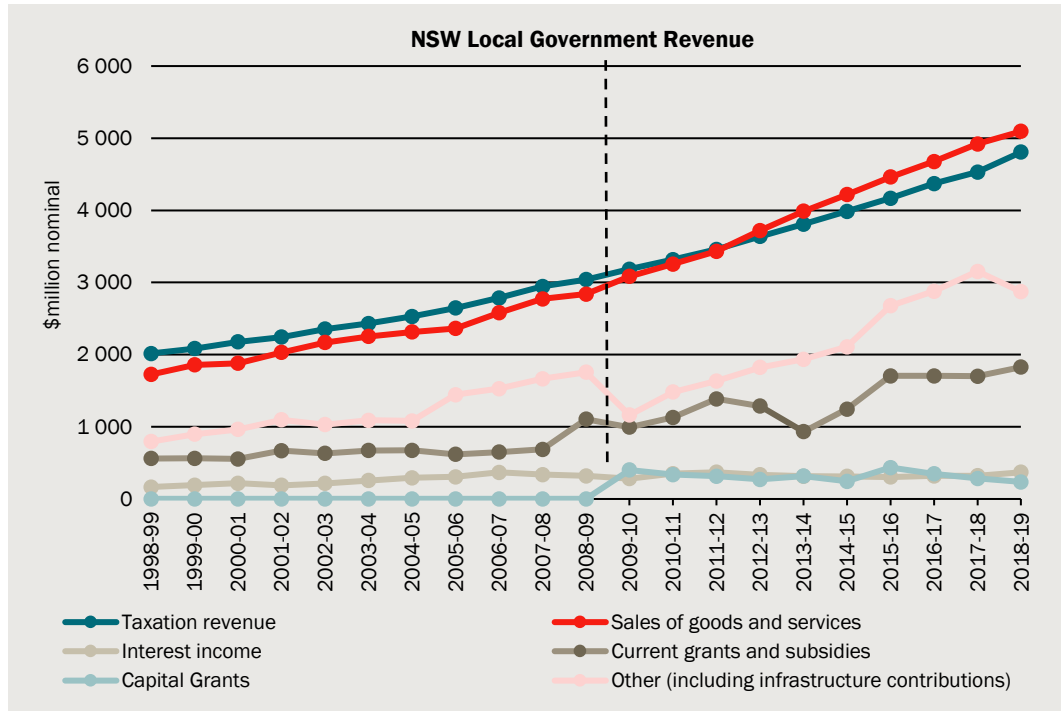
In 2018/19, NSW councils collected total revenue of \$15 billion. Taxation revenue (i.e. rates) and sale of goods and services are the two largest components of revenue for NSW councils), at around \$5 billion each.

In NSW, taxation revenue has grown over time, but not as quickly as other components of revenue. As a result, taxation revenue has declined as a proportion of total revenue. The most likely reason for this is that NSW has had rate capping since 1977.<sup>2</sup>

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<sup>2</sup> <https://www.lga.sa.gov.au/sa-councils/local-government-in-sa/rate-capping>

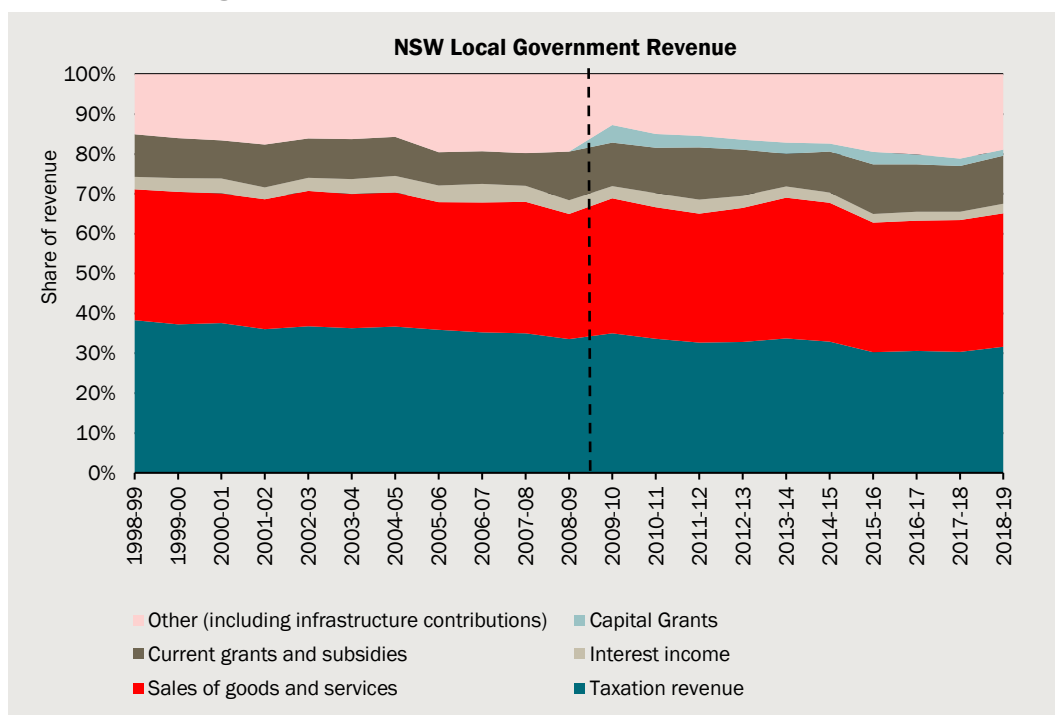
### 3.1 NSW local government revenue



Note: Until 2008-09 'Capital grants' was included in 'Other'.  
 Data source: ABS Government Finance Statistics, Australia, 2018-19,  
<https://www.abs.gov.au/statistics/economy/government/government-finance-statistics-annual/latest-release#data-download>.

Over time, revenue from taxation (i.e. rates) has become a smaller share of revenue in NSW, which reflects the operation of the rate peg (chart 3.2). Other revenue, which includes infrastructure contributions has been the fastest growing revenue category.

### 3.2 NSW local government revenue sources



Note: Until 2008-09 'Capital grants' was included in 'Other'.

Data source: ABS Government Finance Statistics, Australia, 2018-19.

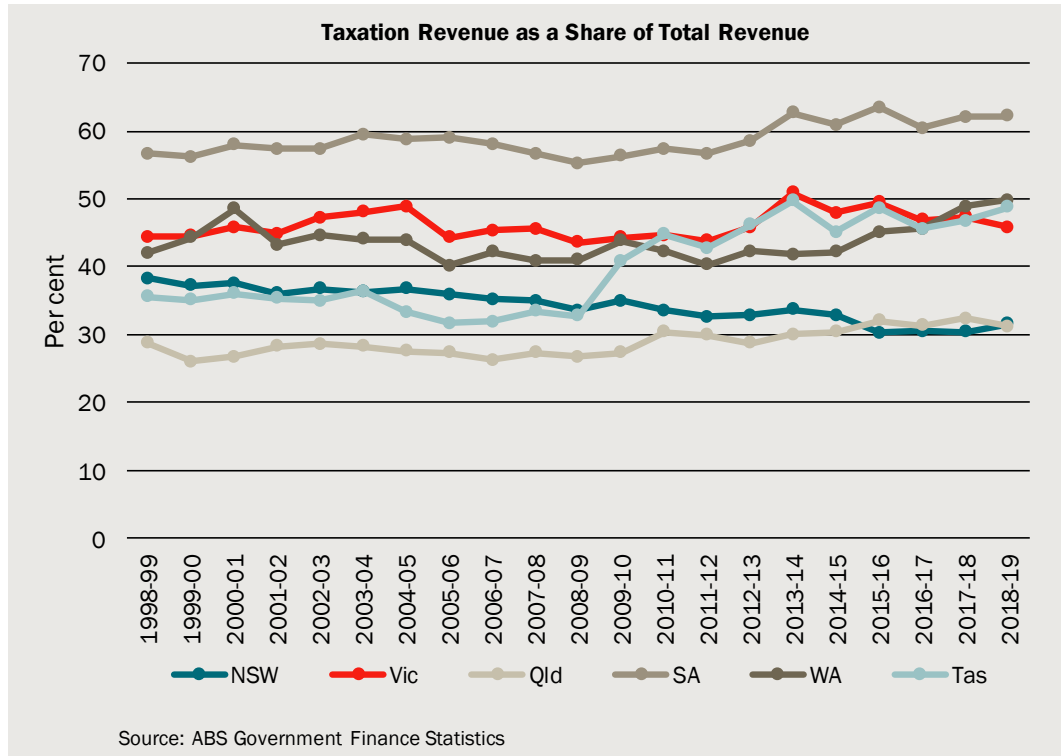
<https://www.abs.gov.au/statistics/economy/government/government-finance-statistics-annual/latest-release#data-download>.

The same impacts have not occurred in other states. In these other States, taxation revenue rose just as fast or faster than other components of revenue. This rapid increase was possible because Victoria did not introduce rate capping until 2016, and the other states still do not have rate capping.<sup>3</sup> As a result, taxation revenue has been stable as a share of total revenue (with the exception of a sharp increase in Tasmania!<sup>4</sup>). This stands in contrast to NSW, where taxation revenue has declined as a share of total revenue.

<sup>3</sup> <https://www.lga.sa.gov.au/sa-councils/local-government-in-sa/rate-capping>

<sup>4</sup> The rapid increase in taxation revenue's share of total revenue in Tasmania occurred in 2009-10. This was driven by a large fall in sales of goods and services, which reduced total revenue. In the same year, Tasmanian local councils reduced their expenses substantially. This suggests that responsibility for the provision of some services was shifted from Tasmanian governments to other entities.

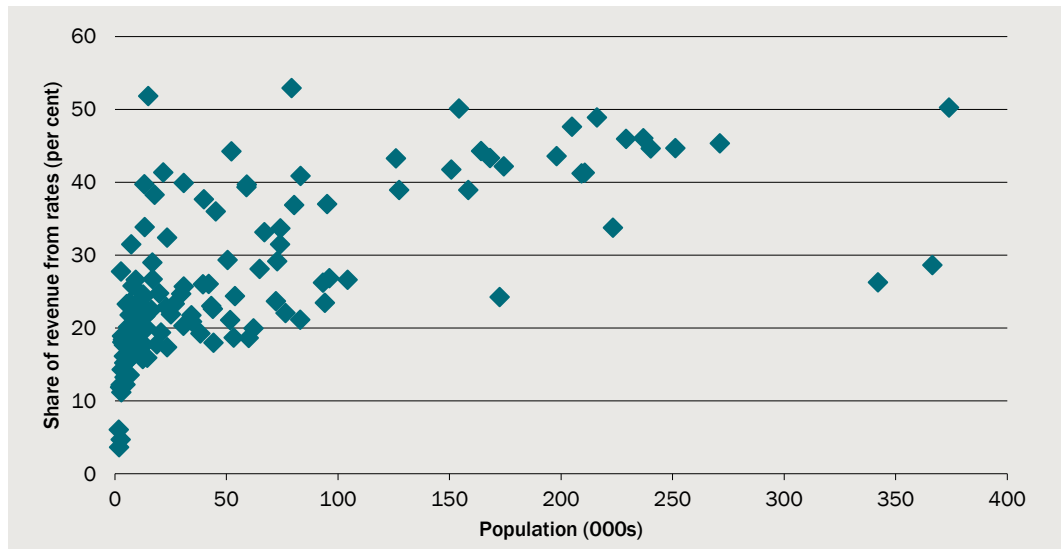
### 3.3 Council tax revenue as a share of revenue



Data source: ABS Government Finance Statistics, Australia, 2018-19, <https://www.abs.gov.au/statistics/economy/government/government-finance-statistics-annual/latest-release#data-download>.

