



Institute
and Faculty
of Actuaries

E09: Defining Claims Inflation - Round Table

Markus Gesmann

05 October 2015

Agenda

- A brief history and motivation
- Defining claims inflation
- Claims inflation in the context of price monitoring
- Summary & Discussion

A brief history

- 2012
 - Lloyd's receives questions on claims inflation
 - 2013
 - “A known unknown”, The Actuary, May Issue
 - Data & Intelligence Day 2013
 - 2014
 - Set up of **working group** with Lloyd's market practitioners to define claims inflation
 - Publication on www.lloyds.com/claimsinflation
 - 2015
 - First submission of plans with reference to agreed definition
-

Motivation

- Claims inflation can have a significant impact on insurer's balance sheet
 - No consistent definition existed
 - Estimates not comparable so unverifiable
 - Similar situation to price monitoring at Lloyd's pre-2009
 - No consistent approach for risk adjusted rate change (RARC)
-

Lloyd's aim

- Agree a standard definition for claims inflation
 - Foster language that allows comparison of claims inflation across lines of business and companies
 - Update instructions where Lloyd's asks for claims inflation, e.g. SBF118
-

Definitions

Inflation

- Change in **cost** of a “**basket of goods and services**” across time

Claims inflation

- Change in **expected ultimate loss** for a given **policy** across time
 - Insurance contract / claims service / “**basket of words**”
-

Inflation

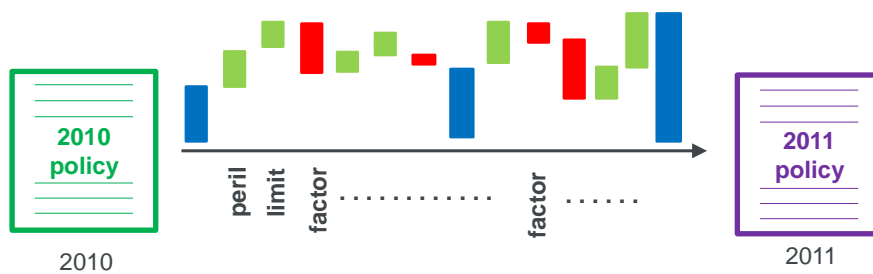
Features

- Compare identical **product**
 - Specific to **product**
 - Specific to **process**
 - Not **model** specific
 - Entire **effect of time**
-

