Modelling Reform Packages for Property, Corporate and Household Taxes

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Abstract

This paper models reform packages for Australian property, corporate and household taxes to increase consumer welfare by shifting towards more efficient taxes. The design of each package is guided by recently-updated estimates for the efficiency of each tax. Each package is budget neutral and is modelled using the CGETAX model. The three packages generate large permanent gains. Annual consumer welfare is up by $43 billion and real GDP by nearly 6 per cent. Achieving those large benefits requires collecting $91 billion in tax revenue in a different way that is less harmful for consumer welfare.

Inefficient state conveyancing duty and land tax are abolished, with the revenue replaced by a broad-based land tax like municipal rates. The company tax system is modified so that normal returns to capital are taxed less and economic rents and dividends are taxed more. To broaden tax bases, GST-free categories become taxable and the payroll tax threshold is cut by 75 per cent, funding a large cut in personal income tax.

Regarding equity, it is likely that the property and corporate tax packages reduce inequality while the household tax package increases it. The net effect will be analysed in upcoming work and adjustments made to the combined package to maintain equity.

JEL Codes: C68, H21, H24, H25.

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1   Introduction

The general aim of tax policy is to generate the revenue required to fund government spending in a way that is efficient, equitable and simple. This paper develops separate reform packages for Australian property, corporate and household taxes to better achieve those objectives. The design of each package is guided by recently-updated estimates of the efficiency of each Australian tax. Each package is designed to be budget neutral.

The packages are modelled using the CGETAX model, which is a long run equilibrium model designed to assess the efficiency of the tax system. The modelling shows that the three packages generate large permanent gains. Annual consumer welfare is up by $43 billion and real GDP by nearly 6 per cent. Achieving those large benefits requires a willingness to collect $91 billion in tax revenue in a different way that is less harmful for consumer welfare.

This paper is organized as follows. Section 2 explains the modelling approach. Section 3 presents updated estimates of the excess burdens of the major taxes to help guide the design of the tax reform packages. The reform packages for property taxes, corporate tax and household taxes are presented and modelled separately in sections 4, 5 and 6 respectively. The three packages are combined together in section 7 to determine whether their benefits are broadly additive. In our final comments in section 8, we discuss how these tax reforms intersect with competition policy and land supply policy. We also flag areas for further work including modelling a reform package for taxes on asset incomes and the development of a new model with dynamics and heterogeneous consumers.

2   Modelling Approach

Models like CGETAX start with the idea that a representative consumer makes choices in up to four different areas to maximise their overall welfare. Those areas of consumer choice are: (i) the composition of their consumption; (ii) leisure versus work/consumption; (iii) present consumption versus saving for future consumption; and (iv) portfolio allocation.

Taxes can distort these consumer choices, as well as business choices, thereby reducing consumer welfare. By definition, the larger is this reduction in consumer welfare, the more inefficient is the tax system.

In economic models that focus on vertical equity in addition to efficiency, the representative consumer is replaced with heterogenous consumers, who typically differ in their incomes. In that way, we can assess how alternative tax policies affect the welfare not just of a representative consumer but of different types of consumers. A new model is being developed, the dynamic CGETAX model, which contains heterogeneous consumers and hence will be able to analyse both the efficiency and equity effects of alternative tax policies. However, in this paper we make some general observations on the likely effects of each of the three packages on equity.

It is also important that the tax system is simple to keep administration and compliance costs low. However, economic models are generally not the best tool for analysing that, but again we make some general observations about the effects of the packages on simplicity.

Taxes can also promote economic welfare by correcting for negative externalities that are otherwise not factored into consumer and business choices. For example, CGETAX allows for negative externalities that help justify taxes on alcohol, tobacco, gambling and fuel use.

Table 1 compares the general characteristics of CGETAX with those of other models that have been used for tax policy work. Like the more general research on tax policy, most of these models focus on how tax policy influences consumer welfare. Murphy (2025a) recently used CGETAX to model the effects of alternative corporate tax policies in the first phase of work for the Productivity Commission (PC). The New Dynamic CGETAX model will be used in the second phase of that work to model dynamic adjustment and equity (Table 1).

TABLE 1 General Characteristics of Models

	number of industries	measure of economic gains/losses	dynamics	vertical equity
KPMG Econtech (2010) Henry Review	109	welfare	no	no
Murphy (2016, 2018) CGETAX	278	welfare	no	no
Dixon & Nassios (2018)	76	income	yes	no
McKeehan & Zodrow (2017)	2	welfare	no	no
Tran & Wende (2021)	1	welfare	yes	yes
Murphy (2025a), CGETAX2025	278	welfare	no	no
dynamic CGETAX, 2nd phase PC	8	welfare	yes	yes

3   Excess Burdens

The economic inefficiency of a tax is summarised by its excess burden. This is the cost to consumers over and above the amount of tax that is paid, expressed relative to the revenue that is raised. This excess burden arises from the economic harm caused by tax-induced distortions to economic choices.

Detailed model-based estimates of the excess burdens of the major Australia taxes were reported in the Henry Review (Australian Government, 2009) and were influential in that Review's recommendations. The modelling was undertaken by a team at KPMG Econtech (2010) that was led by the author of this paper. The team worked closely with the Australian Treasury. Our estimates of MEBs continue to be widely cited, including by the Parliamentary Budget Office (2024).