For the larger NSW councils, rates tend to make up a larger share of revenue than for smaller councils (chart 3.4). For example, for councils with less than 10 000 people, rates made up 17 per cent of revenue in 2018/19, compared to 40 per cent for councils with more than 100 000 people. Smaller councils have a much larger share of revenue from grants and contributions.

### 3.4 Share of revenue from rates across NSW councils 2018/19



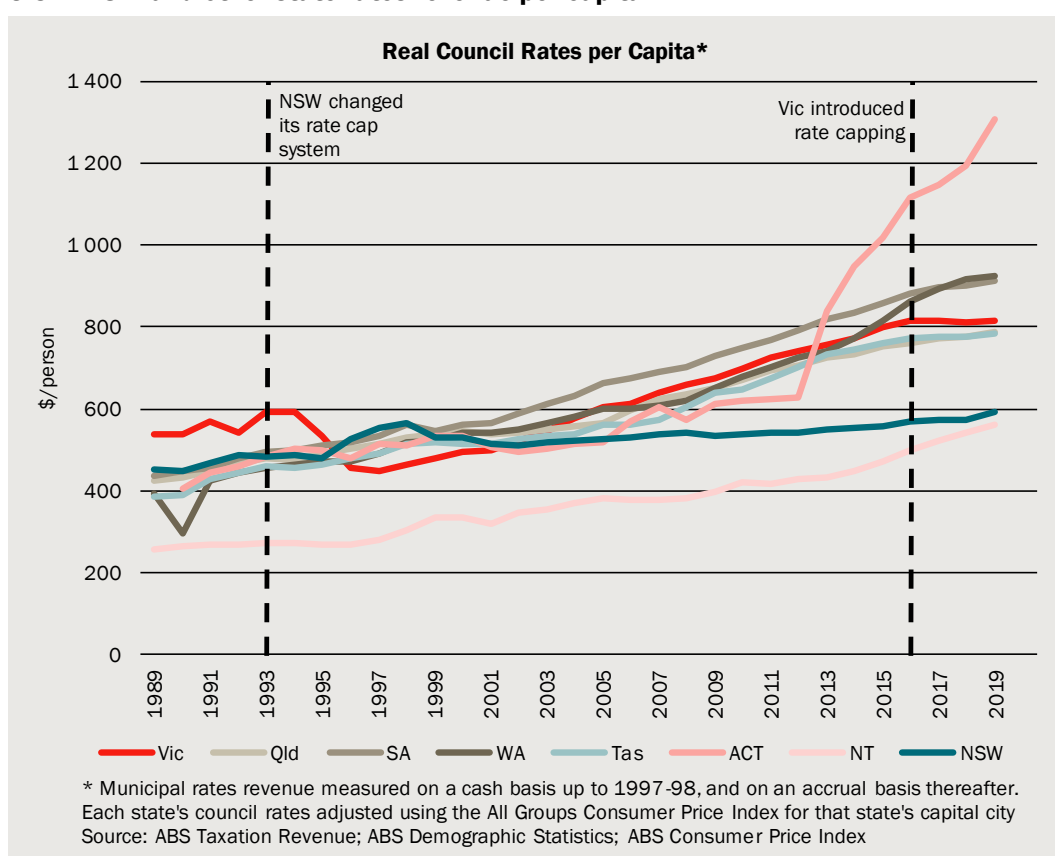
Data source: OLG Your Council data, <https://www.olg.nsw.gov.au/public/about-councils/comparative-council-information/your-council-report/>.



### Comparison of rates growth to other states

A cap on the rates that local councils can collect is a unique feature of local government funding arrangements in NSW, until recently, when Victoria has also adopted a cap on rate growth. The rate cap restricts the capacity of local government in NSW to raise revenue. The impact of the rate cap on local government revenues in NSW can be seen in chart 3.5. The rates revenue received by local government in NSW has grown at a significantly slower pace compared to other states and territories, where rate pegs do not apply.

### 3.5 NSW and other state rates revenue per capita



Note: ACT increases rapidly because it has transitioned away from stamp duty and towards land tax (i.e. rates).

Data source: The CIE based on ABS Government Finance Statistics, Australia, 2018-19,

<https://www.abs.gov.au/statistics/economy/government/government-finance-statistics-annual/latest-release#data-download>. ABS Consumer Price Index and ABS population data.

### Growth outside of the rate peg

As seen above, NSW councils have increased their rates income, and even marginally increased rates revenue in real per capita terms. There are currently three ways to increase councils' income from rates:

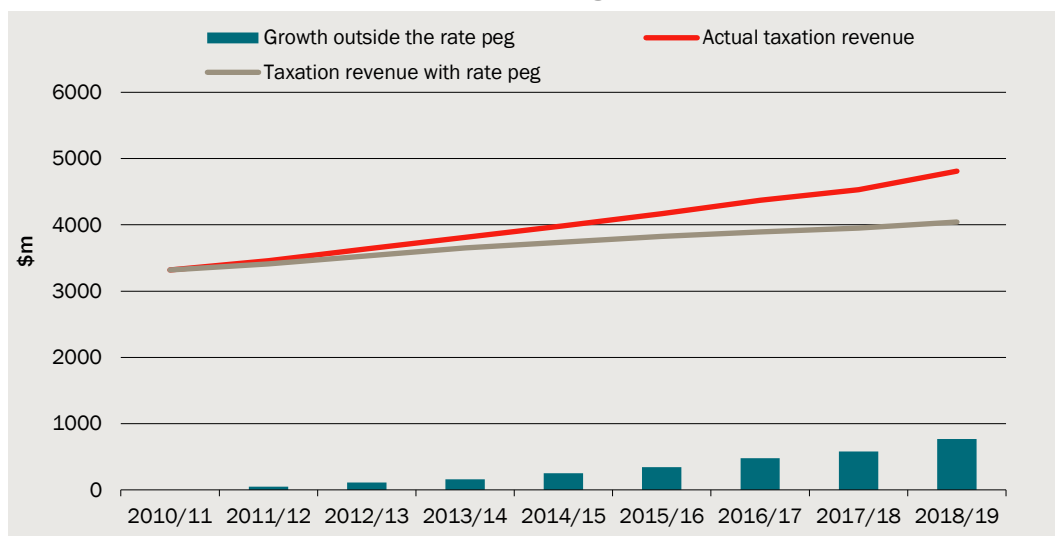
- **The rate peg** is the amount by which councils can increase their general income on an annual basis, as approved by IPART, adjusted for improvements in productivity. This has averaged 2.5 per cent from 2011/12 to 2019/20, which is slightly more than consumer price inflation (CPI)

- **Supplementary valuation process** allow for a council to receive additional income because of changes in the property stock (land rezoning, and/or the newly rateable properties). For example, suppose a block of land received \$2000 in rates as a residential house. It is rezoned and redeveloped into 20 apartments, and rates for the equivalent year under its rate structure would be \$10 000. The council is then allowed to increase its income by \$8000.
- **Special variations** occur where councils make specific requests to increase rates above the rate peg, which must be approved by IPART.

Councils have managed to achieve substantial rate revenue increases above the rate peg. Looking at the period from 2010/11 to 2018/19, we show what taxation revenue for local councils would have done applying the rate peg, and actual NSW local government taxation revenue (chart 3.6). In 2018/19 councils had revenue that was \$764 million higher than would have been the case applying the rate peg from 2010/11. This means growth outside the rate peg has been similar to the amount of revenue growth allowed by the rate peg.

We explore the issue of what is driving these increases in council rates outside the peg further below, after we have considered what the outcomes look like across councils.

### 3.6 Actual taxation increases and the rate peg



Data source: ABS Government Finance Statistics, Australia, 2018-19.

<https://www.abs.gov.au/statistics/economy/government/government-finance-statistics-annual/latest-release#data-download>; IPART rate peg determinations.

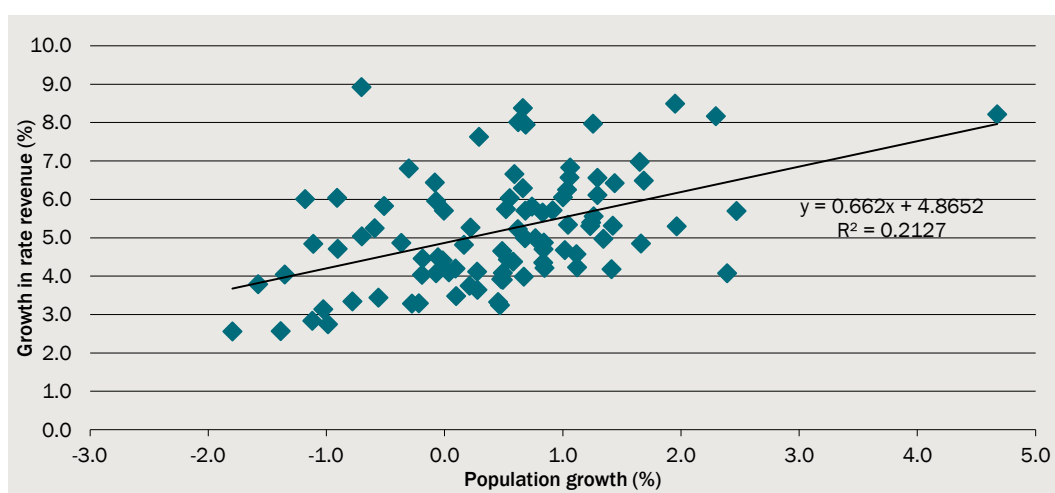
### *How is revenue currently impacted by growth at the individual council level?*

Although the rate peg does not allow faster growing councils to raise more rates revenue specifically, there is some evidence that over time, councils with higher population growth have also tended to experience faster growth in rates revenue. Over the period from 1998-99 to 2018-19, there is a positive statistically significant relationship between

population growth and growth in rates revenue (chart 3.7). This relationship implies the following.

- A council with no population growth has on average experienced growth in rates revenue of around 4.9 per cent per year.
- Each percentage point increase in average population growth, was associated with ~2/3 percentage point increase in rates revenue in addition to the 4.9 per cent 'base increase'.

### 3.7 Relationship between population growth and growth in rates revenue – 1998-99 to 2018-19



Data source: CIE based on data from OLG.

