# Section 6 – Assumptions and caveats

### CAPITA is a general-purpose model

CAPITA has been designed to be used as a general-purpose microsimulation model to analyse the distributional impacts of policy across the Australian population and highlight interactions between the tax and transfer systems.

CAPITA is based on a representative sample of the Australian population and consists of a set of rules for calculating the taxes and transfers applicable to each individual. The complexity of the tax-transfer system rules modelled by CAPITA is guided by the level of detail captured in the SIH data. Furthermore, the model has been benchmarked to be used as a general-purpose model with the intention of minimising the changes to weights in the original data. Users are able to select different benchmarks (at their own risk) for the specific purposes of their analysis.

**Importantly, users should note the Australian Treasury does not take responsibility for any results generated by the model.**

Treasury **does not** use CAPITA to cost individual policy changes. Our costings typically use detailed administrative data, consider the timing of tax collections and may incorporate behavioural response assumptions.

### Important policy code assumptions

The table below describes some of the key caveats and assumptions associated with the policy detail in CAPITA and the rationale underlying the chosen approach.

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| **Description of issue** | **Rationale for approach chosen** |
| **Module: Dependants** | |
| Medicare Levy dependants | Assume taxpayer contributes to maintenance of all dependants in the income unit. |
| Away from home dependants are not linked to their parents in CAPITA | The SIH does not provide information on these linkages but as at 15 November 2013, less than three per cent of all youth allowance recipients are affected by the parental means test. |
| **Module: Pensions** | |
| Special exemption from means-tests for blind pensioners not modelled | This is difficult to model due to lack of data, and in any case the assumed impact is thought to be small. |
| DSP under 21s will not be able to receive the dependent rate. Those who are the reference or spouse of an income unit will receive the under 21 independent rate while those who are dependent children will have their DSP income uprated in the basefile. | Dependent DSP recipients make up a very small proportion of the overall DSP under 21 population. Modelling them accurately would increase the complexity of the code for very little gain. |
| Assistance for Isolated Children allowances | Not modelled |
| Shared care | Some Parenting Payment recipients on the SIH do not have dependants (only 30% care is required to qualify for payment) and these records will generally not get PPS in CAPITA, even though they do in the real world. |
| For sole parents of Age Pension age who are in a certain income band, receipt of Parenting Payment Single is more favourable than the Age Pension due to difference in tapering rates. | CAPITA assigns payments based on receipt on the SIH. If this condition is removed the following arguments become relevant for assigning the Age Pension in preference to PPS. There are less than 1000 PPS recipients over the age of 60, let alone over age pension age. Having a dependant a child under the age of 8 would be unlikely for a person over age pension age, even for grandparent carers. Also, roughly 70% of PPS recipients receive the maximum rate and therefore, would be better off on a post-2009 pension. While theoretically someone with sufficient income would be better off on PPS than going onto the Age pension, DSS has never heard of such a case. A more likely scenario would be someone electing to remain on PPS because they do not meet the residency requirements for Age Pension. The numbers are too small to be of consequence for modelling in CAPITA. |
| Income support recipients who fail to disclose marriage-like relationships. | To the extent individuals are more likely to disclose their marriage status on the SIH than to DSS, there may be an over reporting of single status and under reporting of couple status in the SIH relative to actual the policy experience. |
| **Module: Allowances** | |
| Payment eligibility – we cannot assign payment eligibility due to a lack of information on the SIH. Rather, eligibility is assigned based on receipt of payment in the SIH. | This is the only approach possible due to a lack of information on the SIH. This means that changes to eligibility criteria cannot generally be modelled. Impact of chosen approach is assumed to be small. |
| Allowance income test – income reported under SIH is used rather than deeming a return on financial assets. | Uprating of reported income likely to be more accurate (and less sensitive) than forecasting deeming rates. Impact of chosen approach is assumed to be small. |
| Assets test – not currently implemented. | The accuracy of asset information on the SIH is unknown. If this proved reliable, the assets test could be incorporated. Under the current approach, some beneficiaries will be modelled as receiving higher rates of allowances than their assets would actually allow. |
