



**SUMMARY AND METHODOLOGY OF THE FINAL RESEARCH  
REPORT**

**Taxation of the housing sector:**

*Prepared for  
Housing Industry Association Ltd  
26 June 2019*

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## *Summary*

### *Housing is one of the most heavily taxed sectors of the economy*

- The housing sector, via land tax, municipal rates, other taxes on immovable property and stamp duties, directly contributes around \$51 billion in taxation revenue each year to state and local governments in Australia (about 10 per cent of the total revenue collected by all tiers of government).
- Dwelling ownership and housing construction provide 14 per cent of total GST revenue, despite providing only 11 per cent of economy wide Gross Value Added.

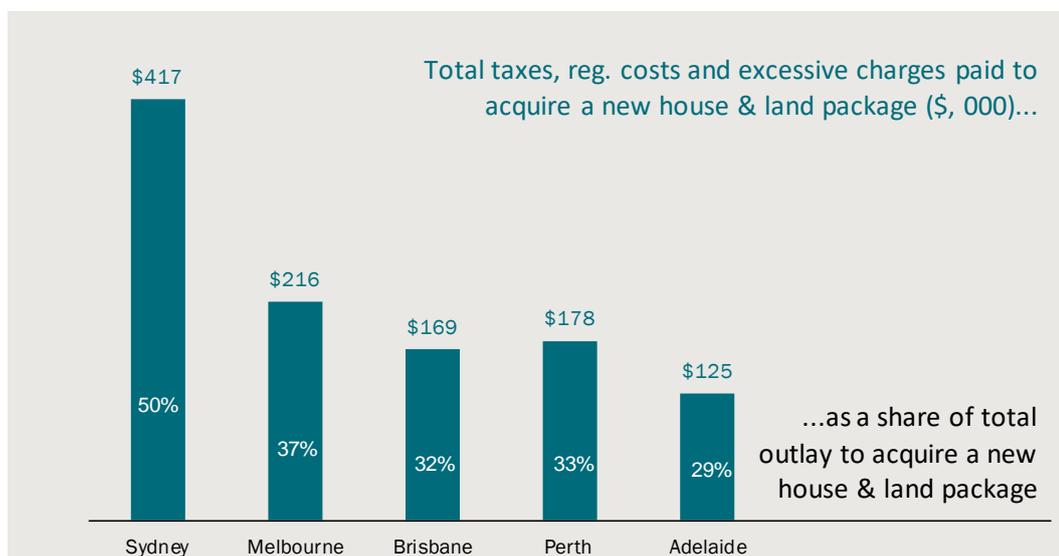
### *Taxes and regulatory costs add substantially to the cost of housing*

- The total outlay made to acquire a new home includes: resource costs (the processes, materials and work that go into creating it), statutory taxes (GST, income taxes, stamp duties, etc.), regulatory costs (cost increases that are created when government policies restrict the supply of land and housing relative to demand), and excessive charges (where the price charged for government services or infrastructure is more than the resources required to provide these items).
- In 2016-17, in Sydney, we estimate that of the total outlay made to acquire a new house & land package in a Greenfield estate (about \$841 000), only 50 per cent of this outlay reflects resource costs (about \$424 000). The other 50 per cent (around \$417 000) is made up of regulatory costs, statutory taxes and excessive charges (which are respectively: 26 per cent, 21 per cent and 2 per cent of the outlay).
- In other cities, as a share of the total outlay, we estimate the regulatory costs, statutory taxes and excessive charges are Melbourne: 37 per cent, Brisbane: 32 per cent, Perth: 33 per cent and Adelaide 29 per cent. See Chart 1.1.
- For new apartments in Infill developments, as a share of the total outlay, we estimate the regulatory costs, statutory taxes and excessive charges are Sydney: 37 per cent, Melbourne: 35 per cent, Brisbane: 34 per cent, Perth: 32 per cent and Adelaide: 28 per cent. See Chart 1.2.

### *Regulatory costs on land are driving differences across cities*

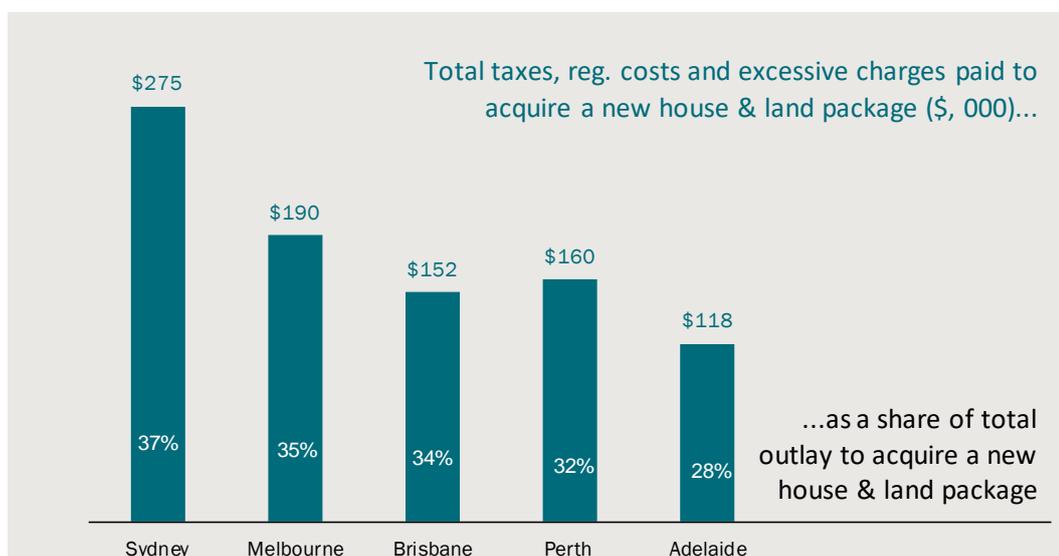
- We estimate the regulatory costs created by the system of zoning and associated development controls are more substantial in Sydney Greenfield development than in other cities, and higher in Greenfield development than in apartment development. This is the biggest factor driving differences in our results.