The average increase in the rate peg has been around 2½ to 3 per cent per year, implying that on average, growth outside the rate peg (through supplementary valuations) and special variations are contributing around 2 percentage points to growth in rates revenue, exclusive of population growth. Councils could have been partly compensated (through higher rates revenue) for higher population growth through either (or both):

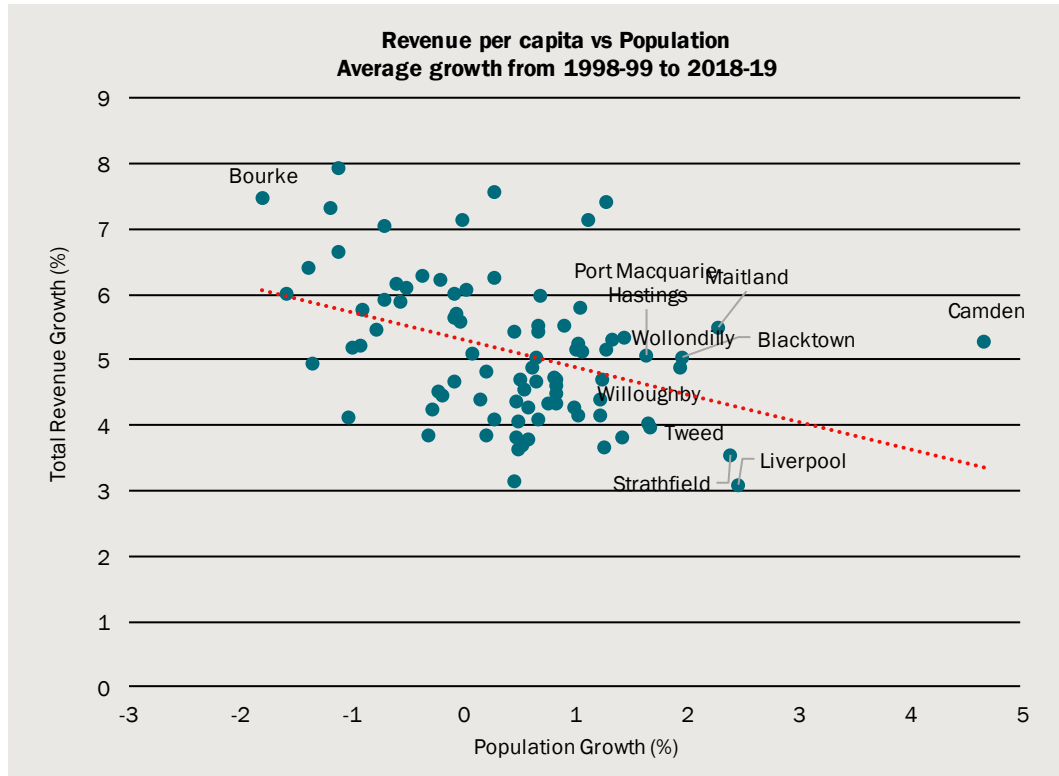
- Supplementary valuations — it is likely that councils with higher population growth may have also had more development to support the growing population. Development may also be associated with more activities that trigger a supplementary valuation (such as land re-zoning, subdivision etc.).
- Special variations — as special variations are approved (or not approved) through an application process, the impact on rates revenue across councils depend on the choices made by councils (i.e. whether to apply for a special variation and the magnitude) and the approval authority (currently IPART). As a result, there would not necessarily be a systematic relationship between variables, such as population growth and development activity in the LGA.

However, they have not been fully compensated in terms of rates revenue growth for the growth in population.

If we analyse total revenue, not just rates revenue, it is also evident that councils with fast growing populations have had slower growth in total revenue per capita (chart 3.8).

This indicates that even though councils have been able to achieve substantial growth outside the rate peg in aggregate, and councils with faster population growth have had higher growth in revenue and rates revenue, this has not been at the same level as their growth in population. Rather, councils that have had higher amount of population growth have tended to have smaller increases in per capita rates revenue.

### 3.8 Revenue per capita growth and population growth



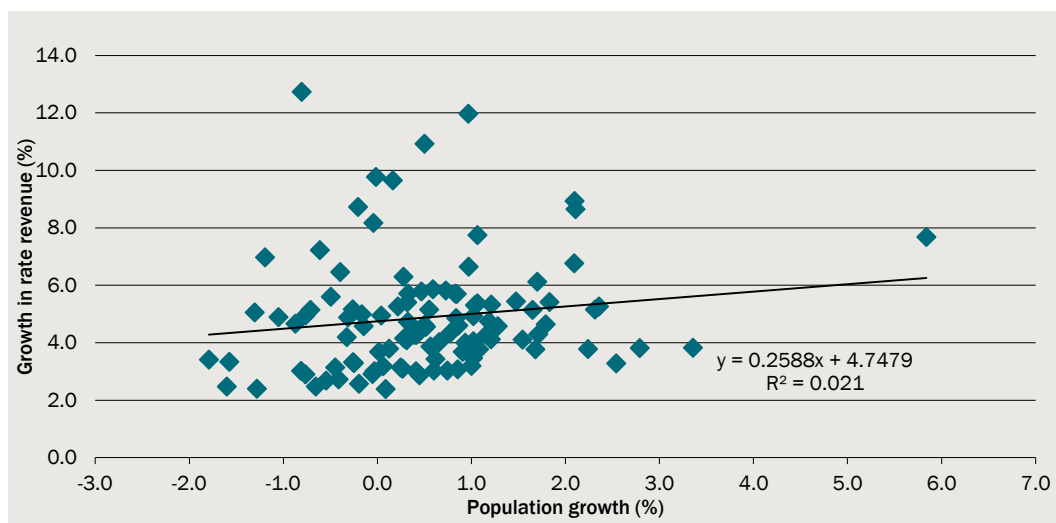
Note: Excludes LGAs that did not exist for the entire sample period. Excludes Albury, Lithgow & Oberon, whose borders changed in 2004. Excludes Hills & Hornsby, whose borders changed in 2016.

Data source: The CIE, based on data from <https://www.olg.nsw.gov.au/public/about-councils/comparative-council-information/your-council-report/>.

Interestingly, over a shorter timeframe the relationship between population growth and growth in rates revenue largely disappears, suggesting that growth outside the rate peg has become less correlated with population growth over time. Over the period from 2008-09 to 2018-19, the relationship between population growth and growth in rates revenue is much weaker (chart 3.9). This relationship implies the following.

- A council with no population growth has on average experienced growth in rates revenue of around 4.9 per cent per year.
- For each percentage point increase in population growth, general income increases by  $\sim\frac{1}{4}$  percentage point increase in growth in rates revenue, although the relationship is not statistically significant.

### 3.9 Relationship between annual average population growth and growth in rates revenue – 2008-09 to 2018-19



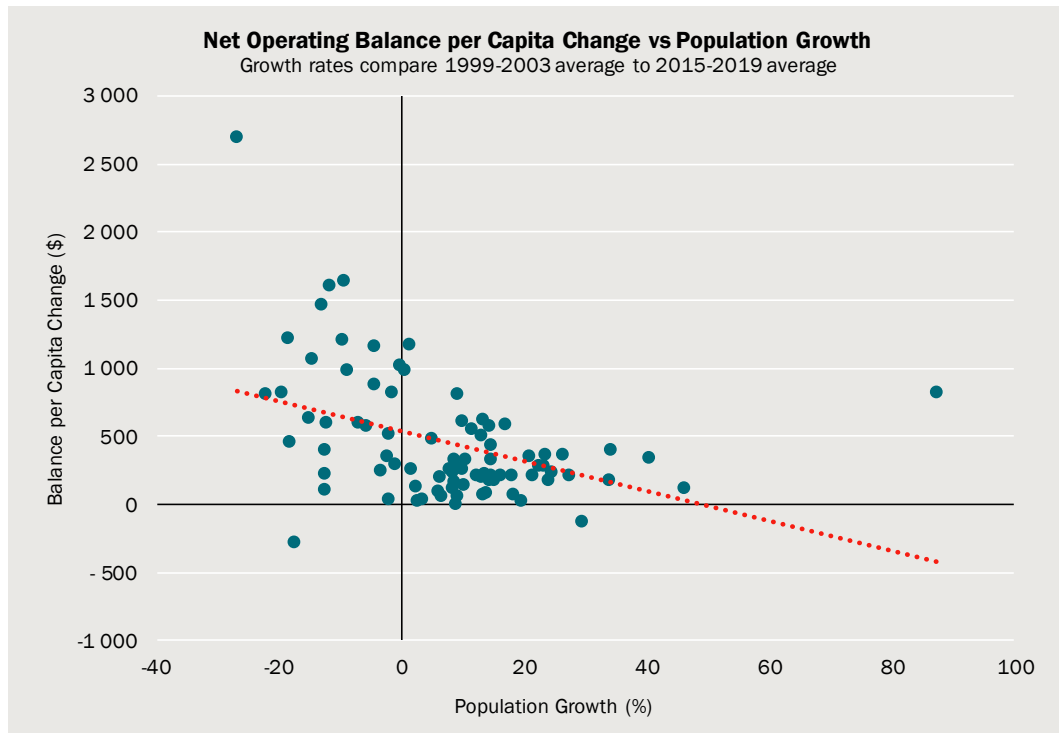
Data source: CIE based on OLG data.

Councils with faster population growth have also had slower growth in expenses per capita (see previous chapter) and less improvement in their net operating balance.

In aggregate, NSW councils have higher revenue than expenses, which results in net operating surpluses. Moreover, these surpluses have grown over time. Councils with fast growing populations experienced lower revenue per capita growth, which will worsen their net operating balance. On the other hand, they experienced lower expenditure per capita growth, which will improve their net operating balance. The former effect dominates, so councils with fast growing populations have tended to experience smaller improvements in their net operating balance.<sup>5</sup>

<sup>5</sup> This graph shows the change in net operating balance per capita over the sample period. However, rather than comparing the level of the balance in 2019 with its level in 1999 (as was done for the earlier graphs), it compares the *average* level from 2015-2019 with the *average* level from 1999-2003. The reason for this is that the net operating balance of an individual council tends to fluctuate a lot from year to year. Comparing the last year with the first year would place too much emphasis on what the level of the balance happened to be in those years, when it may have been temporarily high or low. Comparing an average over 5 years with another average over 5 years makes it easier to discern the economic relationships of interest.

### 3.10 Net operating balance per capita and population growth



Note: Excludes LGAs that did not exist for the entire sample period. Excludes Albury, Lithgow & Oberon, whose borders changed in 2004. Excludes Hills & Hornsby, whose borders changed in 2016.

Data source: The CIE, based on data from <https://www.olg.nsw.gov.au/public/about-councils/comparative-council-information/your-council-report/>.

The estimated relationship is quite strong, and is highly statistically significant. A council that had no population growth over the sample period would be expected to see their net operating balance per capita improve by \$535. However, a council whose population growth was 30 per cent over this period (which is not unusual) would be expected to have their net operating balance per capita improve by just \$205.