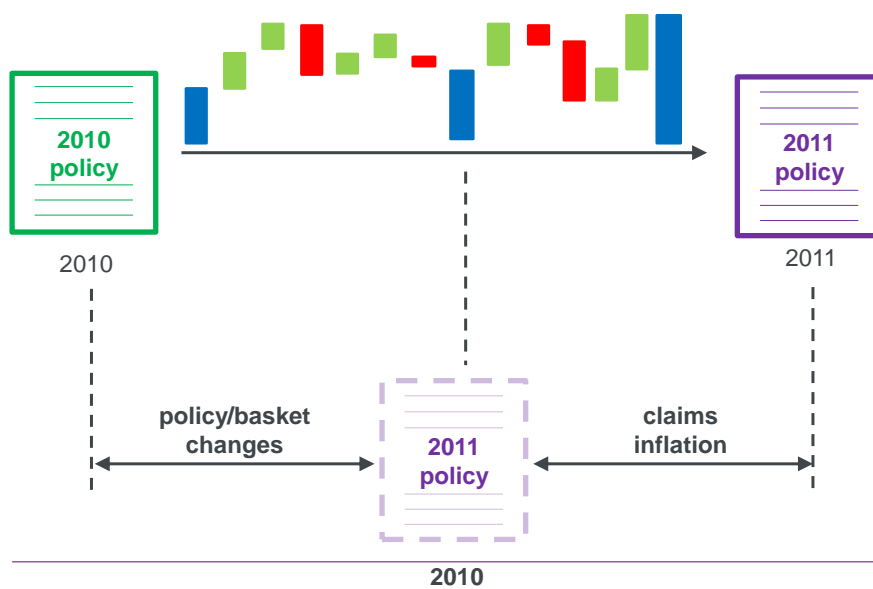
Change in basket cost



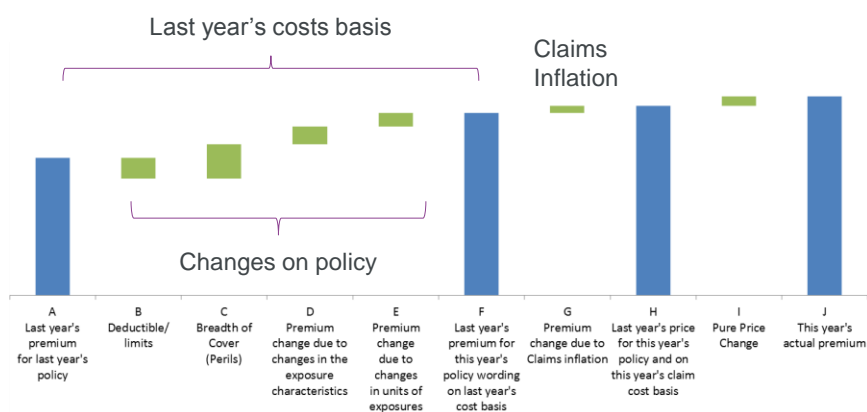
Change in basket cost



Change in basket cost

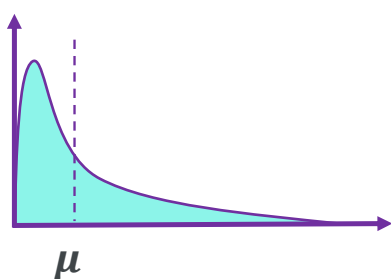


Claims inflation as part of price monitoring



Source: www.lloyds.com/claimsinflation

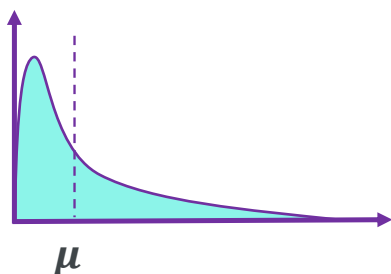
Definition vs estimation



PARAMETER

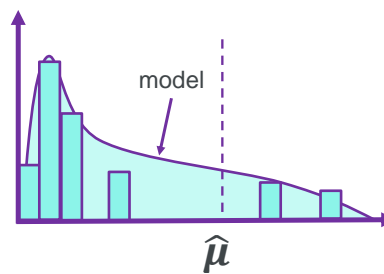
- **Define** claims inflation
- Function of **distribution**
- Not **observable** in sample

Definition vs estimation



PARAMETER

- **Define** claims inflation
- Function of **distribution**
- Not **observable** in sample



ESTIMATOR

- **Estimate** claims inflation
- Function of **data**
- **Sampling, modelling** error