### 1.1 Total statutory taxes, regulatory costs and excessive charges paid within total outlay to acquire a new house & land package in a Greenfield estate (2016-17)



Data source: The CIE

### 1.2 Total statutory taxes, regulatory costs and excessive charges paid within total outlay to acquire a new apartment in an Infill development (2016-17)



Data source: The CIE

### *Most of the burden of costs is borne by consumers*

- Analysis with an economy-wide model suggests that the majority of the increase in costs from the taxes and regulations will be borne by consumers.

# 1 Introduction

The Housing Industry Association (HIA Ltd) has commissioned The CIE to perform a bottom-up investigation of the magnitude of statutory taxes and regulatory costs in housing costs.

Most of this report is devoted to measuring the statutory taxes and regulatory costs in *new* homes (that is: new house & land packages and new apartments). But, as new housing and existing housing are substitutes, statutory taxes and regulatory costs that are imposed on new houses will, over time, also cause the price of existing housing to rise, which we discuss.

In addition to the bottom up analysis, we also provide a comparison of taxes paid by different industries to illustrate the relative burden in the case of the housing industry. Part of this analysis also includes model simulations to illustrate the incidence of housing cost increases.

## *This report*

This report is structured as follows.

- **The remainder of this chapter** sets out the broad economic framework we adopt when considering the impact of taxes and regulation on the cost of housing.
- **Chapter 2** uses ABS data to compare how taxes on housing activity compare with taxes on other activities. This chapter includes a model-based analysis which expands this static picture by showing the comparative level of taxes generated by an expansion in some relatively highly taxed industries.
- **Chapter 3** provides an overview of our bottom up analysis.
- **Chapter 4** sets out our assumptions about the development process which provides a framework for gathering information and setting out the impacts of taxes and regulatory effects along the development process.
- **Chapter 5** presents the results of our financial analysis where we do a bottom-up calculation for the outlay homebuyers make to acquire a new house & land package and a new apartment.
- **Chapter 6** presents a cross-check on our high-level results.
- **Chapter 7** presents our economic analysis where we split the total outlay into resource costs, regulatory costs, statutory taxes and excessive charges.
- **Chapter 8** discusses the residual we calculate in the raw land value, and the evidence we use to interpret this as regulatory cost on land.

- **Chapter 9** presents a model-based analysis of the incidence — who actually pays — the tax.

This project synthesises a very large amount of publicly available data and other evidence and presents this in an accessible and coherent framework. The goal is not to perform a cost-benefit analysis on any individual driver of housing costs or government policy. Costs identified in this report should be compared to any benefits created by the underlying policies.

### *Framework for new housing*

Chart 1.1 shows our broad framework for considering the drivers of prices and costs for new housing.

The demand curve for new housing captures willingness of Australians to pay for new housing, driven by their preferences, the size of the economy (which determines the income of residents) and population. The demand curve is downward sloping because an increase in demand tends to push the price of housing up and/or the quantity traded up. Government policy influences demand for housing (for example, government can influence the size of the population via immigration). Consideration of these policies is beyond the scope of this paper. Therefore, we essentially treat demand for housing as fixed.

There is one statutory tax we consider – stamp duties on conveyances – that is levied on consumers. In our framework, stamp duty causes a difference between transfer price of the new house & land package or new apartment (labelled P-transfer) and the total outlay the purchaser must actually make to acquire the new house & land package or new apartment (labelled P-outlay). The total outlay equals the transfer price plus the stamp duty plus other transfer costs.

The supply curve for new housing captures the resource costs incurred by housing developers and builders to create and provide new housing. The supply curve is upward sloping because if resource costs increase, this tends to cause the price of housing to increase.

