

AC-3-3

15 June 2009

Treasury Circular 2009/06

Unrestricted Distribution

Chief Financial Officers/ Directors of Finance/ Chief Accountants

## **CALCULATING LONG SERVICE LEAVE AND RETIRING LEAVE LIABILITIES FOR CROWN REPORTING ENTITIES <sup>1</sup>**

1. The purpose of this circular is to issue two new excel models (spreadsheets) to calculate Long Service Leave (LSL) and Retiring Leave (RL) liabilities. This circular also:
  - replaces Treasury circular 1998/15 (TC 1998/15) *Recognition of Employee Entitlement Liabilities*, and
  - withdraws the LSL model issued as an attachment to the 1998 circular (now referred to as the 'old model')
2. While the principles of TC 1998/15 remain largely the same, our independent actuary has built significantly enhanced excel models, including the following features:
  - updated employee leaving probability tables ('withdrawal rates');
  - flexibility to add your entity's specific benefit patterns (up to 10 LSL patterns and 3 RL patterns);
  - a framework for analysing the drivers for the change between annual valuations;
  - an ability to run sensitivity analysis for changes to assumptions;
  - embedded instructions in the work book on how to use the excel models;
  - the ability to forecast (based on the number of employees at valuation date);
  - valuation results reported by total, cost centre and individual employee, and
  - an ability to value LSL and RL for up to 12,000 employees.

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<sup>1</sup> This includes all Departments, Offices of Parliament, State-owned enterprises and Crown entities.

3. The new models have been reviewed by the Office of the Auditor General (OAG) for compliance with NZ IAS 19 *Employee Benefits*. The OAG is satisfied that, if used appropriately, the models calculate Long Service Leave and Retiring Leave liabilities that comply with NZ IAS 19. If you use these models, you can expect your auditor to focus their audit of the liabilities on payroll data accuracy, your assumptions, such as discount rates and final retirement age, and benefit rules. The accounting recognition and measurement aspects of these liabilities are addressed in NZ IAS 19 Employee Benefits, and embedded in Treasury Instructions.
4. If you currently use the old model or have adapted another model based on TC 1998/15, please switch to calculating LSL and RL liabilities using the new models. This applies for the financial year ending 30 June 2009 and beyond.
5. If you engage independent actuaries, or use in-house models that have been approved by an independent actuary, you have a choice. You may either continue to engage an independent actuary to value LSL and RL liabilities or switch to using the new models issued by Treasury. We expect the new models to suit entities with small to medium numbers of employees, where benefits are not complex or where the size of LSL and RL liabilities does not warrant an independent actuary's valuation.
6. The LSL and RL models are protected by Crown copyright and may only be used in accordance with this Treasury Circular [TC 2009/06] for the purpose of calculating LSL and RL liabilities. The LSL and RL models must not be provided to or used by any entity which is not a Crown reporting entity<sup>2</sup> without the prior written permission of the Treasury.

### **Sick Leave Liabilities**

7. We are planning to roll out a sick leave excel model and guidance in time for October baseline updates and the 2009 half year economic and fiscal update exercise. For the financial year ending 30 June 2009, sick leave liabilities should be calculated using the same methodology as you used for 2008 (which may include using the Treasury's 2005 Guidance on Accounting for Sick leave under NZ IAS 19 Employee Benefits.  
<http://www.treasury.govt.nz/publications/guidance/finmgmt-reporting/accounting>). The OAG supports the 'status quo' until such time as a new model is agreed.
8. The rest of this circular provides further details on the LSL and RL models, the economic assumptions that Treasury has specified and some recommendations on testing the models and running sensitivity analysis.

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<sup>2</sup> This includes all Departments (as that term is defined in section 2 of the Public Finance Act 1989), Offices of Parliament (as that term is defined in section 2 of the Public Finance Act 1989), State enterprises (as that term is defined in section 2 of the State-owned Enterprises Act 1986), Crown entities (as that term is defined in section 7 of the Crown Entities Act 2004), organisations named or described in Schedule 4 of the Public Finance Act 1989, New Zealand Superannuation Fund, Reserve Bank of New Zealand and Air New Zealand Limited.

9. If you have any questions regarding this circular or use of the new models please contact Angela Ryan ([angela.ryan@treasury.govt.nz](mailto:angela.ryan@treasury.govt.nz)) (04) 917 6102 or the CFISnet Helpdesk ([cfisnet@treasury.govt.nz](mailto:cfisnet@treasury.govt.nz)) (04) 917 6198.