Product specific

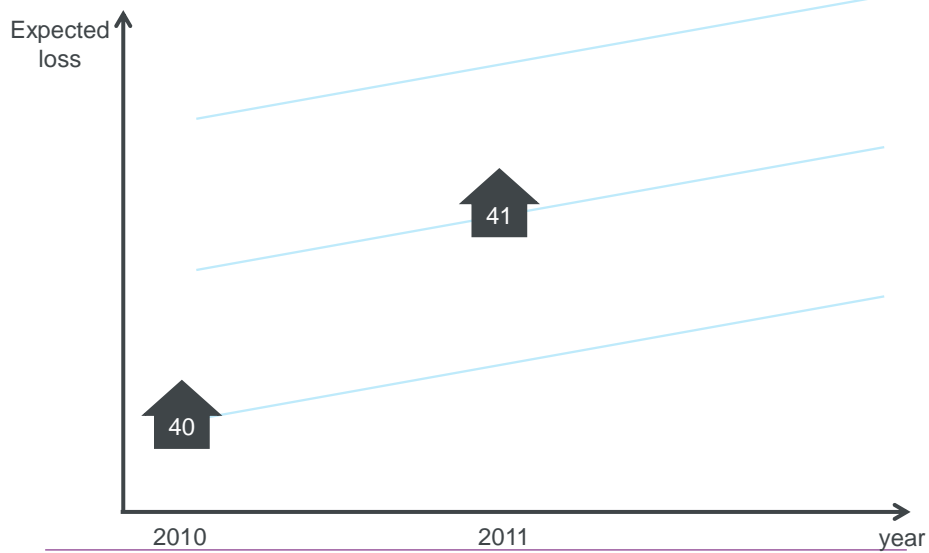
Property details

- Property built in **1970**
- Consider insuring in **2010**

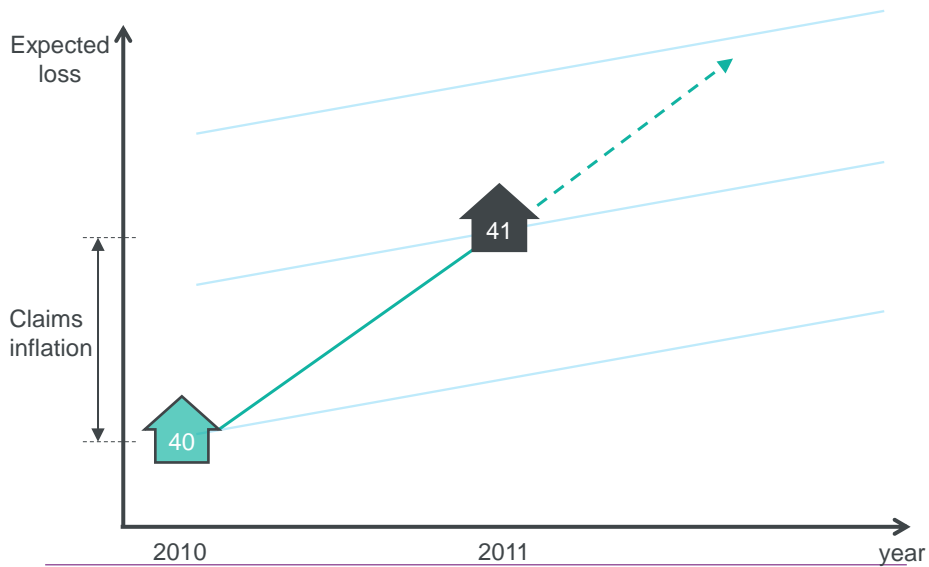
Alternative products

- Insurance contract for specific **year built**
- Insurance contract for specific **age**