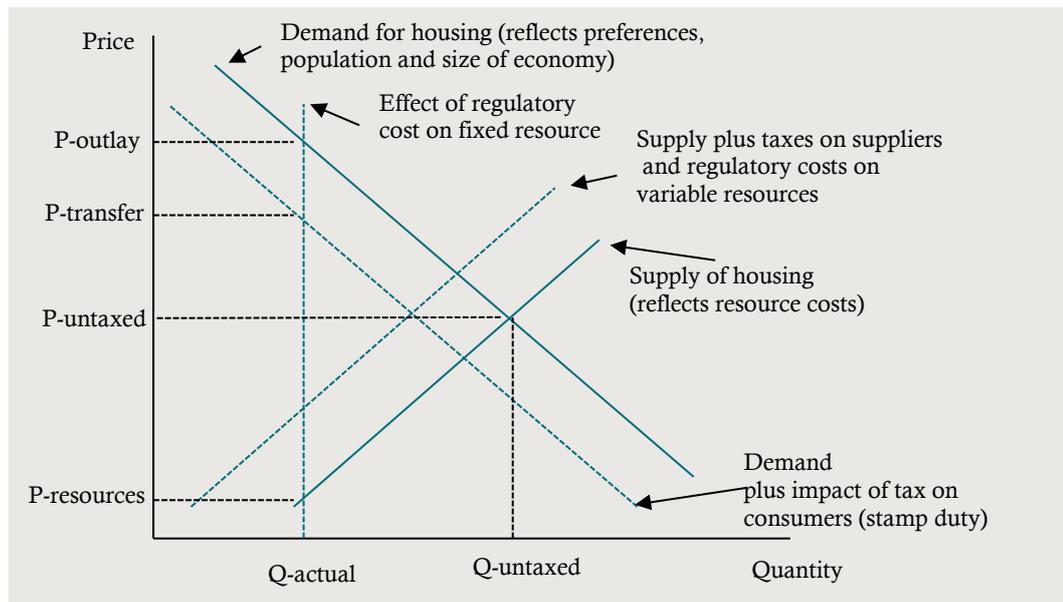
Governments levy various statutory taxes (and other revenue raising measures) on the supply of housing. These taxes include GST on new dwelling construction, income taxes levied on workers who provide labour to housing development, etc. In effect, these taxes add to the cost incurred to supply housing. Governments can also impose regulatory costs on variable resources. For example, if developers are forced to hold land for an unreasonably long period of time while they wait for appropriate approvals to commence development, this adds to their costs to finance the land holding (interest costs on debt). These statutory taxes on supply and regulatory costs on variable resources, in effect, add to the cost of supplying each new house. We capture these costs with a new supply curve, shifted up to reflect higher costs (see Chart 1.1). We present data, evidence and estimates on these costs in this paper.

Governments can also impose regulatory costs on land, the fixed resource in the supply of new housing. In this paper, we present data, evidence and estimates on these costs. In

essence, the system of zoning and associated controls on land use and development, at any single point in time, acts like quota or upper limit on the amount of housing that can actually be supplied. If this quota is not adjusted appropriately, and demand runs ahead of it, this results in consumers competing for an inadequate amount of housing, which pushes up its price. The upper limit on the supply of housing at any given time, caused by the system of zoning and associated land and development controls, is captured with a vertical line in Figure 1.1, which sets an effective upper limit on the housing that can be supplied at  $Q_{\text{actual}}$ .

If the government policies that we consider in this paper (statutory taxes, other revenue raising measures and regulatory costs), were not enacted the price of new housing and quantity traded would be  $P_{\text{untaxed}}$  and  $Q_{\text{untaxed}}$ , respectively. As a result of the statutory taxes and regulatory costs created by the government, the quantity traded for new housing falls from  $Q_{\text{untaxed}}$  to  $Q_{\text{actual}}$ . The total (average) outlay made by purchasers of new housing is  $P_{\text{outlay}}$ . The cost of the resources used to create and provide new houses is  $P_{\text{resources}}$  (on average). In Chapter 7 we use our calculated results to add numbers to this diagram.

### 1.1 Framework for considering the drivers of prices and costs of new house & land packages and new apartments



Data source: The CIE

### *Interpreting the components of housing costs*

Resource costs are the activities undertaken and the materials used to create and provide the new home. The developer's job is to source and coordinate these resources. Resource costs include a fair developer margin.

If a purchaser pays for more 'resource costs' they obtain a home that is larger, or is higher quality, etc. The beneficiary of resource costs is therefore the purchaser.

Statutory taxes and other revenue raising measures the government levies/imposes on the development process raise revenue that funds government operations and public services. If the government decides to increase these measures, this will cause the total outlay made by the new homebuyer to increase. The new homebuyer does not receive a larger or a higher quality home because of this increase in the outlay. Rather, it results in an increase in funding for government operations and public services; which the new homebuyer may benefit from.

Regulatory costs are other government measures which increase costs in the development process, but which do not create more revenue for the government. For example, developers require various approvals from the government to proceed with new developments. Consultations with HIA suggest developers can face delays which are unreasonable in the government-controlled processes that generate these approvals. As developers generally use debt to finance land purchases, these unreasonable delays add to the interest costs they incur, which are passed on to new homebuyers via a commensurate increase in the transfer price the developer charges for the new home.

Again, the new homebuyer does not receive a better or a larger home if they are forced to pay for more regulatory costs. The government does not directly benefit either, as the measures do not explicitly raise revenue. In fact, the main beneficiaries of regulatory costs are existing home owners. This is because new homes and existing homes (to some extent) are substitute products. If the government creates a policy that imposes regulatory costs on the creation and provision of new homes, this will cause the price of these new homes to increase; it will also cause the price of existing homes to increase, as buyers who can no longer afford a new home will try to acquire an existing home, and their demand will push up the price of existing homes.

## 2 *Statutory taxes on housing, and how they compare to other industries*

### *Housing taxes are an important revenue source for governments*

Just under 70 per cent of the tax revenue collected by Australian Governments (Federal, State and Local) is collected as taxes on income. Because this tax is levied on factors of production (labour and capital) and is not levied on producers, consumers or transactions, it is not targeted at particular industries or at particular forms of activity.