Since the Henry Review, the Australian economy has changed and there have been improvements in the way excess burdens are modelled in Australia. Table 2 shows how the estimates of marginal excess burdens (MEBs) for four key taxes have evolved in selected studies.

TABLE 2 Marginal Excess Burdens from Selected Australian Studies

	Municipal rates	GST	Personal Income Tax	Company Income Tax
KPMG Econtech (2010) Henry Review	2%	8%	24%	40%
Murphy (2018) CGETAX	0%	24%	42%	132%
Tran & Wende (2021)	n/a	23%	43%	69%
Murphy (2025a), CGETAX2025	-4%	30%	48%	80%

In the Henry Review, KPMG Econtech (2010) found that the most efficient tax is a broad-based tax on land, followed by the GST, followed by personal income tax, followed by company income tax. The three subsequent studies shown in Table 2 agree with that ranking. In simple terms, the ranking reflects the assumption that land is in fixed supply, while the GST discourages labour supply, personal income tax also discourages saving and company tax discourages both investment and labour supply (Gordon, 1986).

While the rankings are the same, the estimates of MEBs for the GST, personal income tax and company tax are higher in Murphy (2018) than in the Henry Review. This is because Murphy (2018) uses the CGETAX model, which improves on the earlier modelling in three main ways. CGETAX makes a correction to the way the sensitivity of the labour supply to real wages was estimated[1], and recognises the existence both of oligopolies in some industries and of international profit shifting.

Murphy (2025a) uses CGETAX2025, which takes account of the latest data. This further raises the estimates for the MEBs for GST and personal income tax, because the tax burden on labour is rising as bracket creep is being used to gradually balance the budget. It lowers the MEB for company income tax because recent studies lead us to lower our estimate of the share of the company tax base lost to international profit shifting from 15 to 10 per cent (Murphy, 2025b).

Interestingly, the MEBs obtained by Tran and Wende (2021) are similar to the MEBs from CGETAX (Table 2). This is despite some substantial differences in the modelling approaches (Table 1).

While Table 2 shows the latest MEBs from CGETAX for four major taxes, Table 3 provides much greater tax detail. See Murphy (2016) for an explanation of MEBs at this finer level of tax detail using an earlier version of CGETAX.

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[1] KPMG Econtech (2010) assumed that the *compensated* elasticity of the labour supply with respect to the after-tax real wage was 0.2 based on the survey of labour market economists analysed by Fuchs, Krueger and Poterba (1998). However, KPMG Econtech (2010) mistakenly used the survey estimate for the *uncompensated* elasticity instead of the survey estimate for the *compensated* elasticity, which on the same basis was 0.35. Murphy (2018, 2025a) uses 0.4 for the compensated elasticity. Some recent studies obtain higher estimates for the compensated elasticity, including 0.44 in Erosa, Fuster and Kambourov (2016) and 0.5 to 1.0 in Keane and Rogerson (2015).

TABLE 3 Marginal and Average Excess Burdens from CGETAX2025

Major Taxes

	MEB	AEB
Personal		34%
top marginal rate	76%	
tax surcharge	48%	
medicare levy	36%	
income levy	34%	
bracket creep	32%	
Franking Credit system: full to 2/3 franking	27%	
Corporate Tax rate	80%	24%
27.5% to 30%	71%	
25% to 27.5%	58%	
22.5% to 25%	48%	
20% to 22.5%	39%	
17.5% to 20%	32%	
15% to 17.5%	25%	
Corporate Tax base		
ACE to current base	70%	
ACC/CFT to current base	85%	
full expensing to current base	64%	
GST		26%
raise rate	30%	
broaden base to cover items that are now GST-free	13%	
remove financial services concession	1%	

Other Taxes

	MEB	AEB
Payroll Tax		34%
raise rate	42%	
threshold reduced by three-quarters	24%	
Property taxes:		
municipal rates	-4%	-4%
land tax	92%	59%
conveyancing duty: residential	74%	60%
conveyancing duty: commercial	225%	155%
Insurance taxes	69%	48%
Mining taxes:		
royalties	57%	30%
PRRT	-8%	-8%
Financial service taxes:		
major bank levy		100%
rent tax (hypothetical)		-8%
Wholesale & retail trade taxes:		
levy (hypothetical)		25%
rent tax (hypothetical)		-8%

It is not suggested that these latest estimates of MEBs in Table 3 are perfect. Indeed, as mentioned above, work is now being undertaken on a new Dynamic CGETAX model that will be able to improve on these estimates by allowing for dynamics, equity and other issues.

We can make the tax system more efficient by relying less on taxes with higher marginal excess burdens (MEBs) and more on taxes with lower MEBs. In that way, the tax system does less economic harm and consumer welfare is increased. Table 3 informs much of the design of the three tax packages that we now present in turn, and so we will be referring to Table 3 regularly.

4   Property Taxes Package

Property Tax Issues

The economic harm from the existing system of property taxes has been well understood since the Henry Review (Australian Government, 2009). The main property taxes are conveyancing duty, state land tax and municipal rates.

