Pensions Policy Institute Modelling Seminar

15 June 2006

The PPI held a modelling seminar on 15 June 2006 to present details of the modelling techniques used in PPI to other members of the modelling community.

15 people attended the seminar, which was chaired by Andrew Young (The Pensions Regulator).

Adam Steventon (Modeller / Research, PPI) gave an overview of the PPI modelling suite.

Chris Drane (Head of the modelling development unit, Department for Work and Pensions (DWP)) gave an overview of the DWP's dynamic micro-simulation model, PENSIM2.

The following points were raised in discussion:

1. Modelling is limited by data availability (particularly for private pension wealth, though the English Longitudinal Study of Ageing (ELSA) has improved this for people in England aged 50 and older). This may improve in future with the launch of the ONS survey of Wealth and Assets.

2. There is a trade-off in modelling between including a large number of variables and interactions, and transparency. For example, it can be hard to see which factors are driving income changes in dynamic models where there are a large number of interactions to model. On the other hand, if models are too simple they may not pick up important drivers of change.

3. Neither PENSIM2 or PPI models explicitly include behaviourial changes (such as changes in the amount of saving in response to changes in the state pension system). PENSIM2 does include some 'feedback' within the modelling where some variables are linked to modelling outcomes.

4. Neither model explicitly includes migration. This could be an important determinant of future labour market participation and pension entitlement.

5. There is scope to used PENSIM2 to look at other areas or policies that have a lifecycle dimension other than pensions. For example, one potential further use would be to look at accumulated income tax and NI payments throughout the working life.

6. However, concern was expressed that trying to incorporate too much into any one particular model can limit its use in the areas that it was initially designed to analyse. There is a further trade-off between general and specific models: to model all aspects well would require an increase in data, assumptions and complexity of the model, at the expense of ease of use and transparency. An alternative approach would be to use different models but common sets of assumptions, or use the output from one model as an input to another.

7. Further areas for possible development of PPI models include:
   - Housing Benefit and Council Tax Benefit
   - Property and other forms of wealth
   - Long-term care (feeding into other models rather than modelling it within the PPI models)

8. The external validation of PPI models and dissemination of methods, assumptions and results has enhanced the credibility of the PPI modelling suite, particularly among analysts. Credibility with policy makers could be further enhanced through face-to-face discussions on specific issues. This could cover, for example, modelling of a specific policy or benefit, including how results should be interpreted.