The Power of the PPI Models

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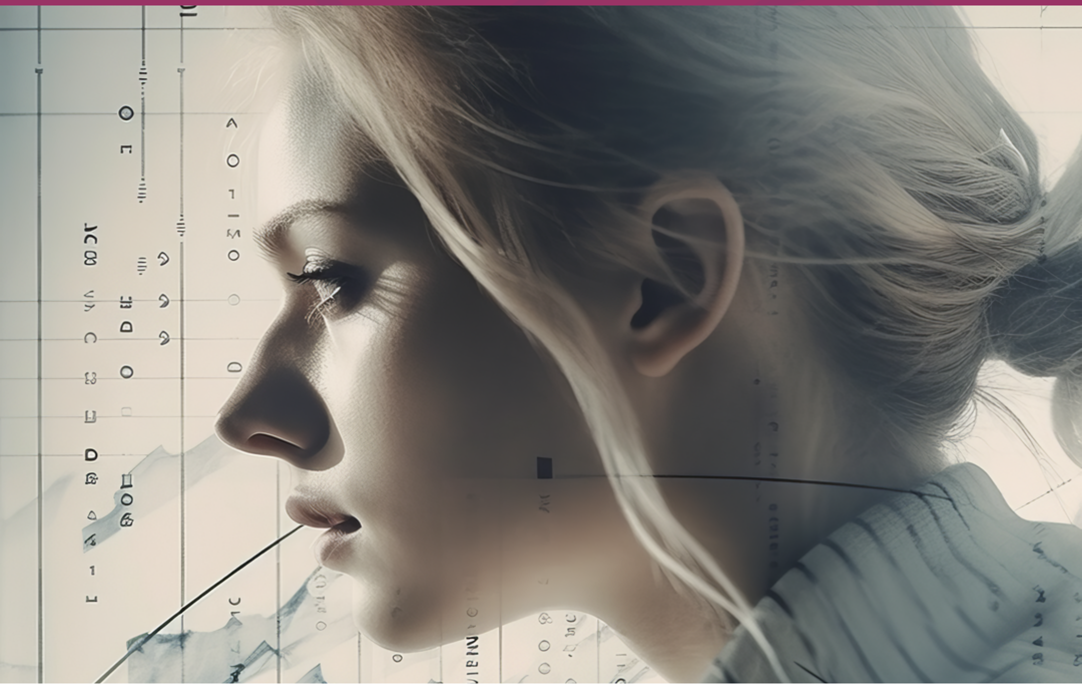

To gain the greatest impact from policy analysis requires not just qualitative research but to be able to quantify the implications for those who may be affected.

A policymaker must know who stands to benefit, what is the cost and who may bear it.

Through the PPI's modelling we seek to answer these questions by testing alternative futures of policies, behaviours or circumstances.

The PPI maintains a suite of models used to build up a view of the future.

Considering impacts upon:

Individuals and their finances

The Exchequer and their cashflow

Employers in private sector provision

What do we model and why do we model it?

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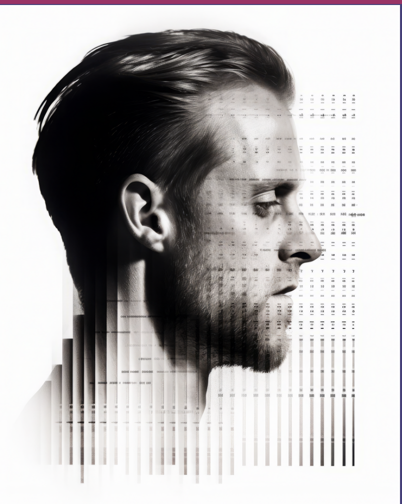

The PPI maintains a suite of models used to build up a view of the future, considering the world from either the impacts upon individuals and their finances or the impact upon the exchequer and their cashflows.

We have the ability to use the models stochastically, leveraging an Economic Scenario Generator developed by the Department of Mathematics at King's College London to quantify the uncertainty in our projections.

Using the **Individual Model,** we can project the retirement of an individual or household understanding their finances in retirement allowing for their private pension saving and financial circumstances alongside state provision and benefits. At a larger scale the **Dynamic Model** allows the projection of a complete cohort of individuals with their own financial circumstances and allows for dynamic behaviour based upon their attributes throughout the projection.

The **Aggregate Model** allows us to consider the future from the perspective of the Exchequer. The model has the capacity to project the pension provision of the UK in aggregate looking at the costs and cashflows and numbers of individuals both accruing savings and in receipt of both private and state pension. The **Distributional Model** takes these aggregate projections and uses a representative distribution of pensioners to understand the implications that changing levels of savings and provision will have upon the costs and take up of means tested benefits in the pensioner population.

We have developed supplementary and ad hoc models allowing us to investigate other issues. These have allowed us to undertake projections of providers in both the Defined Benefits and Automatic Enrolment Defined Contributions arenas as well as investigate issues such as tax relief and Collective Defined Contribution pension schemes to a greater depth.

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Why is our modelling special?

We use our models, not to confirm a hypothesis or to justify a policy position, but to investigate and to quantify.

We are open and honest about the assumptions and approach used, primarily taking our economic outlook from the Office for Budgetary Responsibility.

This ensures an open, consistent view which can be compared with projections from other bodies. Based upon this openness we communicate our results to those who need to understand the implications of the policies not the implications of our models. We add value to the numbers through interpretation of the results to illustrate the ramifications of the options being modelled and communicate them in appropriate language to those who need to understand.

The result is that we model more issues in an unbiased manner without the preconceptions, commercial concerns or political bias that may be present in other projections. There is independent oversight of the models and assumptions by the PPI's Model Review Board to ensure that the models remain effective, informative and free from bias.

How did the models get here and where are they going?

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The models were originally developed with funding from the Nuffield Foundation. They have been supplemented with input from the Department of Mathematics at King's College London who developed the stochastic functionality.

The models are constantly under review to ensure that they are fit for purpose and reflect the current policy environment. This includes updates to the populations projected and the assumptions made about their life-courses as well the economic and policy environments that this takes place in.

On top of this we ensure that there is the flexibility to model alternative scenarios to be able to continually inform the pensions debate and ensure that policy is based upon robust evidence.

For further information or to find out how you can embrace

THE POWER OF THE PPI MODELS

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