Conveyancing duty is calculated as a percentage of the value of the structure with land. However, duty is only applied when ownership changes hands, so the effect of the duty is to add to ownership transfer costs. Conveyancing duty dominates ownership transfer costs, the other components being fees for estate agent, legal and government services.

The narrowness of this tax base makes the effective tax rate high, acting as a strong disincentive to changes of ownership. This artificially low frequency of changes in ownership adds to mismatch between the attributes of structures (such as size and location) and the requirements of owners. In the case of housing, conveyancing duty discourages households from moving when their circumstances change, resulting in poorer utilisation of the housing stock.

Figure 2 shows how this tax distortion from conveyancing duty is represented in the CGETAX model. Transfer duty raises the price of ownership transfers, leading to an artificially low volume of transfers

in turn lowering the useful output of structure services. While this occurs for both residential and non-residential buildings, about 70 per cent of transfer duty is collected from the residential sector.

CGETAX takes the total supply of both residential and commercial land as given. This means that a tax on either type of land is potentially efficient, because it will not change total supply. Figure 2 shows how land is somewhat substitutable with structures in the generation of structure services in the model. This captures the idea that, for sites of a given area, the building footprint and height can vary from one site to the next.

State land tax introduces inefficiencies by discriminating in favour of some land uses. Owner-occupied housing is exempt from the state tax on residential land. This distorts residential land allocation, favouring owner-occupied housing over rented housing. Figure 3 shows how CGETAX models substitution by households between owner-occupied housing services and rented housing services.

Agricultural land is exempt from the state tax on industry land. This distorts industry land allocation, favouring agriculture over other industries.

Municipal rates are broader based than state land tax. For example, they cover both owner-occupied housing and agricultural land. While there is some unevenness in tax rates, municipal rates are by far the most efficient of the major property taxes.

Property Tax Reform Package

The modelling shows that municipal rates are highly efficient, with a low average excess burden (AEB) of -4 per cent. This compares to the high AEBs of 59 per cent for state land tax and 60 per cent and 155 per cent for residential and commercial conveyancing duty respectively (Table 3).

Thus, our property taxes reform package abolishes conveyancing duty and state land tax. It makes up the revenue shortfall with higher municipal rates, with the additional rate revenue collected by or on behalf of the state government to make up for its loss of revenue from the state tax abolitions. This budget neutrality can be seen in Table 5 in the column for property taxes.

Property Tax Package Effects

The property tax row of Table 4 shows the effects in the long run of this property tax reform package. The gain in consumer welfare of $27 billion on an annual basis is large. It represents over one-half of the package size of $47 billion as measured by the additional revenue raised in municipal rates (Table 5). This reflects the net welfare gain from switching from the highly inefficient taxes of conveyancing duty and land tax to the highly efficient municipal rates.

Table 4 Economic Effects of Tax Reform Packages (deviations from baseline)

Scenario	Business Capital	Housing Capital	Ownership transfer	GDP	Annual Welfare	Annual Package Size
	% deviation	% deviation	% deviation	% deviation	$bn, 2025-26	$bn, 2025-26
Property Tax	3.3%	4.7%	67.9%	3.2%	27	47
Corporate Tax	6.1%	1.0%	2.3%	1.5%	7	9
Household Tax	0.9%	1.9%	1.5%	0.8%	10	42
All three	10.9%	7.7%	74.3%	5.8%	43	91

Table 5 Budget Effects of Tax Reform Packages (deviations from baseline, annual)

	Property Taxes	Corporate Taxes	Household Taxes	All 3 packages
Conveyancing duty	-38	0	1	-38
State land tax	-18	0	1	-18
Municipal rates	47	0	1	51
Company tax	-1	-17	3	-15
Personal & Super Income Tax	5	9	-43	-29
GST	-2	0	29	26
Payroll tax	0	0	13	14
Other budget items	6	8	-5	8
Total budget effect	0	0	0	0

The higher turnover of property caused by abolishing conveyancing duty is captured in ownership transfer capital, which is up 68 per cent (Table 4). The long-term gain in real GDP is 3.2 per cent.

Because the reform package removes the land tax bias against rented properties, production of housing services is up 21% for rented properties against 4% for owner-occupied properties. That is, renters

benefit considerably from the removal of land tax, which is unsurprising because it is a tax that discriminates against them.

Given that the average renter has a lower income than the average owner-occupier, it seems likely that the property tax reform package reduces inequality. However, the new Dynamic CGE model will provide more clarity on the effects of this package on vertical equity.

The property taxes package also simplifies the tax system by abolishing two existing taxes.

5 Corporate Taxes Package

Corporate Tax Issues

The corporate tax base includes two main components, which are normal returns to capital and location-specific economic rents. The economic effects of taxing these two components are very different.

Taxing normal returns to capital in a small open economy such as Australia does considerable economic harm. This is because it has a double disincentive effect, as first demonstrated by Gordon (1986). First, it discourages investment, leading to lower capital stock. Second, this lower capital intensity leads to lower productivity and hence lower real wages, which in turn discourages labour supply. Lower capital and labour inputs both lower production, making a tax on normal returns to capital highly inefficient.