Around 13 per cent of revenue is GST revenue. In practice this does target particular forms of activity, as many industries (exports and other industries) are exempt. In 2014-15, dwelling ownership and housing construction provided 14 per cent of total GST collections, despite providing only 11 per cent of total Gross Value Added across industries.<sup>1</sup> Dwelling ownership and residential construction provides a relatively high amount of GST because its output is not GST exempt (output is not exported and it not subject to a specific exemption).

Taxes levied on land and housing (land tax, municipal rates, other taxes on immovable property and stamp duties on conveyances) are the largest of the taxes which target a particular form of activity or industry. These taxes generated \$51 billion of revenue for governments in 2016-17 (10 per cent of revenue).

#### 2.1 Tax revenue collected by Australian Federal, State and Local Governments

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Tax on income and super.	231	242	249	259	266	282
GST	50	51	57	58	62	64
Payroll	20	21	21	22	23	23
Taxes on land and housing <sup>a</sup>	32	35	40	43	48	51
Oil, petrol and fuel	17	18	18	18	18	18
International trade items	7	8	9	11	14	14
Motor vehicle taxes & fees	8	9	9	9	10	10
Insurance	5	5	5	6	6	6
Gambling	5	5	5	6	6	6
Other specific levies and taxes	15	21	22	14	14	15
<b>Total</b>	<b>391</b>	<b>416</b>	<b>436</b>	<b>446</b>	<b>466</b>	<b>489</b>

<sup>1</sup> Data are taken from 2011-14-15 Input-Output Tables ABS Cat 5209.0

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Tax on income and super.	59%	58%	57%	58%	57%	58%
GST	13%	12%	13%	13%	13%	13%
Payroll	5%	5%	5%	5%	5%	5%
Taxes on land and housing	8%	8%	9%	10%	10%	10%
Oil, petrol and fuel	4%	4%	4%	4%	4%	4%
International trade items	2%	2%	2%	2%	3%	3%
Motor vehicle taxes & fees	2%	2%	2%	2%	2%	2%
Insurance	1%	1%	1%	1%	1%	1%
Gambling	1%	1%	1%	1%	1%	1%
Other specific levies and taxes	4%	5%	5%	3%	3%	3%

<sup>a</sup> Taxes on land and property include land tax, municipal rates, other taxes on immovable property and stamp duty on conveyances  
Source: ABS Cat 5506

### *Activity in land and housing is taxed at a relatively high rate*

The price that home owners and home buyers pay to own and build housing implicitly includes more statutory taxes than the price they pay for many other goods and services, because of the magnitude of taxes specifically levied on dwelling ownership and dwelling construction, and the relatively large amount of GST levied.

Data from the ABS Input-Output tables directly illustrates this. From these data tables, in 2014-15, taxes levied directly on production (in housing this includes: land taxes and municipal rates; across all industries this includes payroll tax) and products (in housing across this includes stamp duties; across all industries this includes GST) summed up to around 13 per cent of the value of sales,<sup>2</sup> which is higher than the industry wide average of 5 per cent.

For comparison: industries like the ‘wine, spirits and tobacco’ manufacturing industry and the gambling industry scored higher (taxes on production and products sum to 45 per cent and 30 per cent of sales, respectively), because of the specific taxes and excises levied on these industries, while various manufacturing and mining industries scored lower (significantly below 5 per cent) because governments generally do not levy taxes on production and products in these industries and they are generally GST exempt (as most of their output is sold overseas).

Overall, the clear conclusion from Input-Output tables is housing ownership and dwelling construction is heavily taxed with direct taxes relative to other industries. This

<sup>2</sup> The data we quote here, and displayed in Table 2.2, are taxes less subsidies on production plus taxes less subsidies on products, divided by the value output at purchaser prices. Output at purchaser prices is a measure of what purchasers actually pay, including the effect of taxes: it is the sum of output at basic prices (what producers actually receive, after the effect of taxes) plus taxes less subsidies on production and products. We characterise ‘taxes less subsidies on products and production’ as ‘taxes on production and products’ because, at least in the case of ‘taxes less subsidies on products’, ‘subsidies’ equal zero in 106 of 115 industries, including for ownership of dwellings and residential construction. The ABS did not provide data on subsidies on production in response to our email enquiry.

means taxes create a significant wedge between the actual cost of suppliers for providing dwellings and construction, and the prices we pay to receive these services.

## 2.2 Relative tax burden of different industries in Input-Output Tables (top 8, industry-wide average and bottom 5)

Industry	Sales (measured at purchaser prices, which includes taxes)	Taxes on production and products
	\$ million	Share of sales
Wine, Spirits and Tobacco	32 668	45%
Gambling	12 176	30%
Beer Manufacturing	11 755	28%
Petroleum and Coal Product Manufacturing	71 829	19%
Food and Beverage Services	75 489	16%
Insurance and Superannuation Funds	54 373	14%
Ownership of dwellings and residential construction	288 787	13%
<b>Industry wide average</b>	-	<b>5%</b>
Basic Non-Ferrous Metal Manufacturing	17 529	1%
Fruit and Vegetable Product Manufacturing	19 582	1%
Defence	30 384	1%
Iron Ore Mining	1 957	0%
Coal mining	12 802	0%

*Note: Industries where sales are less than \$10 000 million are excluded. Margins and subsidies make our calculation problematic in some smaller industries. We treat ownership of dwellings and residential construction as one joint industry in our table and analysis, because the data and email correspondence from the ABS suggests whole taxes are separated into these industries. For example: residential construction includes stamp duties, while ownership of dwellings includes municipal rates, land taxes, etc. For our purposes, which requires a picture of all taxes on housing and property, the best approach is to add these two industries together. See footnote in text for further explanation of data.*

Source: ABS Input-Output Table Cat 5209 (2014-15)

### *Contribution to government revenues from economic growth*

Using the CIE-REGIONS model it is possible to investigate the sectoral contribution to government taxation revenue in Australia. Six consumer goods or services were selected:

- Ownership of dwellings, that is housing;
- Textile, clothing and footwear (TCF);
- Road passenger transport;
- Food, beverage and tobacco;
- Electricity; and
- Petrol products.