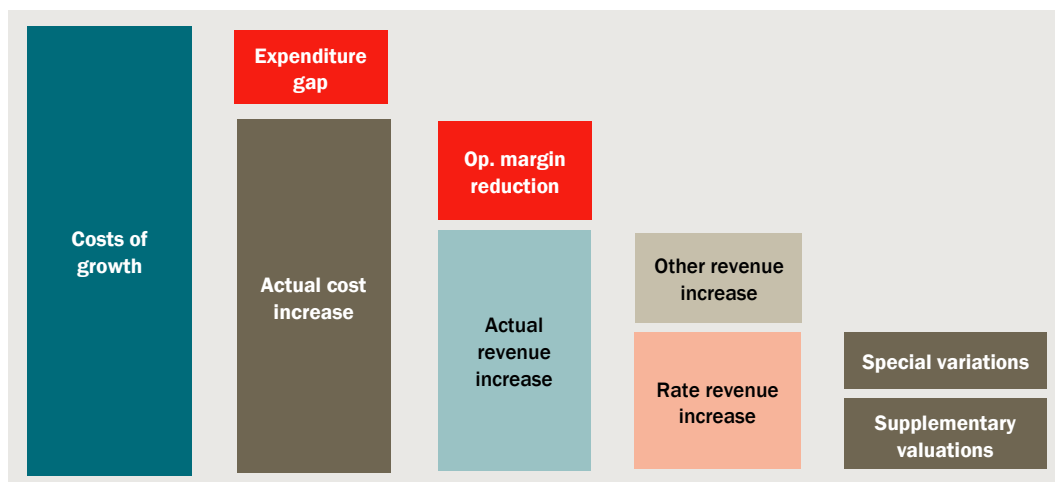
### *How are costs of growth being borne by councils?*

Broadly speaking, the analysis above indicates that historically the costs of growth have been accommodated by councils by:

- receiving a lower expenditure per capita than fully reflective of the costs of growth
- having a reduced increase in operating surplus, as compared to councils with slower growth.

This is shown graphically in chart 3.11. The size of the boxes is illustrative, based on the informed by the analysis above of how growth across councils has related to the different council financial variables. There is not sufficient data to exactly estimate each of these components in a way that is additive.

### 3.11 How have councils accommodated the costs of growth?



Data source: The CIE.

The two sources of rate revenue increases above cost growth, which is the focus of this work, have occurred from special variations and supplementary valuations. In the sections below we discuss how these have interacted with growth.

#### *How much do supplementary valuations account for growth?*

IPART has previously noted that:

Under the current UV methodology, the current ‘growth outside the rate peg’ process results in an increase in general income from new development that is typically much lower than the increase in demand for council services, and the associated increase in costs of servicing these new residents and businesses. This is because the land value (UV) will not increase as higher density apartments and businesses are built, unless there is land rezoning which increases land value. Furthermore, even if rezoning occurs, the increase in rates from the higher land value will be much lower than the growth in residents and businesses. Put simply, this is because as housing density increases, the land value becomes a smaller share of property value, and less representative of the costs of providing council services to ratepayers. Councils will only receive additional income by levying fixed charges (base or minimum amounts) across a larger number of properties<sup>6</sup>

The actual amount of rate growth that councils can receive from supplementary valuations depends on:

- the rate structure used by a council
  - councils with a larger part of rates from minimum and base rates will receive a larger increase from supplementary valuations
  - councils with larger differences between rates for land being rezoned (such as farmland to residential) will receive a larger increase from supplementary valuations

<sup>6</sup> IPART 2017, Review of the Local Government Rating System: Final Report, <https://www.ipart.nsw.gov.au/files/sharedassets/website/shared-files/investigation-section-9-legislative-review-of-the-local-government-rating-system/final-report-review-of-the-local-government-rating-system-december-2016.pdf>

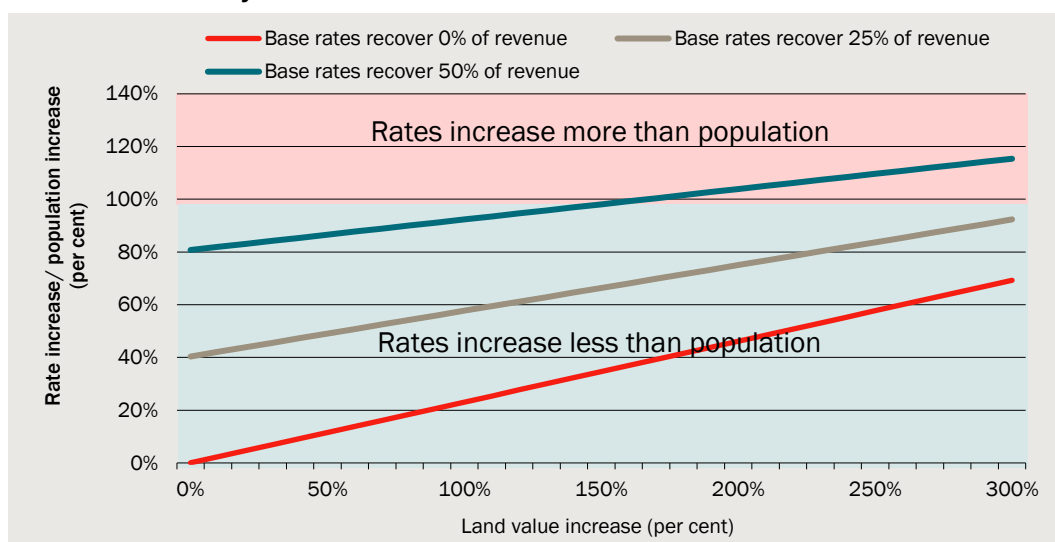
- the land value increase from the rezoning – where there is a larger land value increase then councils will receive a larger rate increase from supplementary valuations
- the extent to which population growth is accommodated through new development, as opposed to ways that do not trigger a supplementary valuation (such as more people in existing houses, secondary dwellings etc).

The timing difference between a rezoning and population growth may also vary across areas. Historically, NSW has had long periods of relatively little development while population growth continues.

To understand the type of shares that can be recovered under different circumstances, chart 3.12 shows the increase in rates as a proportion of the increase in population for variation in the share of revenue collected from base rates, and the land value increase from the redevelopment. This is for a redevelopment of a low density residential house into eight apartments, and an assumption of occupancy of the house of three people and occupancy of each apartment of 2 people.

- If the base rate is low (the red line) even with very large land value increases, a council would not recover the full costs of growth. If there is no land value increase, then a council would receive no increase in rate revenue through the supplementary valuation process.
- If the base rate collects a large amount of revenue, say 50 per cent which is the maximum allowed, then a council could increase rates in proportion to population growth as long as the land value increased by 170 per cent or more. This is a fairly large land value increase from a rezoning.

### 3.12 Rate recovery under different base rate structures



Data source: The CIE.

Councils could instead use a minimum rate structure, rather than a base rate and ad valorem rate. The minimum rate must be less than or equal to \$554 unless approval is



granted for a minimum above this level.<sup>7</sup> Many councils, particularly metropolitan, have higher minimum rates than this amount. The average rate revenue per property is ~\$1400, indicating that there would still be a substantial component related to the land valuation, unless a council has obtained an exemption to have a higher minimum rate. Minimum rates have a similar effect to base rates, in enabling councils to obtain a larger notional revenue increase associated with new developments than would be the case in the absence of a minimum rate.

To illustrate the effect of rezoning and redevelopment on council population growth and rate revenue from supplementary valuations, we have selected a set of local government areas for which we had information on rate structures. For each LGA, we have:

- assumed a 600m<sup>2</sup> low density residential block or blocks are rezoned and redeveloped for higher density residential activity
- used data on land values for different property types to estimate an initial land value and a rezoned land value for each property
- used data on average land area per apartment for strata titled properties for each LGA to estimate the number of new rateable properties after the development
- applied the current rate structure to estimate the rate revenue pre-development and post development. This gives the percentage change in rate revenue
- used the population per house and per apartment in each LGA to estimate the percentage change in the population.

From this, we calculate the **rate coverage ratio**, as the percentage change in rate revenue divided by the percentage change in population. A ratio of 1 means the LGA can increase its revenue exactly in proportion to population growth, through the supplementary valuation process.

We have then done a similar calculation for rural to residential zoning for metropolitan fringe councils (greenfield development).

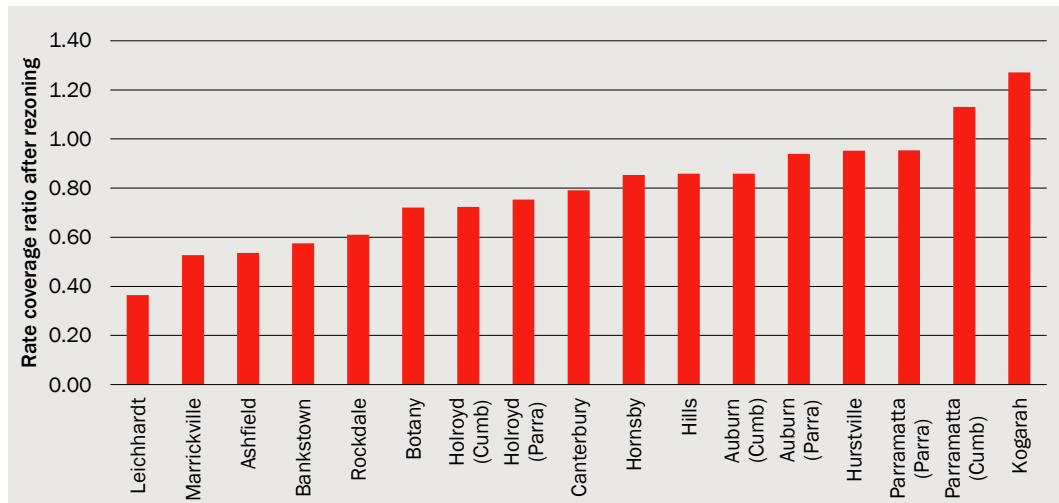
The results are shown in chart 3.13 for infill development and chart 3.14 for greenfield development. Both charts show that the impact of rezoning on councils is not homogenous and is driven primarily by rating structures, and also dwelling and population densities.

See appendix B for further information on how these ratios were calculated.