The economics of taxing location-specific economic rents are very different. Such rents are generated by natural resources, such as land and minerals, and by oligopoly power. By definition, rents are payments over and above what is needed to keep a factor of production in its current use. Thus, in principle, a tax on such rents is fully efficient because it does not reduce the supply of the factor of production that is being taxed.

Table 6 shows the relative importance of normal returns to capital and economic rents in the company tax base. The estimates refer to the model's baseline scenario, which is designed to refer to a representative year.

TABLE 6 Baseline company income tax revenue by base

	simulated 2025-26 base	
	$bn	%
normal returns to capital	59	46%
oligopoly rents: financial services	25	20%
oligopoly rents: other industries	13	11%
mineral rents	17	13%
land rents	13	10%
total	128	100%

Table 6 highlights a dilemma for corporate tax policy. It is highly inefficient to tax about one-half of the tax base, normal returns to capital, whereas it is highly efficient to tax the other half, location-specific economic rents. We can estimate separate EBs for these two components of the tax base.

To provide a guide to the EB for taxing economic rents, we consider hypothetical taxes on the economic rents earned in banking, mining and wholesale & retail trade. Interestingly, rather than having a zero EB consistent with them being fully efficient taxes, they have negative EBs of -8 per cent (Table 3), implying that they are super-efficient. This super efficiency occurs because part of the incidence of these taxes falls on foreign shareholders rather than Australian residents.

To provide a guide to the EB from taxing normal returns to capital, we consider the effects from moving from a hypothetical broad tax on economic rents, a cash flow tax (CFT), to the existing company tax. This extension of the tax base to normal returns to capital has a high MEB of 85 per cent (Table 3) and so is highly inefficient.

The rent tax that we consider is a cash flow tax (CFT) on a real base, which was originally known as a Brown tax. Its key features compared to the traditional corporate tax are that it provides immediate (i.e. full) expensing of investment but there is no interest deduction. Full expensing of investment ensures that the value of the tax deduction for an investment matches the cost of that investment. That contrasts with tax deductions based on gradual depreciation under the existing corporate tax. Those deductions have a lower present value than the original cost of the investment because of the time value of money.

The reason that there is no deduction for interest expenses under a Brown tax is that the full cost of an investment is already fully deductible under immediate expensing. This is the case irrespective of whether the investment is financed by equity or debt. Hence, an interest deduction on top of full expensing would amount to a subsidy on debt-funded investment. Further, an interest deduction can also lessen the tax paid on economic rents.

Against that background, our corporate tax package modifies the design of company tax so that the effective tax rate is reduced by one-third on normal returns to capital but is left unchanged on economic rents. Before going into the details of the package, we provide some more information on how corporate tax is modelled in CGETAX.

One important issue is the extent to which taxing normal returns to capital reduces investment. That depends on the international mobility of capital and the substitutability between capital and labour. Table 7 shows that the CGETAX assumptions in those areas are similar to those made in most other models.

TABLE 7 Capital and Rents

	perfect international capital mobility	elasticity of substitution between capital and labour	fixed factor rents	oligopoly rents
KPMG Econtech (2010) Henry Review	yes	0.75	yes	no
Murphy (2016, 2018) CGETAX	yes	0.8	yes	yes
Dixon & Nassios (2018)	no	0.4	yes	no
McKeehan & Zodrow (2017)	yes	1	yes	no
Tran & Wende (2021)	yes	1	yes	no
Murphy (2025a), CGETAX2025	yes	0.8	yes	yes
dynamic CGETAX, 2nd phase PC	yes	0.8	yes	yes

International profit shifting is another significant issue in modelling corporate tax policy. It is allowed for in CGETAX and McKeehan and Zodrow (2017), as seen in Table 8. Using recent studies, we estimate that 10 per cent of the potential Australian corporate tax base is lost to profit shifting. See Murphy (2025b) for full details of how corporate tax policy is modelled in CGETAX, including how we arrive at that estimate of 10 per cent.

TABLE 8 Other Corporate Tax Issues

	share of corporate tax base lost to profit shifting	elasticity of intertemporal substitution	benefits and costs of dual rate system	bias against incorporation from corporate tax
KPMG Econtech (2010) Henry Review	nil	nil	no	no
Murphy (2016, 2018) CGETAX	0.15	0.25	no	no
Dixon & Nassios (2018)	nil	n/a	no	no
McKeehan & Zodrow (2017)	0.13	nil	no	no
Tran & Wende (2021)	nil	0.4	no	no
Murphy (2025a), CGETAX2025	0.1	0.25	no	no
dynamic CGETAX, 2nd phase PC	0.1	0.25	yes	yes

Where CGETAX differs from other models is in relaxing the assumption of perfect competition by allowing for oligopoly rents in 29 out of its 278 industries (Table 7). Recognising the existence of oligopolies is important in modelling the effects of some taxes as we shall see below in the case of the major bank levy. Some further effects of corporate tax will be introduced in the new Dynamic CGETAX model (Table 8).

Corporate Tax Reform Package

To improve the efficiency of the corporate tax system, we shift one-third of the way from the existing traditional corporate tax to a rent tax. In the modelling, we design the one-third rent tax component to operate like a CFT. Specifically, we modify the existing tax base so that 1/3 of investment is expensed immediately and 2/3 of *net* interest expenses are deductible.