Hugh Packer  
for Secretary to the Treasury

## The Long Service Leave and Retiring Leave models

10. The two separate models, one for LSL and one for RL are available to be downloaded from CFISnet as an attachment to this Treasury circular.<sup>3</sup> The models to download and use are named 'LSL model V6 no data.xls' and 'RL model V6 no data.xls'.
11. Guidance on how to use the excel models is included in the work book in a work sheet called 'Instructions'. This worksheet contains details on how to input the assumptions, payroll data and benefit rules and how to run the calculations. It is recommended that you read the entire 'Instructions' page and peruse the various pages of the model prior to importing data and calculating liability values.
12. The workings of the model and output pages are protected. You can only enter data into the yellow highlighted cells. You will need to understand the requirements of each yellow cell and enter only the appropriate data.
13. The downloaded models will have the "Assumptions" page pre-loaded with data for demonstration purposes. These are not necessarily the assumptions that should be used at 30 June 2009. For example discount rates and inflation rates to be used at 30 June 2009 are obtained from the **Economic Assumptions** section below.
14. A separate example of each model, including dummy data, rules and assumptions is also attached to this circular. The purpose of providing a full valuation example is so you can see how the model should be populated and how the results of a valuation are displayed. This example will be fully protected and will be unable to be amended.
15. The LSL and RL models require data to be extracted from payroll systems for each relevant individual employee and imported into the correct excel worksheet. Working with payroll to provide high quality and appropriate data is a vital part of the process. The models require the following inputs (in order):
  - Unique employee ID reference (e.g. payroll number)
  - Costing Group reference (Grouping for results e.g. cost centre)
  - Date of Birth
  - Employment start date
  - Scheme start date for employee
  - Employment agreement name (linked to benefit rule tables in the 'Rules' worksheet)
  - Salary (FTE)
  - Salary proportion, e.g. 1 if full time or a % for part-time, and
  - For the LSL model only, either:
    - Days of LSL vested

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<sup>3</sup> For stream C State-owned enterprises and Crown entities that do not have direct access to CFISnet, the excel models will be emailed along with this circular.

- Days of LSL taken and a formula calculating the difference between the two, or
  - LSL days outstanding
16. Employee leaving probability tables, also referred to as ‘withdrawal rates’, have been determined with reference to updated public service leaving statistics. It is important to recognise that the standard withdrawal rates represent a public service average and provides an overall shape of withdrawals. Actual levels of turnover can vary by entity. Therefore the model allows you to adjust the absolute level of withdrawals produced by the standard rates if you believe that the standard rates are not appropriate for you in the long term.
17. The models and the detailed results of the valuation are not required to be returned to Treasury. The models are designed as in-house tools for you.

### **Economic assumptions**

18. Treasury will specify the following economic assumptions to be used in the two models:
- the discount rates for (a) one year, (b) two years and (c) longer term (three years plus), and
  - the long term salary inflation rate for year 2 onwards.
19. **Treasury will publish the three discount rates to use for the LSL and RL valuations at 30 June 2009 on the CFISnet homepage in early July<sup>4</sup>.** You will be required to use these discount rates as inputs for these new models. The discount rates will be referenced to the New Zealand Government bond yield curve published 30 June 2009.
20. **The long term salary inflation rate assumption to use for the LSL and RL valuations at 30 June 2009 is 3.5%.** This assumption will be confirmed each year by the Treasury and will be published on the CFISnet homepage along with the discount rates.
21. This rate is based on using a 2% long term inflation assumption (being the middle of the RBNZ’s inflation target band of 1% and 3%) plus 1.5% for long term labour productivity growth. On average over the longer term we would expect that nominal wages and salaries would grow approximately in line with inflation and the rate of labour productivity growth.
22. The salary inflation rate assumption for the next year following the valuation date (Year 1) is left for you to decide. This enables you to reflect any specific organisation policy in place at the time of the valuation. For example, in the

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<sup>4</sup> For stream C State-owned enterprises and Crown entities that do not have access to CFISnet the discount rates will be emailed to you (along with your year-end DataLoad work books) in July.

current economic environment you may have decided to have no or minimal salary increases in the next year, while others may have employment contracts which incorporate salary increases over the next year.

### Testing and sensitivity analysis

23. An ideal way for you to become familiar with the new model before the 30 June 2009 year end is to run a valuation using your previous 30 June 2008 payroll data and economic assumptions. This will allow you to compare the valuation from the new model with the old valuation to test the reasonableness of the result. It should be noted that the withdrawal tables (leaving probabilities) in the new model are different from the 1998 ones so a difference between the two valuations should be expected.
24. As with all valuations involving the forecasting of long term cash flows and discounting them to present value, a number of assumptions and judgments are required. Some assumptions may have a more significant impact on the valuation than others. You have the ability to run different valuation scenarios to test the sensitivity of changes to certain assumptions. For example the model can be run using different discount rates to assess the impact on the valuation (e.g. a discount rate change of plus or minus 1%). This can provide assurances around year end valuations and enable you to disclose sensitivity impacts.
25. All movements between the LSL and RL valuations published or submitted to CFISnet at the end of last year and the new valuation reported at 30 June 2009 should be booked through the 2009 operating statement.
26. It is possible that the final movement between the published 30 June 2008 and 30 June 2009 valuation results in an unexpected larger than forecast charge to the operating statement. Reasons for significant movements in LSL and RL can vary and may be due to material changes in economic assumptions like discount rates, changes in employee data or changes in benefits allowed. For departments this may have appropriation consequences. In the event of this occurring, departments will need to assess if the movement is due to a re-measurement (e.g. a change in the discount rate) or requires approval (e.g. a change in the leave policy).

**Details of new excel models:**

<i>Version of Excel:</i>	<i>2003</i>
<i>Approximate size of each vanilla model:</i>	<i>5MB</i>
<i>Copyright:</i>	<i>The Crown</i>