



Income Protection Committee

Summary of Working Paper 102: Income Protection experience by benefit amount band and policy duration, 2003-2010

August 2017

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Introduction

This document provides a brief synopsis of Working Paper 102, which considers individual Income Protection (IP) experience in 2003-2010 by benefit amount and policy duration. For more detail, readers are encouraged to refer to the full Working Paper¹.

The data

The IP data received by the CMI consists of a record for each in force policy, in respect of each calendar year end, and a record for each sickness claim (at policy level) which is in force during an investigation year. All records contain fields describing the attributes of each policy and the policyholder, and claim records contain additional fields relating to the duration and other features of the claim.

Our regular outputs analyse claim inception and terminations experience by calendar year, sex, deferred period (DP), CMI occupation class (OC), age and duration sick but do not make use of other fields collected that may be used as rating factors by practitioners. Although we do not propose incorporating these factors into our regular analyses, at least in the short term, we considered that analyses by benefit amount and policy duration would be of interest to CMI Subscribers.

Five amount bands – based on annualised initial benefit amounts – were chosen to provide a relatively even spread of the in-force data, measured by the number of data records. Policy duration – determined up to the date of sickness – was also split into five groups, but these were chosen by intuition as to where we might expect to see select effects, rather than to distribute the data evenly.

Methodology

The analyses used the investigation's standard methodology, as described in Working Paper 59, to analyse subsets of data; that is, subdivided by either benefit amount band or policy duration group. Results are presented comparing actual claim events (inceptions and recoveries) with those expected according to the IPM 1991-98 graduations of sickness experience, which reflect the experience in 1991-1998 of males in OC1. Each comparison is expressed as a 100 x Actual/Expected (A/E) ratio.

The analyses aimed to exclude duplicates; however, duplicates cannot be identified directly in in-force data as the data is not detailed enough to reliably match records; instead, the methodology scales the in-force data based on (smoothed) ratios of duplicates in the claims files. We could not apply this approach before segregating the data and therefore, for inceptions analyses, were restricted to identifying duplicates only within bands, not across the full dataset. The effect was largest for the analysis by benefit amount (where the data was less-concentrated) – which led to us omitting results from this analysis for OC1 males with DP1 policies – and where data was sparse, but we consider the impact to be immaterial to the conclusions we have drawn in the paper.

We were able to reliably identify duplicates in the claims files, due to the additional fields available, and so the analyses of claimant recoveries allowed for duplicates using our standard methodology.

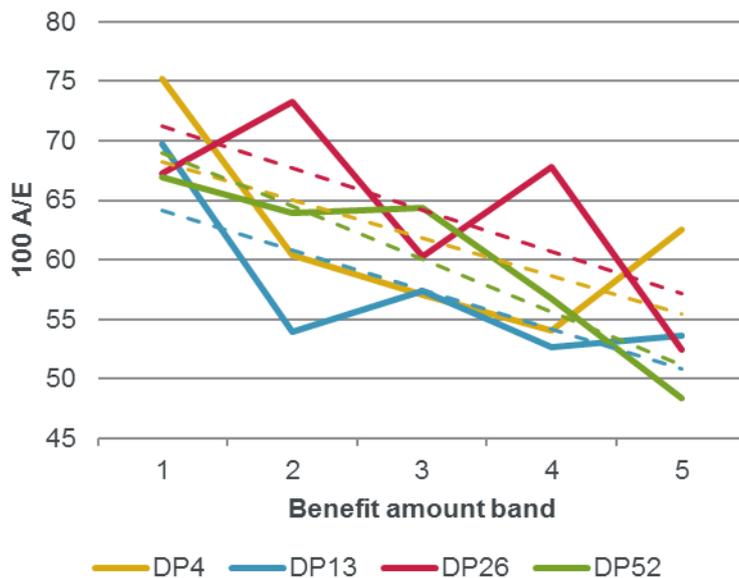
¹ Most of the CMI's research is only available to employees of subscribers and to researchers, for non-commercial use. Details of how to access the full paper and the CMI's other research can be found on the [CMI's web pages](#).



Claim inceptions experience by benefit amount band

In general, for males there was a downward trend of lighter experience for policies with larger amounts. This is shown in Chart 1 which displays the experience for males in OC1 by benefit amount band (where 1 is smallest and 5 largest) and deferred period, as well as linear trend lines (based on a simple least-squares method, which gives equal weight to each data point).