Alternatively, the rent tax component could be based on an Allowance for Corporate Equity (ACE). This involves introducing an ACE with an allowance rate set at one-third of the rate appropriate for a full rent tax.

Choosing the best form of rent tax involves implementation issues that are outside of the scope of this modelling paper. For Australia, see Garnaut et al. (2020) for arguments in favour of a CFT-based rent tax and Sobeck, Breunig and Evans (2022) for arguments in favour of an ACE-based rent tax. Our modelling results depend much more on the fact that we have shifted one-third of the way towards rent taxation than on the particular form of rent tax that we have modelled.

For some companies, notably the banks, interest is not a source of net expense but rather is a source of net income. For such companies, their net interest income would be fully taxable. This asymmetry in the tax treatment of net interest income and net interest expenses is introduced to ensure that the profits from financial intermediation continue to be fully taxed under a CFT. There are also other options for achieving that, as discussed in Murphy (2017).

A shift to this 1/3-2/3 hybrid system entails a cost to the government budget. To fully cover that cost, the package modifies the franking credit system so that in future franking credits are issued at the reduced rate of $2 out of $3 in corporate tax paid. The package is then fully funded (Table 5, corporate tax column).

This dilution of franking credits recognises in a modest way the finding that the franking credits system lacks logic if the marginal investor is foreign because foreign investors cannot utilize franking credits (Boadway and Bruce, 1992). Raising additional revenue in this way involves an acceptable EB of 27 per cent (Table 3) and there are reasons to believe that CGETAX overstates that EB[2].

This corporate tax policy is similar in spirit to that proposed by the Productivity Commission (2025). In both cases there is a shift away from taxing normal returns to capital and towards taxing economic rents. Here, the shift is about twice as large, leading to larger effects, and some details differ.

Corporate Tax Package Effects

The corporate tax row of Table 4 shows the effects in the long run of this package. The gain in consumer welfare of $7 billion (Table 4) on an annual basis is large, being close to the package size of $9 billion, as measured by the additional revenue raised by diluting franking credits (Table 5). This mainly reflects the net welfare gain from partially switching from the highly inefficient taxation of normal returns to capital and towards both the highly efficient taxation of economic rents and the moderately efficient

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[2] Diluting franking credits has two efficiency benefits not taken into account in the modelling. First, it reduces the taxed-induced home country bias in portfolios caused by franking credits. Second, it reduces the disparity between the tax treatment for dividends and that for income from some other assets.

dilution of franking credits. Rents are taxed more, although in an indirect way through the reduction in deductibility for interest expenses.

Other measures of economic gain from the corporate tax reform package are also positive. Business capital is up 6.1 per cent due to the full expensing of 1/3 of investment, the biggest gain in business capital of the three packages (Table 4). This combines with a modest gain in employment to lead to a permanent gain in GDP of 1.5 per cent.

The corporate tax package has some effects on the distribution of income. It reduces tax on normal returns to capital which, in a small open economy, is expected to lead to higher real wages. Specifically, the after-tax real wage is up by 1.4 per cent. At the same time, the package reduces the value of franking credits.

This shift in the distribution of income from shareholders to workers is likely to reduce inequality in the distribution of income. However, the new Dynamic CGE model will provide more clarity on the effects of this package on vertical equity. The dynamic nature of the model will also help in proposing timing for phasing in the package.

6   Household Taxes Package

Household Tax Issues

The GST, payroll tax and personal income tax are all principally taxes on labour income. Over the last decade, the tax burden on labour has risen with bracket creep, contributing to an increase in the EBs of all three taxes. These increases can be seen in Murphy (2025a) by comparing his Table 6 with his Table 5.

Under the GST, some categories of consumption are GST-free. This distorts the pattern of household consumption away from taxable categories and towards GST-free categories. GST-free categories include home consumption of fresh food, water, child care, private education and private health.

CGETAX captures these substitution possibilities between consumption items using a 2-tier approach. In the top tier, there is an elasticity of substitution of 0.6 between 19 broad categories of consumption. Within most broad categories, including those that include items that are GST-free, the elasticity of substitution between items is 1.2. This higher value captures the idea that items that are grouped into the same broad category tend to be more substitutable e.g. fresh food versus processed food.

There are also categories of consumption that are exempt under the GST, meaning that they are input taxed rather than output taxed. The exempt categories are banking services and housing services. These categories are exempt because of challenges in making them taxable but see Murphy (2017) on possible ways of making banking services taxable.

The better way of raising more revenue from the GST is to make it a more efficient tax by broadening its base rather than by raising its tax rate. Raising additional revenue by bringing the GST-free categories inside the base has an EB of 13 per cent. The resulting GST is similar in design to the broad-based GSTs in New Zealand and Singapore. This compares to an EB of 30 per cent from raising additional revenue by raising the tax rate above 10 per cent (Table 3).

Eliminating the GST-free categories also simplifies the GST. This is especially true for businesses that currently sell a mix of taxable and GST-free items, such as grocery stores and pharmacies.