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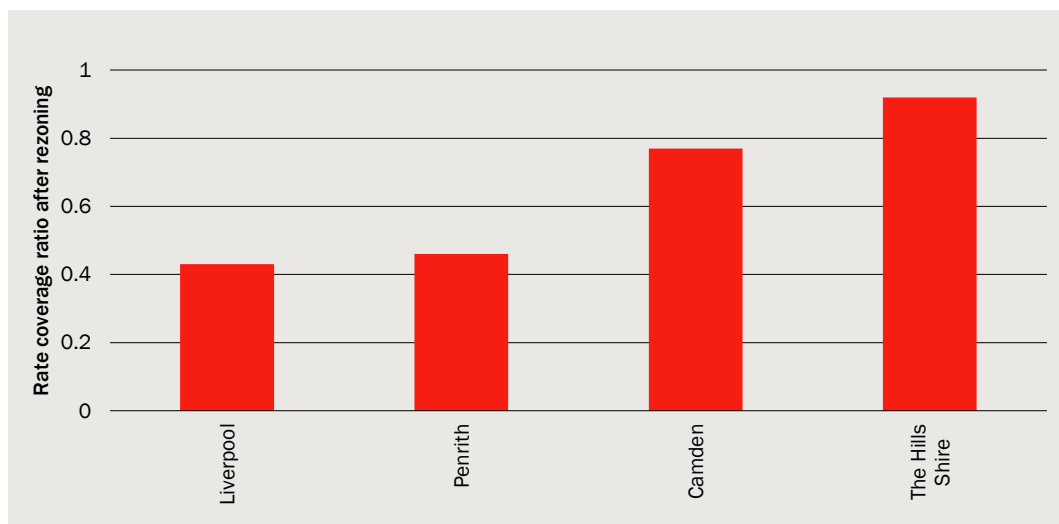
<sup>7</sup> Local Government (General) Regulation 2005, Clause 126, <https://www.legislation.nsw.gov.au/view/html/inforce/current/sl-2005-0487#sec.126>. This will increase to \$565 from 1 July 2021, *Local Government (General) Amendment (Minimum Rates) Regulation 2020*.

### 3.13 Rate coverage ratio from a residential rezoning to multiple units



Data source: Council Operational plans 2020/21, The CIE, NSW Land and Property Information database, ABS 2016 Census - Selected Dwelling Characteristics

### 3.14 Rate coverage ratio from a farmland rezoning to multiple residential plots



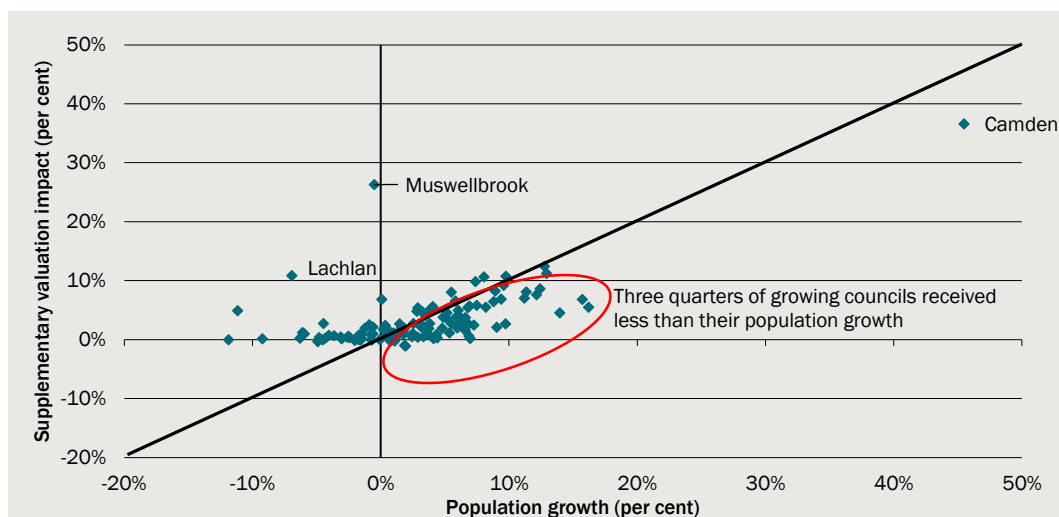
Data source: Council Operational plans 2020/21, The CIE, NSW Land and Property Information database, ABS 2016 Census - Selected Dwelling Characteristics

We have also examined data provided by NSW OLG on growth in the notional income related to supplementary valuations. This can include changes in notional income for issues outside of what might be considered 'growth' such as new mines, council mergers and changes in allocation of properties across LGAs. However, it mainly appears to reflect revenue from supplementary valuations.

In aggregate, this data suggests that, from 2015/16 to 2020/21, additions to notional income from supplementary valuations increased rate revenue by 3.8 per cent. This compares to 7.3 per cent population growth across NSW over this time period. **At an aggregate level then, supplementary valuations are allowing for revenue growth of slightly more than 50 per cent of population growth.**

Across individual councils, the relationships are more mixed. Three quarters of growing councils have had notional rate growth from supplementary valuations that is less than their population growth (chart 3.15). Councils without growth have tended to have supplementary valuations of close to zero. However, there are some exceptions, such as Muswellbrook, which we understand had adjustments related to coal mining.

### 3.15 Supplementary valuations as a share of population growth across councils from 2011/16 to 2020/21



Note: Excludes merging councils.

Data source: CIE analysis based on data provided by NSW Office of Local Government, and ABS Estimated Resident Population..

We can also examine the historical revenue over a longer period for a select number of councils, to understand how much growth they have had outside of that allowed from special variations and the rate peg. Table 3.16 shows a selection of Sydney LGAs population growth and revenue growth unaccounted for (which is presumably supplementary valuations). Woollahra and Mosman are LGAs that typify low population growth and limited rezoning, which results in very low revenue growth unaccounted for. Strathfield, Liverpool and Blacktown are LGAs that have experienced high population growth and high revenue growth unaccounted for, particularly Liverpool and Blacktown who are located on the fringe of Sydney. Liverpool and Blacktown have managed to achieve revenue growth from supplementary valuations very similar to their population growth. Other councils have much lower revenue growth than their population growth.

### 3.16 Rate revenue growth outside the rate peg and special variations

LGA	Population growth 2010/11 to 2018/19	Rate revenue growth unaccounted for, which is from supplementary valuations
	%	%
Woollahra	6.1	1.0
Mosman	5.9	1.2
Strathfield	21.9	7.2
Liverpool	20.6	19.5
Blacktown	19.4	21.1

Source: The CIE, ABS Estimated Resident Population 2019, IPART Special Variation determinations, Office of Local Government

### *Is there evidence of relative declines in service standards for fast growing councils?*

The evidence put together above suggests that NSW councils are currently not covering the full costs of growth, as a general rule. The implication is that growing councils should be facing pressure to reduce service standards in some way. This could mean:

- providing fewer services to residents, such as recreational facilities and cultural facilities
- not maintaining infrastructure.

The Your Council data collected for councils has some measure of service standards, in the form of infrastructure backlogs, and number of facilities available of different types. However, service standards in many ways are not observed. We have examined the available indicators to see whether there is any relationship between council growth and infrastructure backlogs or changes in infrastructure backlogs and can see no clear relationship. Some fast growing councils, such as Camden, have very low infrastructure backlogs. This is also true for some slow growing and declining councils.

This means that while we expect that there are some implications for the community resulting from councils being penalised financially for growth, it is not possible to measure these.

## 4 Options for adjusting the current system

### Options being considered for adjusting the rate peg

Currently, the rate peg operates as follows:

$$\text{Rate peg} = \Delta\text{LGCI} - \text{productivity factor} + \text{other adjustments}$$

Where:

- $\Delta\text{LGCI}$  is the percentage change in the local government cost index

In addition to the rate peg, councils receive changes in rates from supplementary valuations and special variations.

IPART is considering options for a reformed rate peg, as follows:

$$\text{Rate peg} = \Delta\text{LGCI} - \text{productivity factor} + \text{other adjustments} + \text{growth factor}$$

There are various ways that the growth factor could be applied. The options that are considered in this report are shown in table 4.1. These involve either:

- using population or rateable properties to determine the growth factor, and
- applying a percentage change or a \$/unit measure for the growth factor.

#### 4.1 Options for applying a growth factor

Option 1 (a & b)	Option 2 (a & b)
The growth factor would be equal to:	The growth factor would be equal to:
Option 1a: = % $\Delta$ population (by council)	Option 2a: $\frac{\Delta\text{population} \times \text{cost variable}}{\text{general income (year 0)}}$
Option 1b: = % $\Delta$ rateable properties (by council)	Option 2b: $\frac{\Delta\text{rate.prop.} \times \text{cost variable}}{\text{general income (year 0)}}$
Under this option IPART is also considering whether the growth factor needs to be multiplied by an additional factor which would capture the additional revenue councils receive from supplementary valuations.	IPART is considering whether the cost variable approach is a viable option and if the variable needs to be different depending on the council or cohorts of councils.

Source: IPART.

There are sub-options depending on how supplementary valuations are incorporated, whether the full population or ratepayer increase is factored in and whether the cost factor is different across councils. These issues are more important than the variations between Options 1a, 1b, 2a and 2b.

## How will revenue be impacted by different options?

Revenue impacts will depend on the specific factors chosen, and whether adjustments are made to existing processes such as supplementary valuations. The maximum revenue change that would be expected would occur if the population factor was added and nothing else changed. In this case, rate revenue would go up in each council by approximately the percentage increase in the population or ratepayers, compared to what would be expected under the existing system.

To show the types of impacts on revenue from the options, we develop hypothetical councils, and scenarios for how the population factor is applied. The hypothetical councils are shown in table 4.2.

### 4.2 Hypothetical councils

		Service levels and rates	
		Half of comparators	Double that of comparators
Rate structure	Entirely ad valorem	Council A	Council B
	50 per cent in base rates	Council C	Council D

Source: The CIE.

Suppose each of the hypothetical councils has a population and ratepayer increase of 10 per cent. And that the development of new land where these people live does not lead to any change in value, for simplicity. The revenue impacts for each council are shown in table 4.3.

- Pink is revenue growth that is less than population growth — in these scenarios existing ratepayers would face a decline in services, based on the evidence suggesting expenditure increases closely in line with population
- Teal is where revenue growth exactly matches population growth. This will still mean that in many cases rates for existing residents would increase, because the rate structure will tend to lead to lower rates for new residents in apartments, and
- Brown is where revenue growth is higher than population growth. In this case rates for existing residents would increase.

### 4.3 Rate revenue allowed from growth for hypothetical councils

Population factor	Supplementary valuation	Council A	Council B	Council C	Council D
Current system	Continues	0 per cent	0 per cent	5 per cent	5 per cent
Option 1a/1b	Continues	10 per cent	10 per cent	15 per cent	15 per cent
Option 2a/2b	Continues	20 per cent	5 per cent	25 per cent	10 per cent
Option 1a/1b	Removed	10 per cent	10 per cent	10 per cent	10 per cent
Option 2a/2b	Removed	20 per cent	5 per cent	20 per cent	5 per cent

Source: The CIE.

## 5 *Assessment of options*

- Option 1A and 1B are preferable to Option 2A and 2B, because of their simplicity and better alignment to minimising impacts on existing ratepayers
- It is difficult to differentiate between Option 1A (using population) and Option 1B (using rateable properties). We have a slight preference for population because this is consistent with what is used by the NSW Grants Commission and is independent of councils.
- Any options to include a population factor will be expected to have some impacts on existing residents, simply because of the design of rate structures.
- The most significant issue for the design of options is what happens to revenue increases from supplementary valuations. If both a population factor and supplementary valuation adjustment are included, then councils will double up on recovering the costs of growth.