For each sector, a \$500 million increase in demand for each of the selected goods or service was simulated. In a general equilibrium framework, higher demand for one good or service creates complicated impacts on other sectors: it boosts those sectors which

provide inputs to the production of the good or service with simulated higher demand; but it will in general depress the demand for goods and services from other sectors.

In order to measure the impact of higher demand on government taxation revenue as accurately as possible (that is, to offset the substitution effect on other sectors, while still maintaining the general equilibrium property of higher demand on the supply side), two scenarios were simulated:

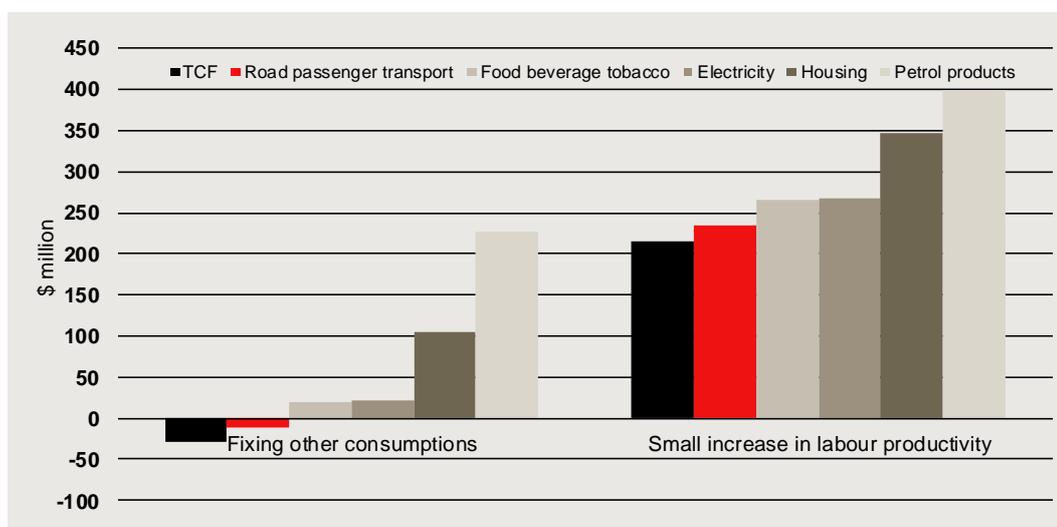
- household demand for other major goods and services remains fixed; and
- a small increase in labour supply (equivalent to a boost in immigration) which boosts the overall economy, thus offsetting the negative impact on other sectors.

The second scenario generates bigger impacts on taxation revenue than the first scenario because, with higher labour supply, the overall economy and total income level is boosted. By contrast, the income level under the first scenario remains unchanged. Therefore, we need to compare the impact on tax revenue of higher demand for various consumer goods under the same scenario, rather than comparing the impacts between the two scenarios.

Chart 5.7 reports the simulation results. It depicts the change in government taxation revenue of higher demand for one good or service. A \$500 million increase in the demand for housing would generate about \$105 million more in government taxation for the first scenario and about \$346 million more revenue for the second scenario.

For the same amount of increase in demand, only higher demand for petrol products could generate more taxation revenue than the housing sector does. All other sectors would generate less taxation revenue than the housing sector. It is clear from the chart that the relativities of the impacts of higher demand from different commodities persist across the scenarios.

### 2.3 Change in taxation revenue by higher consumption in one sector relative to impact of higher consumption in housing



Data source: CIE-REGIONS model simulation

### *3 Methodology for the bottom up analysis*

This chapter lays the groundwork for the bottom up analysis of housing costs by setting out the broad methodology by which the results are derived.

The Appendices (Appendix A for house & land packages, Appendix B for new infill apartments, Appendix C for income taxes) and Chapter 7 (for the price of raw land) provides detailed data sources, assumptions and explanations.

#### *Strategy*

We are trying to estimate and understand all the components in the total outlay a homebuyer makes to acquire a new home. We consider, separately, a new house & land package in a Greenfield estate, or a new apartment in an infill development. We consider 5 cities: Sydney, Melbourne, Brisbane, Perth and Adelaide. Our analysis is done for the financial year 2016-17, as there are considerable lags in the publishing of some data.

The creation and provision of a new house & land package in a Greenfield estate involves two processes: first, the developer buys raw land zoned for residential development, seeks and gains relevant approvals for subdivision, develops the land into blocks which are ready for the construction of a dwelling, and then sells this developed block to the homebuyer. Second, the homebuyer commissions a builder to construct a dwelling. After paying stamp duties and other transaction costs on the developed block of a land and new dwelling, the homebuyer owns a new house & land package.

We treat the creation and provision of a new apartment (in an infill development) as a single project undertaken by a developer. The developer buys raw land, seeks and gains relevant approvals, develops the land, commissions the construction of a construction building and incurs management costs for the whole project. The developer then sells a complete, new apartment to the homebuyer who owns this apartment after they have paid stamp duty and other transaction costs.