Businesses with smaller payrolls are exempt from state payroll tax. The level of this exemption varies from state-to-state but, as a national average, the first $1.2 million of a payroll is exempt. This artificially favours smaller firms over larger firms causing inefficiencies in production. It may be impractical to reduce this threshold to zero, but it seems likely that it could be reduced to, say, $300,000 while keeping administrative and compliance costs to manageable levels.

CGETAX captures the substitution possibilities under the payroll tax exemption in a simple way by distinguishing between taxed and untaxed labour in each industry. The assumed elasticity of substitution between these two types of labour is 3.

Similar to the GST, the more efficient way of raising more revenue from payroll tax is to make it a more efficient tax by broadening its base rather than by raising the tax rate. Raising additional revenue by reducing the threshold from $1.2 million to $0.3 million has an EB of 24 per cent. That compares to an EB of 42 per cent from raising additional revenue by raising the tax rate from a national average rate of 5.7 per cent (Table 3).

Personal income tax has a progressive rate scale. This makes it more inefficient but also more redistributive. The inefficiency effect of progressivity is seen when we compare raising additional personal income tax revenue through a tax surcharge, which has an MEB of 48 per cent, versus through an income levy, which has an MEB of 34 per cent (Table 3).

Personal income tax, alongside superannuation earnings tax, also taxes asset incomes. We return to the issue of the taxation of asset income in the final section.

Household Tax reform package

Similar to the previous packages, the household tax reform package improves the efficiency of the tax system through a shift away from taxes with higher MEBs and towards taxes with lower MEBs. In the base broadening part of the package, we change GST-free categories to taxable and we reduce the payroll tax threshold from $1.2 million to $0.3 million. This raises enough revenue to fund an across-the-board cut in personal income tax of 11 per cent.

Without further policy measures, this personal income tax cut will be gradually eroded by bracket creep. Bracket creep is regressive and the associated increase in average tax rates adds to the inefficiency costs of the tax system. To completely avoid this, the personal income tax brackets would need to be indexed to wage inflation. Alternatively, the effects of bracket creep can be diminished by indexing the tax brackets to price inflation.

Household Tax Package Effects

The household tax row of Table 4 shows the effects in the long run of this household tax reform package. There is a large gain in welfare of $10 billion (Table 4) on an annual basis, which comes mainly from

making the tax system more efficient by broadening the bases for the GST and payroll tax. This is larger than the welfare gain for the corporate tax package of $7 billion. Equally, this is based on a larger package size of $42 billion, being the additional revenue raised from GST and payroll tax (Table 5) to fund the personal income tax cut.

While the household tax package produces a larger gain than the corporate tax package if we measure the gain using consumer welfare, the opposite is true if we measure the gain using GDP. This is because GDP reflects only some sources of gain. Both welfare and GDP reflect the income gain from removing the payroll tax bias against larger businesses. However, only welfare reflects the gains to consumers from removing the existing bias to their consumption patterns that is caused by making some consumption categories taxable and other categories GST-free.

Different parts of the household tax package are likely to have different effects on equity. Broadening the GST tax base to include private education and private health costs reduces inequality. On the other hand, broadening it to include home consumption of fresh food increases inequality. Further, the across-the-board cut of 11 per cent to personal income tax also increases inequality.

The household tax package involves shifting the tax mix away from income and towards consumption. It is sometimes claimed that to do this is quite regressive and requires considerable compensation. However, that claim is based on cross-sectional data showing that the propensity to consume falls as current income rises. However, from a lifetime perspective, we know that most households eventually consume most of their income. That implies that changing the tax mix between income and consumption has little effect on inequality on a lifetime basis. Indeed, in Thomas (2020), 'the VAT is found to be either roughly proportional or slightly progressive in most of the 27 OECD countries examined'.

In any case, the new Dynamic CGE model will provide more clarity on the effects of the household tax package on inequality.

7 Combining the Packages

We now model a larger package constructed by combining the three packages together. There are two related reasons for doing this. One reason is to determine whether the benefits from the three packages are broadly additive. The second reason is to understand the size of the gains from pursuing relatively comprehensive tax reform.

The gains from the larger package approximately match the result from adding the gains from the individual packages together (Table 4). For example, the annual welfare gain adds to $44 billion across the three packages and is only slightly less at $43 billion for the combined package.

The welfare gains are approximately additive because the tax bases of the three packages are largely separate. The package effects wouldn't add up in the same way if the three packages were in similar areas. This is because there are diminishing marginal benefits from reforming the tax system in a single direction. Here we are taking a more comprehensive approach, which results in larger benefits.

These large benefits include permanent gains of $43 billion in annual consumer welfare, and about 6 per cent in real GDP, 11 per cent in the stock of business capital and 8 per cent in the stock of housing (Table 4). Comprehensive tax reform stands out as a way of delivering large benefits compared to other areas of economic reform.

Achieving those large benefits requires a willingness to collect $91 billion in tax revenue in a different way that is less harmful for consumer welfare. As Theodore Roosevelt said: 'In any moment of decision, the best thing you can do is the right thing, the next best thing is the wrong thing, and the worst thing you can do is nothing'.