### *Pricing principles*

IPART has developed the following pricing principles for allowing a population factor in the rate peg:

- no council is worse off under our methodology
- the methodology does not undermine NSW Government policy in support of rate-pegging
- the methodology is consistent with taxation/pricing principles (where applicable), including:
  - simplicity, efficiency, equity, sustainability
  - impactor pays, and particularly that new residents pay for growth
- the method is easy to implement and administer in annual updates to the rate peg.

Principles for taxation and pricing in general have been identified in a range of reviews, including the Henry Tax Review<sup>8</sup>, the Australian Treasury working group for business tax reform<sup>9</sup> and the NSW Productivity Commission Review of infrastructure

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<sup>8</sup> Henry Tax Review, box 2.1, [https://treasury.gov.au/sites/default/files/2019-10/afts\\_final\\_report\\_part\\_1\\_consolidated.pdf](https://treasury.gov.au/sites/default/files/2019-10/afts_final_report_part_1_consolidated.pdf)

<sup>9</sup> Australian Treasury 2012, Principles for business tax reform, <https://treasury.gov.au/publication/business-tax-working-group-consultation-guide/consultation-guide/principles-for-business-tax-reform>

contributions.<sup>10</sup> These are all similar, and in Box 5.1 we report those set out in the Henry Tax Review, as the broadest view of the overall taxation and welfare system in Australia.

### 5.1 Henry Tax Review principles

- Equity — the tax and transfer system should treat individuals with similar economic capacity in the same way, while those with greater capacity should bear a greater net burden, or benefit less in the case of net transfers.
- Efficiency — the tax and transfer system should raise and redistribute revenue at the least possible cost to economic efficiency and with minimal administration and compliance costs.
- Simplicity — the tax and transfer system should be easy to understand and simple to comply with. A simple and transparent system makes it easier for people to understand their obligations and entitlements. A simple and transparent system may also involve lower compliance costs for taxpayers and transfer recipients.
- Sustainability — a principal objective of the tax system is to raise revenue to fund government programs, including transfer payments. The tax system should have the capacity to meet the changing revenue needs of government on an ongoing basis without recourse to inefficient taxes.
- Policy consistency — the tax and transfer policy should be internally consistent. Rules in one part of the system should not contradict those in another part of the system.

Source: Henry Tax Review, box 2.1, [https://treasury.gov.au/sites/default/files/2019-10/afts\\_final\\_report\\_part\\_1\\_consolidated.pdf](https://treasury.gov.au/sites/default/files/2019-10/afts_final_report_part_1_consolidated.pdf).

In practice, council rates, however levied, are a highly efficient taxation mechanism. This is because they are a tax on land, which is a fixed resource. Past studies have found that land taxes have very small or even negative marginal excess burden, which is a measure of the economy-wide cost of the tax instrument per dollar of revenue raised. This compares to 30 cents for NSW payroll tax and 60-70 cents for stamp duties (see Attachment A). The fact that rates are a very efficient tax mechanism means that it would be preferable that if extra costs are required to be funded, this occurs through rates, rather than councils seeking other less efficient taxation mechanisms.

The equity impacts of the operation of alternative rate peg arrangements can be considered through how growth impacts on the rates and services for the existing population. In our view, an equitable system would mean:

- new residents pay rates at the same level as existing residents in similar circumstances — this is required for horizontal equity
- existing residents will be able to be given the same level of services through paying the same or a lower rate than their rates without population growth. This means:

<sup>10</sup> NSW Productivity Commission 2020, Review of infrastructure contributions, <https://www.productivity.nsw.gov.au/sites/default/files/2020-12/Final%20Infrastructure%20Contributions%20Review%20Report.pdf>.



- councils need to be able to obtain sufficient revenue to meet service expectations alongside the costs of population growth, so the rate peg should expand in line with the costs of providing services to a larger population
- councils should not expand their revenue as a result of population growth by more than the costs of servicing a larger population. This means that they should not be double-funded for growth through a population factor, in addition to increases in general income from supplementary valuations and special variations, and other increase in income from non-taxation related sources.

Simplicity is another key part of the rate peg process. State grants commissions have removed some adjustment factors because they were overly complex to administer.

## *Key issues for options*

### *Rateable properties or population*

IPART has considered two options to use as the underlying driver of costs — population or rateable properties. There are two differences between these measures:

- rateable properties includes non-residential activity — as shown in the previous chapter, councils with a large business focus, such as the Sydney CBD, are outliers in the cost per capita chart because they service non-residential activity
- within residential, properties and population will not necessarily move together, and they may be more or less directly related to costs. For example:
  - occupancy rates of property could change, meaning a larger population, but no change in rateable properties
  - rateable properties could change as development occurs but prior to the dwellings being occupied — i.e. a difference in timing
  - rateable properties may be a driver of costs related to infrastructure such as roads and stormwater
  - population may be a better driver for costs related to services such as health, education, community services

Both rateable properties and population should have data readily available.

- Population estimates are developed by the ABS, and revised after the Census. These are already used by the NSW Grants Commission
- The number of rateable properties is compiled by councils and provided to the Office of Local Government, and reported on the Your Council website.

Population has tended to be preferred by the State grants commissions as a driver, although some do use information on rateable properties or number of businesses. Population is also an independent measure, rather than one provided by councils.

Using historical data, we can compare the outcomes from using rateable properties versus using population. In aggregate for the 10 years to 2018/19, these have moved fairly similarly. Growth in rateable properties was 12.9 per cent and growth in population was 14.4 per cent (table 5.2).

## 5.2 Population and rateable property growth from 2008/09 to 2018/19

	2008/09	2018/19	Growth
	000	000	Per cent
Rateable properties	2 898	3 272	12.9
Population	6 983	7 987	14.4

Note: Excluded mining assessments as this is not available for 2008/09.

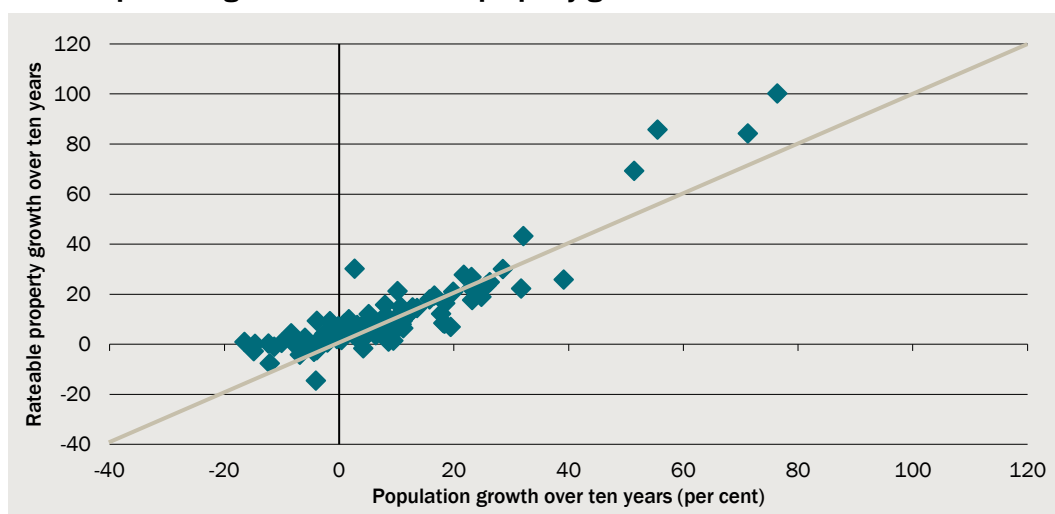
Source: The CIE, based on data from Your Council website, <https://www.olg.nsw.gov.au/public/about-councils/comparative-council-information/your-council-report/>.

For councils that have not merged we can compare growth at the individual council level (chart 5.3). For high growth councils, rateable properties has tended to grow more rapidly than population growth. For declining councils, population has declined, while rateable properties has not declined. For these councils they would not be penalised for population decline in any case.

The City of Sydney, identified as an outlier in earlier analysis, has had population growth of 39 per cent compared to rateable property growth of 26 per cent.

There are a few other anomalies, such as Forbes which has had little population growth but substantial rateable property growth.

## 5.3 Population growth and rateable property growth across councils



Note: Growth from 2008/09 to 2018/19. Excluded mining assessments as this is not available for 2008/09. Line is where rateable property growth equals population growth.

Source: The CIE, based on data from Your Council website, <https://www.olg.nsw.gov.au/public/about-councils/comparative-council-information/your-council-report/>.

We have also undertaken empirical work including both property numbers and population as drivers of costs. However, there is no indication that one or other of these measures encompasses the other in terms of containing the information about cost drivers.

### *Cost factor or percentage uplift*

- **CIE recommends using a percentage uplift (Option 1a and 1b) rather than a cost factor per person or rateable property (Option 2a and 2b)**

Councils will have differences in their rate levels per person and per property. This will reflect differences in the service levels they choose to provide, as well as differences in the cost drivers for different council areas. The rate revenue per person and per property for 2018/19 is shown for selected council types in table 5.4.

- On a per person basis, there is large variation in the mean rate revenue across different types of councils. Within each council type, there is also substantial variation.
- On a per property basis, the mean rates per property is very similar across different types of councils. However, within each council type, there is substantial variation.

#### **5.4 Rate revenue per person and property by council type 2018/19**

Council type	Rate revenue per person			Rate revenue per property		
	Mean	Minimum	Maximum	Mean	Minimum	Maximum
	\$/person	\$/person	\$/person	\$/property	\$/property	\$/property
Metropolitan	557	388	1 274	1 441	1 027	2 435
Metropolitan Fringe	569	413	840	1 466	1 112	1 960
Regional Town/City	692	521	920	1 469	1 114	2 115
Large Rural	834	528	1 699	1 497	921	3 610
Rural	922	443	1 718	1 410	501	2 473

Source: The CIE, based on Your Council data, <https://www.olg.nsw.gov.au/public/about-councils/comparative-council-information/your-council-report/>.

This variation means that applying any standard \$/unit factors would lead to differences in how this effects the increase in the rate cap. As set out in table 4.3, councils that had low rates per person or property would have higher percentage uplifts than the actual growth. I.e. if they had 10 per cent population growth, they may end up with a 20 per cent growth in their rate cap. And councils that had higher rates per person or capita would have the opposite effect. In our view this would not be consistent with councils rate caps increasing in a way proportionate to their population, to accommodate the costs of growth while maintaining similar standards of service.

### *Factor for Option 1a and 1b*

- **CIE recommends using a growth factor of 1 for Option 1a and 1b, as long as this is not additive to supplementary valuations**

For Option 1a and 1b, growth in population or ratepayers could be applied with a particular factor. For example, 10 per cent growth leads to growth in the rate peg of 10 per cent multiplied by  $\beta$ . If  $\beta$  was less than one, then this would be reflective of some economies of scale, so that costs went up by less than the growth in population or ratepayers.