To calculate the stamp duty, we use applicable rates. We do not incorporate any discounts that are available to first homebuyers, to keep our results and analysis as simple as possible.

The transfer price paid by the homebuyer to the developer (and/or builder) is the sum of relevant costs, including a margin. The total outlay made by the homebuyer to acquire the new home is the transfer price (total costs), plus transaction costs.

We use a 3-step process to analyse the outlay made by the purchaser, as follows.

## *Description of each step*

### ***Step 1: calculate the total outlay made to acquire new housing (financial analysis)***

#### *New house & land packages*

For new house & land packages, there is no publicly available data on ‘average’ sale prices. Therefore, we make our own estimate, by doing the following:

- 1 We identify and understand the separate steps, including their components, that are undertaken in the development process to create and provide a new house & land package.
- 2 We source, compile and synthesise publicly available data that allows us to estimate the costs of each step and component in the creation of a new house & land package. We add insights from consultations with HIA and assumptions where necessary. All data sources, insights from consultations and assumptions are explained in Appendices A and B.
- 3 We estimate the representative transfer price for a new house & land package by summing together the estimated cost of each component. The total outlay made to purchase the package is the cost of a developed block of land plus the cost of the dwelling plus transaction costs.

$$\begin{aligned} & \textit{Total outlay required to acquire a new dwelling} \\ & = \textit{Cost of a block of developed land} + \textit{Construction cost} \\ & + \textit{transaction costs} \end{aligned}$$

Note, because our estimates are not derived from averaging multiple observations for these costs, we do not call our estimates the ‘average outlay’ made to acquire a new house & land package. However, to estimate each cost we use average data: median cost for a developed block, average size of new houses, average construction cost, including an adjustment for economies of scale in Greenfield blocks. Therefore, while our estimates are not a calculated averages in the strict sense, they do provide an estimate for the central outlay made to acquire a new house & land package. We call our estimates ‘representative’.

#### *New apartments*

UDIA publish data on the median transfer price of new apartments in each city. From this end-point we work backwards to measure the cost of each component. The total outlay is the transfer price plus transaction costs.

#### *This report*

The results of step 1 are contained in Chapters 4 and 5 of this report.

### ***Step 2: cross check our result for new house & land packages***

Because our estimate for the representative transfer price for new house & land packages is derived by summing separate estimates for individual components, it is necessary to cross-check our estimate for the total against data for advertised prices on real-estate websites. As advertised house & land packages are quite heterogenous in terms of their characteristics (block sizes, house sizes, etc.) we convert our estimates into rates: cost of developed land against block size, total construction costs against house size. We then multiply these rates against the average for block size and dwelling size from advertised packages and compare the result to average price across advertised packages.

As a result of our initial cross-checks, we adjust our original assumptions to ensure our estimates broadly align with advertised prices. This cross-check is outlined in Chapter 6 of this report.

This cross-check is not necessary for new apartments, because we use reported data on the median price of new apartments.

### ***Step 3: identify resource costs, statutory taxes and regulatory costs (economic analysis)***

For each component of each estimate of the outlay made to acquire a new house & land package and a new apartment, we identify whether the component is a resource cost, a statutory tax (or another government revenue raising measure such as an excessive charge) or a regulatory cost.

For many components this is straight-forward. For example, the land tax the developer pays during land development, the GST charged on various costs, and stamp duties are statutory taxes. Further, we assume that reported construction costs (plus our adjustment for economies of scale in Greenfield development) are resource costs.

Some components require simple allocations into two sub-components, as the following example illustrates. We calculate total development charges, which are one component of the cost of a developed block of land. We make an estimate for the resource costs that would be incurred to provide appropriate roads, public space, etc. for new development. If the development charge is above this resource cost, the excess is a government revenue raising measure, which we treat similar to a statutory tax.

One component, the purchase price of raw land zoned for residential use requires a complicated allocation into a resource cost and regulatory cost. This is discussed in Chapter 8.

Finally, it is necessary to remove income taxes levied on underlying resources, which are statutory taxes. For example, calculated 'construction costs' include the cost of the income tax levied on the workers engaged by the builder. We make a final calculation to separate out income taxes in resource costs, so these can be allocated to statutory taxes. This is described in Appendix C.

### *We capture cascading costs*

An important feature of the various components of the outlay required to buy a new home is their inter-dependency. For example, the land tax that is levied on developers during the development process is a statutory tax. This land tax is levied on the price the developer pays for the unimproved value of the block of raw land, which (we find) includes a component that is a regulatory cost. Therefore, the regulatory cost implicit in the raw land value causes the statutory tax to be larger. This is sometimes called the ‘cascading effect’ of government policy.

The model we have used for our analysis allows us to track and estimate these cascading effects. For some components, this requires us to use iteration, which is explained (see Chapter 8).

Within regulatory costs, we identify:

- 1 Regulatory costs on variable resources (which is the effect of delays in the approval process on developer finance costs, plus the effect of uncertainty in the approval process on developer margin)
- 2 Regulatory costs on the fixed resource land. We present evidence this is created by the system of zoning and associated land use and development controls.