8 Final Comments

The Three Packages

The property tax package demonstrates the gains from concentrating on uniform land taxation compared to the current property tax system. Equally, there are big gains in consumer welfare from increasing

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the effective supply of residential land, even though this may reduce land prices and land tax revenue. We should do property tax reform but not compromise on adequate land supply.

A similar lesson holds for corporate tax reform. In part, the corporate taxes package shows the gains from taxing oligopoly rents more and normal returns to capital less. But there are bigger gains in consumer welfare if those oligopoly rents can be eliminated through increased competition (Murphy, 2017). We should do corporate tax reform but not compromise on competition policy.

The household tax package shows the consumer benefits from broadening the tax bases for the GST and payroll tax to fund lower personal tax. To maintain those benefits and avoid regressive bracket creep, the tax brackets need to be indexed.

Further Work

The three packages are likely to benefit from fine tuning informed by results from the new Dynamic CGETAX model, once it is available. The new model will provide a more complete picture of the effects of the packages including on vertical equity and the dynamic path of the economy to long run outcomes.

Regarding equity, it has already been noted that it seems likely that the property and corporate tax packages reduce inequality while the household tax package increases it. The net effect will be analysed in upcoming work and adjustments made to the combined package to maintain equity. At the same time, vertical equity should be judged not just on current incomes, but also lifetime incomes.

Information on dynamics is important for timing the introduction and phasing out of tax systems, especially in the area of corporate tax.

It is also likely that other researchers will be able to help in fine tuning the packages. This includes addressing practical implementation issues such whether a CFT or an ACE is the better form of rent tax.

Other Tax Issues

There should also be a fourth tax package, which would reform the taxation of asset incomes. The two main issues are the overall level of taxation of asset incomes and the pattern of taxation across asset types.

The economics of taxing labour income and asset income are different. The literature generally finds that it is optimal to tax asset income at a lower rate than labour income. This is even true under the relatively low elasticity of intertemporal substitution of 0.25 used in the CGETAX model, which implies a low sensitivity of saving to after-tax rates of return.

Equally, more even taxation of income from different assets would contribute to consumer welfare. Currently, taxation of housing and (through dividend imputation) dividends is low while taxation of interest income is high. However, none of the models referred to in Table 1 are designed to analyse the efficiency benefits of more even taxation of asset income so model development work in that area is needed.

It has been suggested that the major bank levy should be increased as a user pays charge for government backing of the major banks. That could be true except that the Australian banking industry is an oligopoly that already prices well above marginal cost. The major bank levy makes that situation worse so the CGETAX model finds that the major bank levy has a very high AEB of 100 per cent (Table 3). It has long been known that it is much more efficient to apply rent taxes than production taxes to oligopolies.