The evidence set out in previous chapters suggests a growth factor at 1 or slightly below 1 would best reflect the costs of growth. We also note that there are other processes for

adjusting for economies of scale through the grants that address this issue, so for simplicity, a factor of 1 is preferable.

If the growth factor is additive to supplementary valuations, a factor smaller than 1 would be required, and probably closer to 0.5. As noted in chapter 2, the impacts of supplementary valuations differ across councils because of their rate structure, land value premiums and type of development. However, it would be too complex to try to apply a different factor for each council.

### ***Cost factors for Option 2a and 2b***

- **If Option 2a and 2b are pursued, CIE recommends using a different cost factor for each council type, reflective of the costs and the typical share of these recovered from rates**

As discussed above, we consider applying a percentage factor to be preferable to applying a \$/person or \$/ratepayer factor. If the latter is used, this would have to account for the cost per unit, and the share of this cost expected to be required to be recovered through rates. It is clear that:

- costs per person are systematically different across different types of councils (metropolitan/metropolitan fringe, regional, large rural and rural) (table 2.2)
- the share of revenue from rates is also systematically different across council groupings
- the rate revenue per person is systematically different across these groupings, but, interestingly, the rates per property are on average very similar (table 5.4).

This suggests that any cost factors would have to be applied across these groups at a minimum. Even with this, there remains substantial variation in costs and revenues per unit within groups.

## ***Assessment of options against principles***

### ***How can options meet the pricing principles?***

All four options could be designed to meet pricing principles, as set out in table 5.5. This would require:

- applying factors only for positive growth, and not to decline, and
- ensuring there was no doubling up between a population-related factor and the supplementary valuation process.

It is not possible to ensure growth is fully funded by the impactor (the new resident), unless rate structures were very cost reflective under any of the options. Given limits on how rates can be structured, we expect that existing residents may find their rates increasing with more growth, and new residents not paying the full cost of growth — this would be instead of existing residents' rates remaining constant and services being compromised.

There is very little to differentiate the specific options, apart from Option2A and 2B being slightly more complex to administer than Option 1A and 1B, because different cost factors and revenue shares from rates would be required for groups of councils. And as discussed in the section above, Options 1A and 1B would be more likely to lead to smaller impacts (both positive and negative) on rates for existing residents, while 2A and 2B could lead to differing impacts for councils that have rate revenue far less or more than average per unit.

## 5.5 Design of options to meet pricing principles

Principle	Option 1A	Option 1B	Option2A	Option 2B
No council is worse off	<ul style="list-style-type: none"> <li>Apply only to positive population growth AND</li> <li>Retain supplementary valuations OR take maximum of growth with current system and with population factor</li> </ul>	<ul style="list-style-type: none"> <li>Apply only to positive ratepayer growth AND</li> <li>Retain supplementary valuations OR take maximum of growth with current system and with population factor</li> </ul>	<ul style="list-style-type: none"> <li>Apply only to positive population growth AND</li> <li>Retain supplementary valuations OR take maximum of growth with current system and with population factor</li> </ul>	<ul style="list-style-type: none"> <li>Apply only to positive ratepayer growth AND</li> <li>Retain supplementary valuations OR take maximum of growth with current system and with population factor</li> </ul>
The methodology does not undermine support for rate pegging	<ul style="list-style-type: none"> <li>Limit doubling up of supplementary valuations and the population factor</li> </ul>	<ul style="list-style-type: none"> <li>Limit doubling up of supplementary valuations and the ratepayer factor</li> </ul>	<ul style="list-style-type: none"> <li>Limit doubling up of supplementary valuations and the population factor</li> </ul>	<ul style="list-style-type: none"> <li>Limit doubling up of supplementary valuations and the ratepayer factor</li> </ul>
<b>Pricing/taxation principles of:</b>				
Efficiency	<ul style="list-style-type: none"> <li>Most designs would lead to higher rate revenue, which is efficient source of revenue</li> </ul>	<ul style="list-style-type: none"> <li>Most designs would lead to higher rate revenue, which is efficient source of revenue</li> </ul>	<ul style="list-style-type: none"> <li>Most designs would lead to higher rate revenue, which is efficient source of revenue</li> </ul>	<ul style="list-style-type: none"> <li>Most designs would lead to higher rate revenue, which is efficient source of revenue</li> </ul>
Equity – impact on existing residents	<ul style="list-style-type: none"> <li>Cannot avoid existing residents bearing impacts of growth, as long as rate structure has current limitations</li> </ul>	<ul style="list-style-type: none"> <li>Cannot avoid existing residents bearing impacts of growth, as long as rate structure has current limitations</li> </ul>	<ul style="list-style-type: none"> <li>Cannot avoid existing residents bearing impacts of growth, as long as rate structure has current limitations</li> </ul>	<ul style="list-style-type: none"> <li>Cannot avoid existing residents bearing impacts of growth, as long as rate structure has current limitations</li> </ul>
Equity – can fully fund growth	<ul style="list-style-type: none"> <li>Factor of close to 1 and removal of supplementary valuation adjustment, OR</li> <li>Factor of less than 1 and include supplementary valuation – note that this will leave some councils under and some over</li> </ul>	<ul style="list-style-type: none"> <li>Factor of close to 1 and removal of supplementary valuation adjustment, OR</li> <li>Factor of less than 1 and include supplementary valuation – note that this will leave some councils under and some over</li> </ul>	<ul style="list-style-type: none"> <li>Factor of cost*rate share of revenue, and removal of supplementary valuation adjustment, OR</li> <li>Factor of less than cost*rate share of revenue, and include supplementary valuation – note that this will leave some councils under and some over</li> </ul>	<ul style="list-style-type: none"> <li>Factor of cost*rate share of revenue, and removal of supplementary valuation adjustment, OR</li> <li>Factor of less than cost*rate share of revenue, and include supplementary valuation – note that this will leave some councils under and some over</li> </ul>
Equity – do not double up on funding of growth	<ul style="list-style-type: none"> <li>Take maximum of growth with current system and with population factor OR remove supplementary valuation process</li> </ul>	<ul style="list-style-type: none"> <li>Take maximum of growth with current system and with population factor OR remove supplementary valuation process</li> </ul>	<ul style="list-style-type: none"> <li>Take maximum of growth with current system and with population factor OR remove supplementary valuation process</li> </ul>	<ul style="list-style-type: none"> <li>Take maximum of growth with current system and with population factor OR remove supplementary valuation process</li> </ul>

Principle	Option 1A	Option 1B	Option2A	Option 2B
	<ul style="list-style-type: none"> <li>Do not add population factor to supplementary valuation adjustment</li> </ul>	<ul style="list-style-type: none"> <li>Do not add population factor to supplementary valuation adjustment</li> </ul>	<ul style="list-style-type: none"> <li>Do not add population factor to supplementary valuation adjustment</li> </ul>	<ul style="list-style-type: none"> <li>Do not add population factor to supplementary valuation adjustment</li> </ul>
Sustainability	<ul style="list-style-type: none"> <li>Any changes will allow fast growing councils to be more financially sustainable</li> </ul>	<ul style="list-style-type: none"> <li>Any changes will allow fast growing councils to be more financially sustainable</li> </ul>	<ul style="list-style-type: none"> <li>Any changes will allow fast growing councils to be more financially sustainable</li> </ul>	<ul style="list-style-type: none"> <li>Any changes will allow fast growing councils to be more financially sustainable</li> </ul>
Impactor pays/new residents pay for growth	<ul style="list-style-type: none"> <li>Design rates to have higher base or minimum rates, but cannot achieve in full</li> </ul>	<ul style="list-style-type: none"> <li>Design rates to have higher base or minimum rates, but cannot achieve in full</li> </ul>	<ul style="list-style-type: none"> <li>Design rates to have higher base or minimum rates, but cannot achieve in full</li> </ul>	<ul style="list-style-type: none"> <li>Design rates to have higher base or minimum rates, but cannot achieve in full</li> </ul>
Easy to implement and administer	<ul style="list-style-type: none"> <li>Most simple would be to remove supplementary valuations and replace with population factor</li> </ul>	<ul style="list-style-type: none"> <li>Most simple would be to remove supplementary valuations and replace with ratepayer factor</li> </ul>	<ul style="list-style-type: none"> <li>Most simple would be to remove supplementary valuations and replace with population factor</li> <li>Cost factors are more complicated than percentage approach</li> </ul>	<ul style="list-style-type: none"> <li>Most simple would be to remove supplementary valuations and replace with ratepayer factor</li> <li>Cost factors are more complicated than percentage approach</li> </ul>

Note: Teal is where an option can be designed to achieve principle, and pink is where it cannot.

Source: The CIE.

To meet pricing principles, the main issues are:

- what happens to supplementary valuations, and
- what cost factor is chosen.

A discussion of the impacts of different way of retaining or removing supplementary valuations and the cost factor is show in table 5.6. The pricing principles could best be met by replacing the supplementary valuation process with the population or ratepayer adjustment. If this is not feasible for IPART or the government, then the next best option is that the revenue increase for council is the maximum of that using the current process and that where supplementary valuations are replaced with a population factor.

## 5.6 Treatment of supplementary valuations and growth factor

Option	No council is worse off	Does not undermine rate pegging	Recovers the costs of growth	Easy to implement
Factor of 1 and retain supplementary valuations	Yes, as long as population decline is not included	Will promote over-recovery of costs of growth, so may undermine rate pegging	Over-recovers costs of growth in total and for most councils	Retains complexity of supplementary valuations process
Factor < 1 and retain supplementary valuations	Yes as long as population decline is not included	Yes, as long as factor set to recover costs of growth in aggregate	Could set factor to recover costs of growth on average. However, this would mean some councils under-recover and some over-recover	Retains complexity of supplementary valuations process
Factor of 1 and use dual system of maximum of current process and population adjustment	Yes	Yes	Yes	More complex as operating two systems instead of one
Factor of 1 and remove supplementary valuations	Very unlikely that a council is made worse off, as long as population decline is not included	Yes	Yes	Simplest option as removes complexity of supplementary valuation process

Note: Pink is where an option does not meet criteria, and teal is where it does.

Source: The CIE.



## 6 *Conclusions and recommendations*

There is a range of evidence that councils in NSW that accommodate higher growth are penalised financially relative to those with low growth.

- Historical evidence suggests that each percentage point increase in average population growth, was associated with ~2/3 percentage point increase in rates revenue over a 20 year period. Over a shorter period, the estimated association is lower, at about 1/4
- Councils that have had faster growth have not had the same level of improvement in their per person net operating balance (revenue less operating costs), as expenditure has increased relatively more rapidly for these councils, as compared to revenues
- Evidence on the costs of growth from state grants commissions suggests that costs are close to proportional in how they increase with population.
- Analysis using existing council rate structures and land prices suggests council could increase their revenue from as little as one third to more than 100 per cent of the proportionate increase in growth through the supplementary valuation process.

These points are strongly supportive of an additional growth factor being allowed for.