Chart 1: Claim inceptions experience, Males, OC1, 2003-2010; by benefit amount band and deferred period



“...experience was approximately 20%-30% lighter for the largest amount band compared with the smallest...”

For males in OC1, experience for DP4-DP52 policies was approximately 20%-30% lighter for the largest amount band compared with the smallest. In OCs2-4, the data was weighted towards the smaller amount bands and shorter DPs, making the experience less credible, although a similar trend was evident, except for DP4 policies where the reverse seemed true.

For females in OC1, our analysis suggested that benefit amount may have had little impact on inceptions experience. The combined OCs2-4 experience showed a mixture of apparent trends but its credibility was limited.

Claimant recoveries experience by benefit amount band

For both males and females, there was some evidence of higher recovery rates for policyholders with smaller benefit amounts.

For males, this was true for DPs13-52 (OC1 and OCs2-4) and DP4 (OCs2-4 only), with the differences most significant for DP13 policies in OC1. The short DP policies in OC1 showed a slight trend in the other direction. For DP4, this may just have been random variation, but for DP1, the experience of policies in the largest amount band was significantly higher than in the other amount bands.

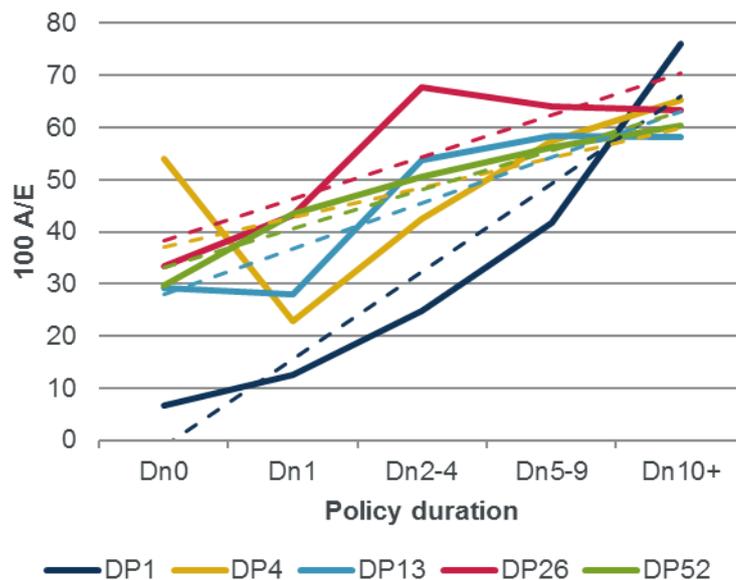
For females, the results were more erratic, particularly for OCs2-4 where there were no clear trends. For OC1, all DPs except DP1 showed some evidence of a downward trend – as for males – albeit with relatively wide confidence intervals.



Claim inceptions experience by policy duration

The experience exhibited a select effect of lower inception rates at short durations for both males and females. This is demonstrated in Chart 2 which displays the experience for males in OC1 by policy duration and deferred period, as well as linear trend lines (based on a simple least-squares method, which gives equal weight to each data point).

Chart 2: Claim inceptions experience, Males, OC1, 2003-2010; by policy duration and deferred period



“...in OC1 there is a selection discount of around 50% relative to ultimate rates for DPs13-52...”

For males in OC1 there was a selection discount of around 50% relative to ultimate rates for DPs13-52 and even stronger for DP1. DP4 experience was markedly heavier at duration 0 than duration 1, but it had limited credibility. It should be noted that in all cases there were relatively few inceptions at short durations. Apart from DP1, there was limited variation beyond duration 4, suggesting that it would be reasonable to assume a select period of up to five years, or possibly less.

For OCs2-4, the effect was less clear but there was some evidence of a selection discount; although again, the data was sparse at short durations.

The female experience exhibited similar traits to that of males with a selection discount of similar magnitude. There appeared to be some evidence of the select effect extending beyond four years, but it was not strong.

Claimant recoveries experience by policy duration

We have found only limited evidence of policy duration affecting recovery rates. For males in OC1 and OCs2-4, except for DP52 where the reverse was true, recovery rates appeared to be a little higher when policyholders fell sick at longer policy durations – more so for shorter DP policies – but the evidence was not strong. Similarly, females in OC1 generally experienced slightly lower recovery rates at short policy durations but with limited significance. There was no clear evidence of recovery rates varying by policy duration for females in OCs2-4.

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