Regulatory costs on variable resources are essentially inefficiencies in the planning system. Apart from directly adding to developer finance costs, these costs impact the GST collected on development and (via their impact on the final transfer price), the stamp duty paid by the purchaser. Because these effects on GST and stamp duty are relatively straightforward, and because governments periodically try to improve the processes where the underlying inefficiencies exist, we report the additional GST and stamp duty created within ‘regulatory costs on variable resources’, so the full impact of these costs can be understood.

Regulatory costs on land (the fixed resource) inflate the price the developer pays for raw land and therefore most statutory taxes that follow. It is calculated via iteration (see Chapter 8). Measuring all these cascading effects is more complicated. It is desirable to avoid this complication, because understanding this regulatory cost and the evidence that suggests it is created by the system of planning and associated land use and developed controls is also complicated. Therefore, we simply report this regulatory cost as a stand-alone item (regulatory cost on the fixed resource), and do not calculate its cascading effects on land tax, rates, GST, stamp duty, etc.

## 4 Assumptions about the development process

### *Process that results in the creation of a new house & land package*

The process that results in the creation and provision of a new house & land package, including key sub-components, is described in Table 3.1. Further explanation of some details is provided in Appendix A.

#### 4.1 The provision and creation of a new house & land package

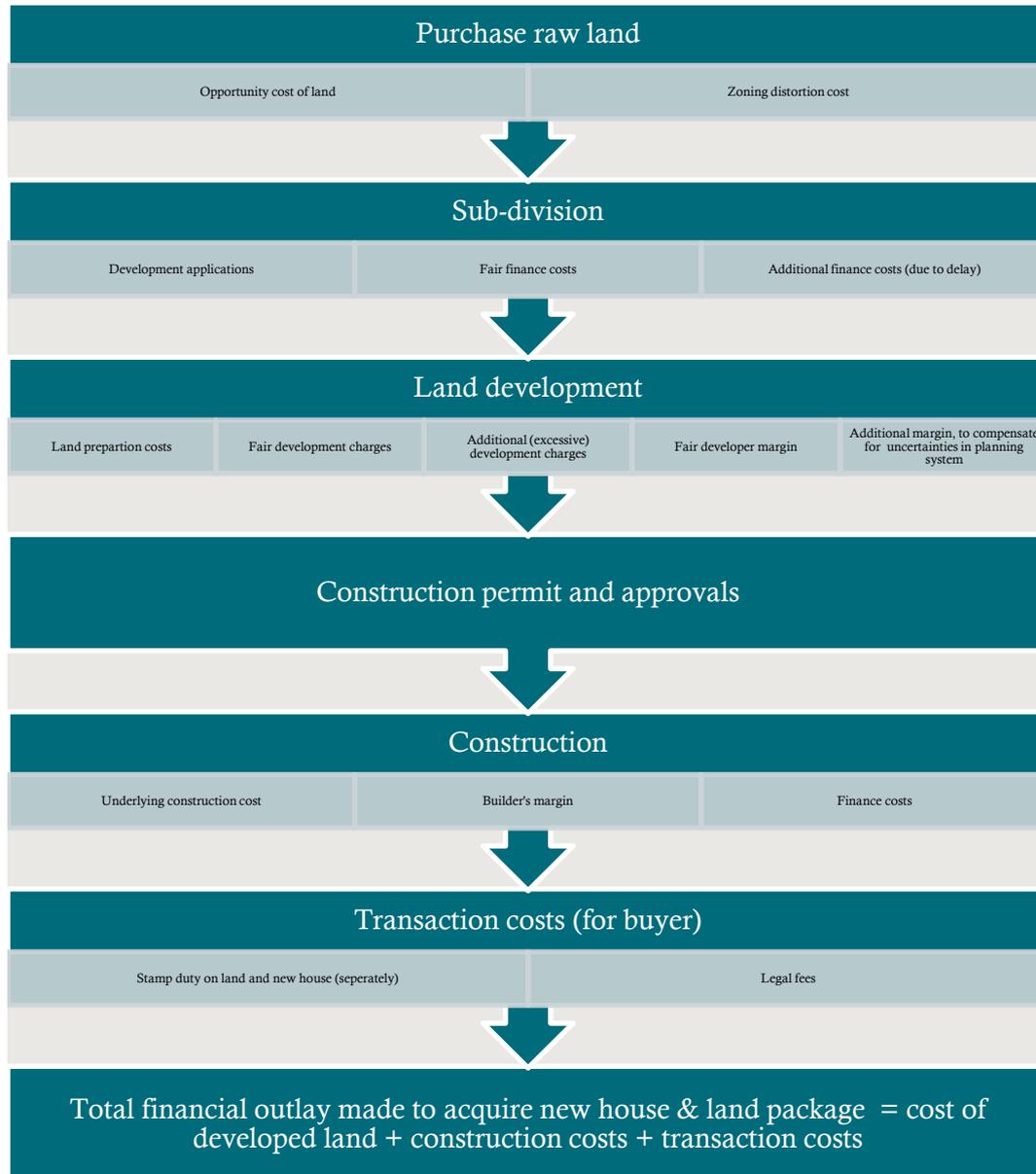
Step	Start	End	Time (Sydney Greenfield)
Raw land purchase	Developer uses debt to purchase a large parcel of raw land that is zoned for residential use on the city fringe	-	-
Development application and sub-division	Developer makes a DA that includes subdivision, masterplan, etc. While developer waits for DA to be granted, he/she incurs interest on land purchase costs	Local council grants relevant development applications Land now consists of individual blocks ready for development	15 months (necessary time of 8 months, plus delay of 7 months) <sup>a</sup>
Land development	Developer pays development charges to local council and state government (covers roads, public space, etc.) Developer incurs land preparation costs and other development costs	Individual blocks are ready for the construction of a dwelling Buyer of new house & land purchases a block	4 months (necessary time)
Development application and building application	Buyer of new house & land package applies for development application and building application	Relevant authorities issue approvals	
Construction	Buyer of new house & land package commissions builder to construct dwelling	Construction is complete	8 months (necessary time)
Transaction costs	Buyer of new house & land package pays stamp duty on developed block and new dwelling	Buyer of new house & land package takes ownership of completed project	Costs occur as they arise