| Residency requirements – currently modelled explicitly using year of arrival while also being conditioned on receipt of a payment in the SIH. | Alternatively we could use the fact that someone getting a payment on the SIH must have satisfied the residency requirements. It seems odd to require both conditions (years of residence and AUSTUDY receipt on SIH) to hold. Consider moving to a single condition (receipt of AUSTUDY on SIH). Impact of chosen approach is likely to be small. |
| Austudy recipients do not satisfy the activity test for qualifying study if they have already completed a Doctorate or equivalent qualification. This is not currently modelled as there is insufficient information in the SIH. | This is the only approach possible due to a lack of information on the SIH. It is unlikely that there are many Austudy applicants who fall into this category. The impact of this approach in CAPITA is expected to be minimal. |
| There is concern about recipients of income support who fail to disclose marriage-like relationships. Community expectation is that couples in a marriage-like relationship should support each other financially before calling on taxpayer funded resources[[1]](#footnote-1). | To the extent individuals are more likely to disclose their marriage status on the SIH and are less likely to do so to the DSS, there may be an over reporting of single status and under reporting of couple status in the SIH relative to actual the policy experience. |
| Widow allowance - Widow requirements – we cannot explicitly model if a person has become widowed, divorced or separated since turning 40. | There is insufficient information in the SIH. The chosen approach is expected to have little impact as we will use receipt of Widow Allowance in the SIH as a condition for receipt of Widow Allowance in CAPITA. |
| YA dependents - Except for the workforce participation criteria (which are imputed), we do not have any other information to assign workforce independence to young people aged under 22. | This is the only approach possible due to a lack of information on the SIH. This means that changes to eligibility criteria cannot generally be modelled. Impact of chosen approach is assumed to be small |
| Activity test – the activity test for YA and NSA cannot be modelled as there is insufficient information in the SIH to model it. | Receipt of YA or NSA in the SIH is already used as a criterion to receive YA or NSA in CAPITA. The effect is assumed to be small. |
| YA away from homes not modelled | Linkages between away from home students and their parents are not modelled in CAPITA. |
| Parental assets test YA | Not modelled in CAPITA |
| If the partner receives dependent YA their income is not taken into account for income testing. Legislation for ‘member of a YA couple’ is stricter than the definition for ‘member of a couple’. There is not enough information on the SIH to model this group. |  |
| **Module: Tax** | |
| Dependency Offset not modelled | There is insufficient administrative information on expenditure and number of recipients. The structure of the policy has recently changed.  Information on the Dependency Offset is not recorded in the SIH, and therefore, there is insufficient information for it to be modelled in CAPITA. |
| Higher Education Contribution Scheme (HECS) not modelled | There is insufficient information in the SIH to model HECS. HECS debt is only included at the household level and not at the individual level which would be needed to calculate tax liability. |
| Net Medical Expenses Tax Offset (NMETO) not modelled | NMETO is not included in the SIH and medical expenditure information is not included. This means there is insufficient information to model NMETO in CAPITA. |
| Zone Tax Offset (ZTO) not modelled | There is insufficient information on the SIH to model the Zone Tax Offset. The SIH does not contain the appropriate level of geographic information that would be needed to calculate the Zone Tax Offset. |
| Tax offsets modelled are not exhaustive | A total of five tax offsets are included in CAPITA. The total amount of actual tax offsets may be higher. This means income tax may be lower. |
| Does not model DICTO paid with respect to non-spouse invalid dependants. | To be included in a later version. |
| Does not model DICTO paid with respect to dependent carers. | Cannot currently distinguish whether Carer Allowance or Carer Payment are paid to dependant carer with respect to someone other than the spouse. |
| Medicare levy - Prescribed persons are not modelled. These are individuals who would be exempt from the Medicare levy and surcharge. | There is insufficient administrative information to model this class of Medicare customers. |

### Economic parameters

The wage and price forecasts used in the CAPITA model have been based on the published forecasts in the 2017‑18 budget; the average wage forecasts have been based on the wage price index forecasts.

### Updates

CAPITA will be updated to incorporate changes to policy, economic parameters, the underlying survey data and enhancements to the model. Updates will be conducted at least once per year (in the months following the Budget) and made available on GitHub.

1. http://www.dss.gov.au/about-fahcsia/publications-articles/corporate-publications/budget-and-additional-estimates-statements/2004-05-budget/whats-new/budget2004-04\_compliance\_parenting [↑](#footnote-ref-1)