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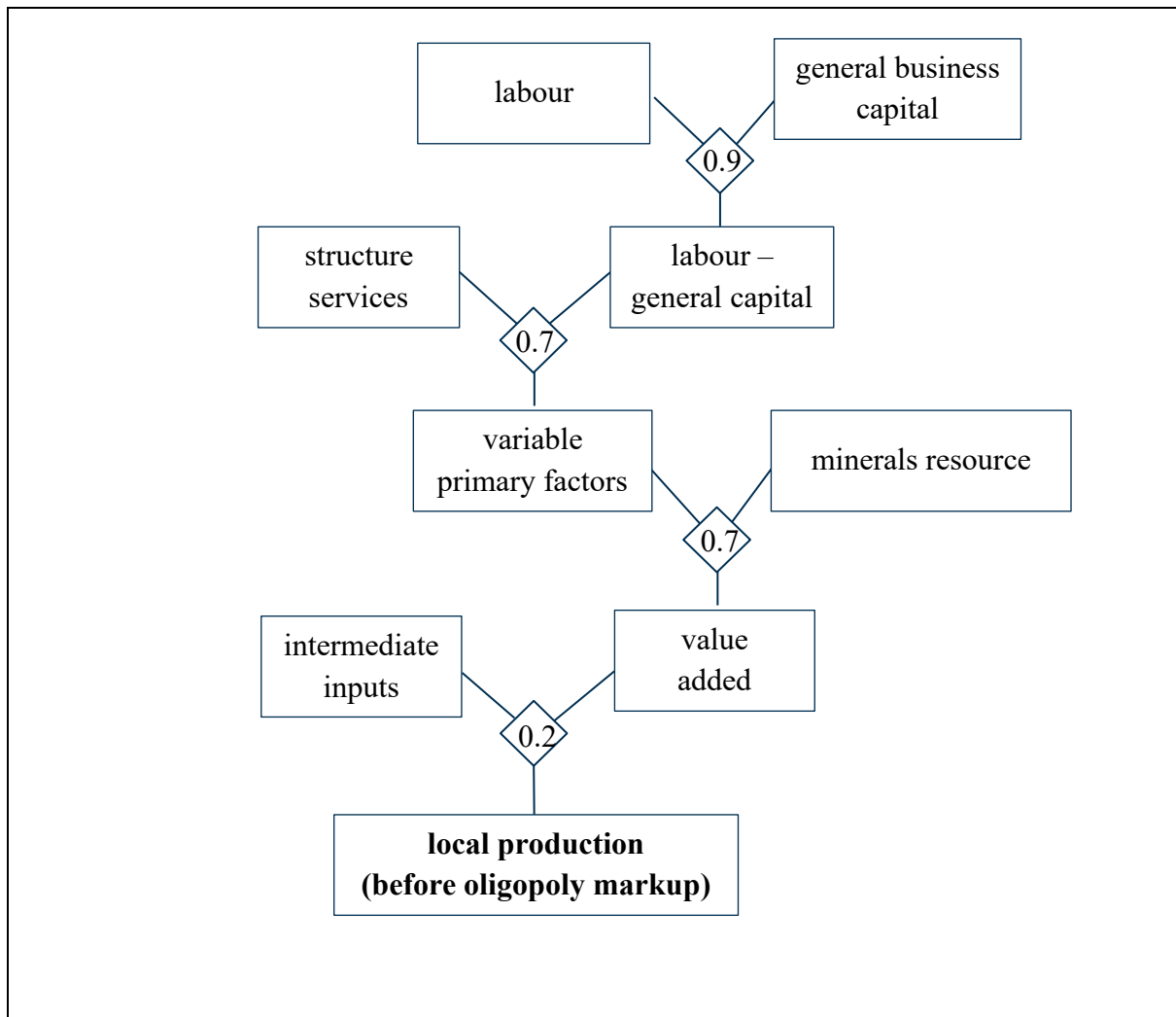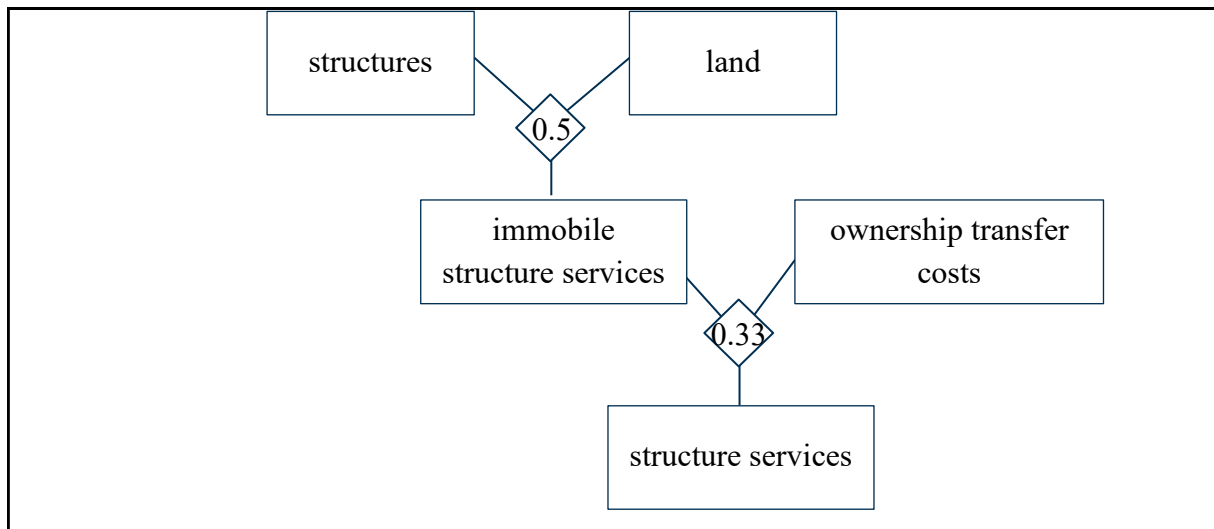
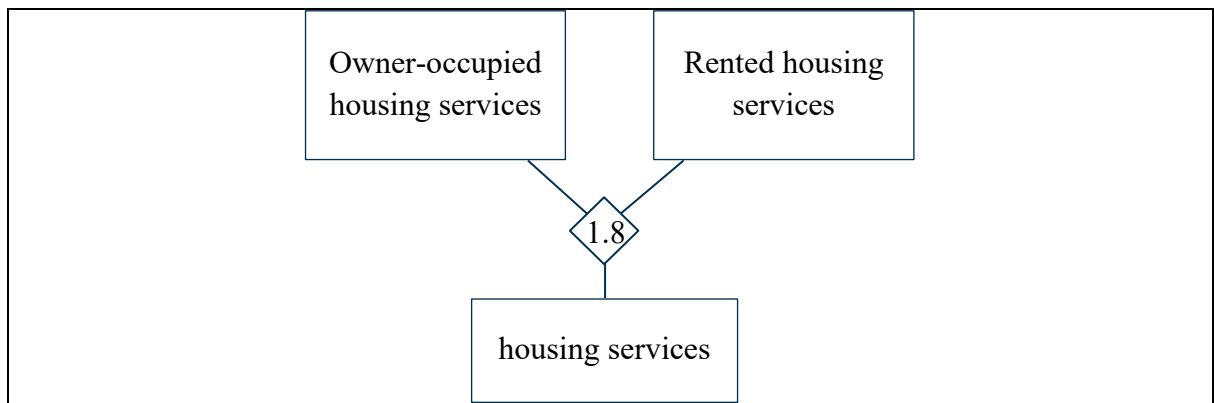**FIGURE 1** Production in each industry

FIGURE 2 Production of Structure Services

FIGURE 3 Consumption of Housing Services