<sup>a</sup> See discussion in this chapter of 'necessary time' and 'delay'

Source: Consultations with HIA, The CIE

*Process that results in the creation of a new apartment*

**4.2 The development process and its components**



Data source: The CIE

In the process that results in the creation of a new apartment we do not assume a distinction between land development and construction. Rather we assume the developer purchases the raw land, seeks and obtains approval, develops the land and constructs the apartment block as a single project. At the end of this project, the buyer of the new apartment purchases a complete apartment. The result is an extra layer of costs: project management costs, which are incurred by the developer, and are added to the outlay made by the purchaser. The buyer of the new apartment pays stamp duty once, on the total price of the new apartment.

## *Assumptions for timing*

It is necessary to make assumptions about the time taken in each step of the development process as these time periods drive the interest costs of the developer and builder (who use debt to finance costs), which are components that add to the total outlay made by the buyer of new house & land package and new apartment.

Within our calculations, the most important timing assumption we make is for the period of time for the granting of a development approval (the period of time between (1) the developer buying the raw land zoned for residential use and the submission of a development approval, and (2) the granting of this approval, which allows the developer to develop the land).

Public policy discussion implies that delays in the planning and approvals process can increase this period of time. Two examples of this discussion are as follows.

- 1 Garner, for the Planning Institute of Australia, notes: '*Not only do unnecessary delays in the development assessment process result in sometimes substantial delays in bringing land and housing to the market, but particularly in areas of high growth it can lead to higher development costs.*'<sup>3</sup>
- 2 The Productivity Commissions notes there are 'delays' in the process of land supply caused by: rezoning/planning scheme amendment, structure planning and dealing with community concerns.<sup>4</sup>

Of course, the vast majority of community members reasonably expect that new development is subject to some kind of administrative process, where developers are required to convince the relevant authorities that their particular development has merit and aligns with reasonable community expectations. This process (where developers have to seek and receive and approval for their development) requires some non-zero period of time. Therefore, for this project, we split the period of time for the granting of a development approval into two parts:

- 1 An initial period of time that the relevant authority requires to subject the development application to a level of scrutiny that is necessary, and which is consistent with reasonable community expectations. In Table 4.3 (below), we call this the 'necessary' component of the time taken for the development approval. Because this time period is necessary, the interest cost that accrues to the developer during this period is a resource cost.
- 2 An additional period of time that the relevant authority takes to grant the development approval, which is unnecessary, and which is additional to the period of time that is required to meet reasonable community expectations. We call this component of the time taken for the development approval an 'unreasonable delay'. Because this time period is not a necessary part of the development process, and because it created by government policies and decisions (in this case the 'decision' is

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<sup>3</sup> Garner G O 2008, *The Impact of Planning Delays & Other Holding Costs on Housing Affordability*, Refereed submission to PIA QLD State conference, pg. 15 (see: <https://www.planning.org.au/documents/item/1199>, accessed April 2019)

<sup>4</sup> Productivity Commission 2011, *Planning Zoning and Assessments*, pg. XXX

to unreasonably delay the development approval) the interest cost that accrues during this period is a regulatory cost.

There is no widely accepted data on the time period it takes to approve largescale Greenfield and infill development, nor on the component of this that reflects an unreasonable delay. Therefore, it is necessary for us to make a judgement. For this judgement, we undertook consultations, and arrived at the data in Table 4.3. Note, given the goal of this project is to pull together all available data and estimates on different parts of the development process, and present them in a coherent framework, the goal for individual timing assumptions is not to make a 'perfect' assumption. Rather, it is merely to make a plausible or reasonable assumption that is not inconsistent with the available public policy discussion.

#### 4.3 Greenfield development: time taken for each step (months)

		Sydney	Melbourne	Brisbane	Perth	Adelaide
Time taken for development approval for subdivision	Necessary	8	8	8	8	8
	Unreasonable Delay	7	4	4	4	4
Land development process	Necessary	4	4	4	4	4
House construction	Necessary	8	8	8	8	8
<b>Total time</b>		<b>27</b>	<b>24</b>	<b>24</b>	<b>24</b>	<b>24</b>

Source: CIE consultations

#### 4.4 Infill development: time taken for each step (months)

		Sydney	Melbourne	Brisbane	Perth	Adelaide
Time taken for development approval for building	Necessary	7	7	7	7	7
	Unreasonable Delay	9	5	5	5	5
Land development	Necessary	4	4	4	4	4
Apartment construction	Necessary	18	18	18	18	18
<b>Total time</b>		<b>38</b>	<b>34</b>	<b>34</b>	<b>34</b>	<b>34</b>

Source: CIE consultations

More details are provided Appendices A and B.

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