The mechanisms to allow for a growth factor need to be consistent with IPART's pricing principles. This suggests:

- the rate growth allowed for a council should be the maximum of what a council would receive under the existing system and what it would receive through the application of the growth factor without supplementary valuations. This would:
  - ensure no council is worse off
  - ensure councils do not double up on the rate peg increase from growth
- An alternative would be to remove the inclusion of any increase in notional income related to supplementary valuations, and replace this with the growth factor.

All of IPART's four options could be made reasonably consistent with the pricing principles. Our analysis suggests Option 1A and Option 1B, which allow for a percentage uplift, are slightly preferable to Option 2A and Option 2B.

- The variation in costs and rate revenue per unit across councils means that applying any standard \$/unit factors as in Option 2A and Option 2B would lead to differences in how this effects the increase in the rate cap. For example, councils that had low rates per person or property would have higher percentage uplifts than their actual growth. I.e. if they had 10 per cent population growth, they may end up with a 20 per cent growth in their rate cap. And councils that had higher rates per person or capita would have the opposite effect. In our view this would not be consistent with councils' rate caps increasing in a way proportionate to their population, to accommodate the costs of growth while maintaining similar standards of service.
- Option 1A and Option 1B will also be simpler to implement.

In terms of whether to prefer Option 1A (using population) or Option 1B (using rateable properties), either would be suitable. We retain a slight preference for Option 1A because population is used by the NSW Grants Commission and is derived independently of councils. We note that population or rateable properties will be robust measures of growth for most councils, but there may be exceptions, such as the City of Sydney.

Finally, in terms of what cost factor to apply — i.e. whether 10 per cent growth should lead to a 10 per cent increase in costs, or something less — we recommend using a factor of 1. The evidence suggests that economies of scale may exist, but are relatively small. State grants commissions already take this into account in their distribution of grants, and this equalisation can be left to that process, with a simpler 1:1 ratio included for a population factor for the rate peg.

## A Results of studies examining the efficiency of taxes

### A.1 Relative efficiency of selected taxes (descending order), by study

KPMG Econtech <sup>a</sup>		KMPG Econtech		Commonwealth Treasury	
2010	MEB <sup>b</sup>	2011	MEB <sup>b</sup>	2015	MEB <sup>b</sup>
Municipal rates	0.02	Land tax	0.09	Broad based land tax	-0.1
GST	0.08	GST	0.12	Personal income tax (labour & capital)	0.16
Land taxes	0.08	Personal income tax	0.24	Broad based GST	0.17
Labour income tax	0.24	Motor vehicle stamp duty	0.33	Current GST	0.19
Conveyancing stamp duties	0.34	Payroll tax	0.35	Labour income tax	0.21
Motor vehicle stamp duties	0.38	Company tax	0.37	Company tax	0.50
Corporate income tax	0.40	Commercial transfer duty	0.74	Stamp duty on conveyances	0.72
Payroll tax	0.41	Residential transfer duty	0.85		

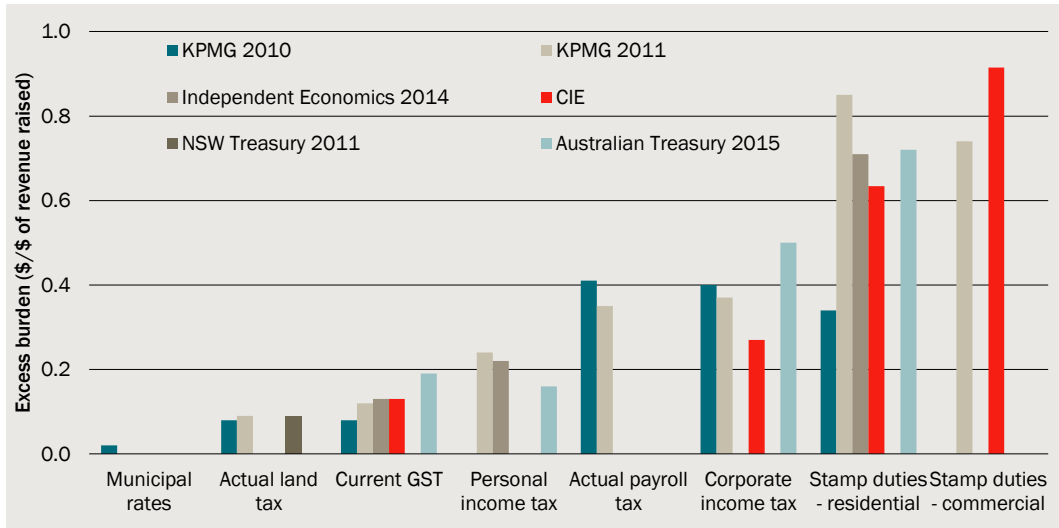
<sup>a</sup> Modelling and results were prepared for and incorporated into the Henry Tax Review

<sup>b</sup> Marginal excess burden is the cost of the tax due to changing it by a small amount (usually such that total government revenue increases by \$1).

Note: In all studies, all taxes are imposed at the Federal level. That is, no taxes create a distortion that sees economic resources move across state borders within Australia.

Sources: KPMG Econtech 2010, CGE analysis of the current Australian tax system, prepared for Department of Treasury, 26 March; KPMG Econtech 2011, Economic analysis of the impacts of using GST to reform taxes; Australian Treasury 2015, Understanding the economy-wide efficiency and incidence of major Australian taxes.

**A.2 Excess burden of selected taxes**



Note: NSW Treasury 2011 and Independent Economics 2014 are as reported in Australian Treasury 2015. The chart does not include modelling of hypothetical taxes, such as a broad-based payroll tax or broad-based land tax. These are shown in the body of the report.

Data source: The CIE; KPMG Econtech 2010, CGE analysis of the current Australian tax system, prepared for Department of Treasury, 26 March; KPMG Econtech 2011, Economic analysis of the impacts of using GST to reform taxes; Australian Treasury 2015, Understanding the economy-wide efficiency and incidence of major Australian taxes.

## *B Rate coverage ratios*

We estimated the rate coverage ratios for rezoning residential land to high-density units as well as farmland to residential plots. The rate coverage ratio is calculated as the growth in rates divided by the growth in population.

Land values for each rating category, were calculated per LGA using land value data from the 2020 NSW Land and Property Information database. See tables B.2 and B.3 for land value information. The rating categories were collated from the 2020/21 operational plans of the respective councils, see table 3.2.

### *Residential to units*

We assumed an average R2 plot size of 600sqm across each LGA. The land value and residential rating structure per LGA were applied for each plot to determine the rates payable per plot. We calculated the median apartment size and median price per sqm for units across each LGA. We then applied the residential rating structure to each unit to calculate the rates payable per unit. In order to show the effect on rates per person, we used the 2016 ABS Census data for the average number of people residing in each dwelling type.

### *Farmland to residential*

We assumed an average RU1 plot size of 80 000sqm and a conversion efficiency of 0.6, meaning that 60 per cent of the total RU1 land value would become R2 residential. The farmland rating structure per LGA were applied for each plot to determine the rates payable per plot. We assumed an R2 plot size of 400sqm which resulted in 120 dwellings per rural plot. We then applied the residential rating structure to each residential plot to calculate the rates payable per plot. We assumed that the number of people per dwelling would be equal for rural and residential dwellings.

### **B.1 Rating structures for selected LGAs**

LGA	Rating category	Base Rate	Ad Valorem	Minimum rate
		\$	\$	\$
Bankstown	Residential		0.00207299	636.80
Canterbury	Residential		0.00180159	713.90
Parramatta (Parramatta)	Residential		0.00159173	708.19
Auburn (Parramatta)	Residential		0.00139158	610.68
Hornsby (Parramatta)	Residential	568.08	0.00092785	

LGA	Rating category	Base Rate	Ad Valorem	Minimum rate
		\$	\$	\$
Hills (Parramatta)	Residential	519.78	0.00083180	
Holroyd (Parramatta)	Residential	535.13	0.00131420	
Auburn (Cumberland)	Residential		0.00152494	594.62
Holroyd (Cumberland)	Residential	507.00	0.00122623	
Parramatta (Cumberland)	Residential		0.00141701	708.08
Kogarah	Residential		0.00157590	966.73
Hurstville	Residential		0.00197740	585.72
Ashfield	Residential	727.00	0.00097919	
Leichhardt	Residential		0.0013440	686.00
Marrickville	Residential		0.00103706	710.00
Rockdale	Residential		0.00149773	768.52
Botany	Residential		0.00091445	553.62
Camden	Residential	658.00	0.00129309	
Camden	Farmland	658.00	0.00064655	
Liverpool	Residential	583.00	0.00115200	
Liverpool	Farmland	583.00	0.00078000	
Penrith	Residential		0.00323715	1 133.00
Penrith	Farmland		0.00161858	1 133.00
The Hills Shire	Residential	520.86	0.00082271	
The Hills Shire	Farmland	451.12	0.00036245	

Source: Council Operational Plans and Revenue Policies

## B.2 Average land values for R2 residential and R4 high-density residential LGAs

LGA area	R2 zoned land value per sqm	Rates per residential dwelling	R4 zoned land value per sqm	Median number of units per block	Rates per unit size	Median \$/sq
	\$	\$	\$	#	\$	
Bankstown	1 052	1 309	2 106	9	637	
Canterbury	1 052	1 137	2 106	9	714	
Parramatta (Parramatta)	1 015	969	1 973	13	708	
Auburn (Parramatta)	1 015	847	1 973	13	611	
Hornsby (Parramatta)	1 015	1 133	1 973	13	750	
Hills (Parramatta)	1 015	1 026	1 973	13	682	
Holroyd (Parramatta)	1 015	1 335	1 973	13	792	
Auburn (Cumberland)	921	842	1 759	13	595	

LGA area	R2 zoned land value per sqm	Rates per residential dwelling	R4 zoned land value per sqm	Median number of units per block	Rates per unit size	Median \$/sq
	\$	\$	\$	#	\$	
Holroyd (Cumberland)	921	1 184	1 759	13	719	
Parramatta (Cumberland)	921	783	1 759	13	708	
Kogarah	1 029	973	5 189	13	967	
Hurstville	1 029	1 221	5 189	13	933	
Ashfield	2 988	2 482	3 381	15	962	
Leichhardt	2 988	2 409	3 381	15	686	
Marrickville	2 988	1 859	3 381	15	710	
Rockdale	1 770	1 590	2 865	16	769	
Botany	1 770	971	2 865	16	554	

Source: Council Operational plans 2020/21, The CIE, NSW Land and Property Information database.

### B.3 Average land values for RU1 farmland and R2 residential LGAs

LGA	RU1 zoned land value per sqm	Rates per farm	Number of residential plots per rezoning	R2 zoned land value per sqm	Rates per residential dwelling
	\$	\$	\$	#	\$
Camden	10	1 154	120	445	888
Liverpool	23	2 016	120	616	867
Penrith	19	2 436	120	529	1 133
The Hills Shire	10	740	120	498	685

Source: Council Operational plans 2020/21, The CIE, NSW Land and Property Information database.



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