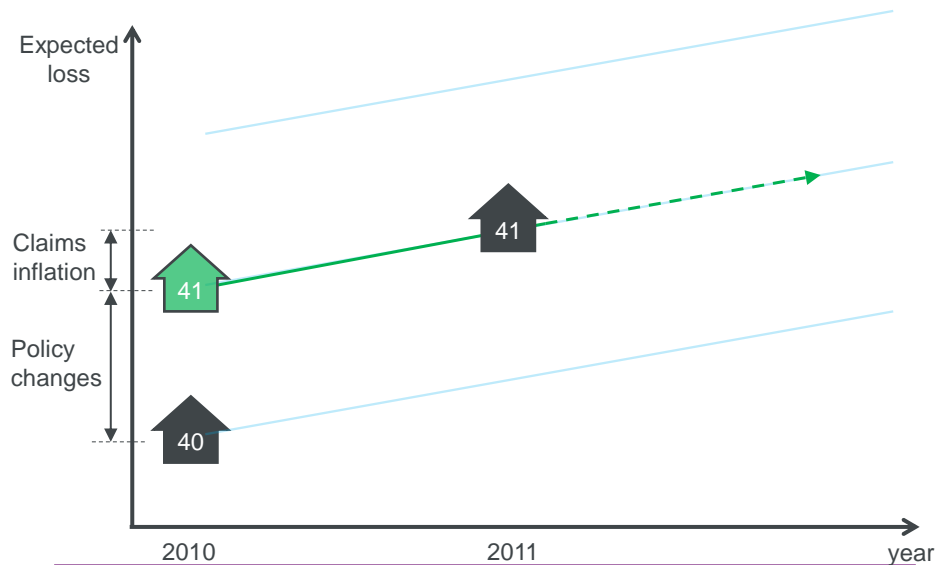
Expected loss



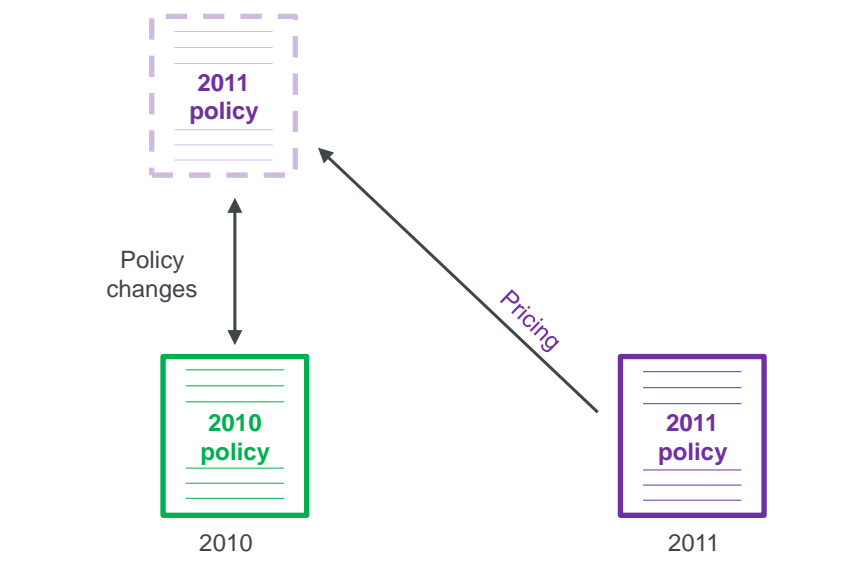
Product: Year built



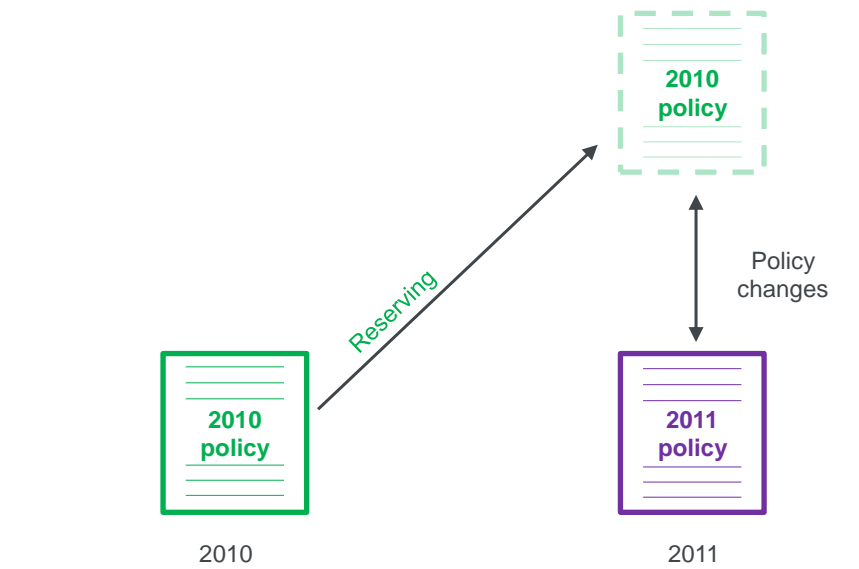
Product: Age



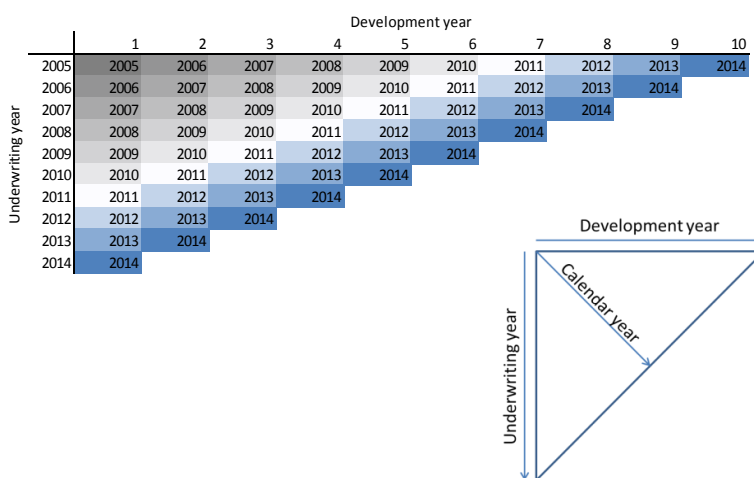
Process specific



Process specific



Different time trends



Not model specific

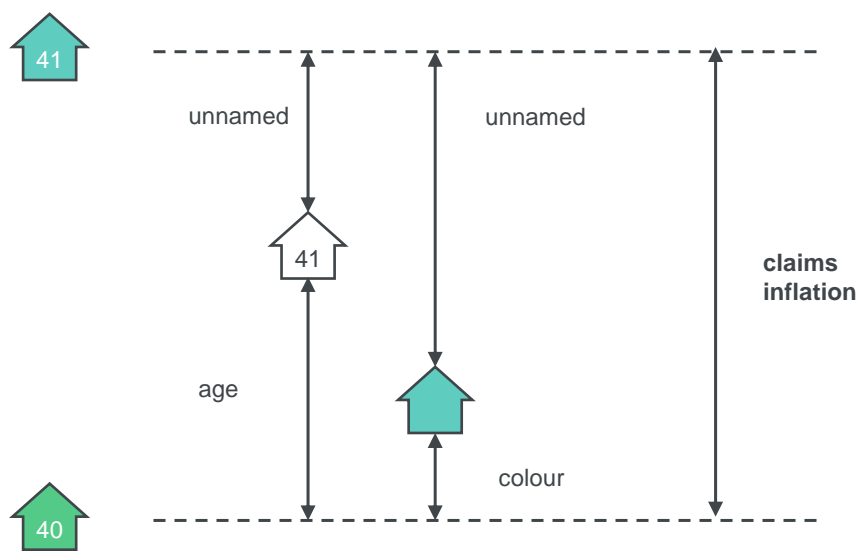
Compute expected loss

- Model 1: **age** predictor
- Model 2: **colour** predictor

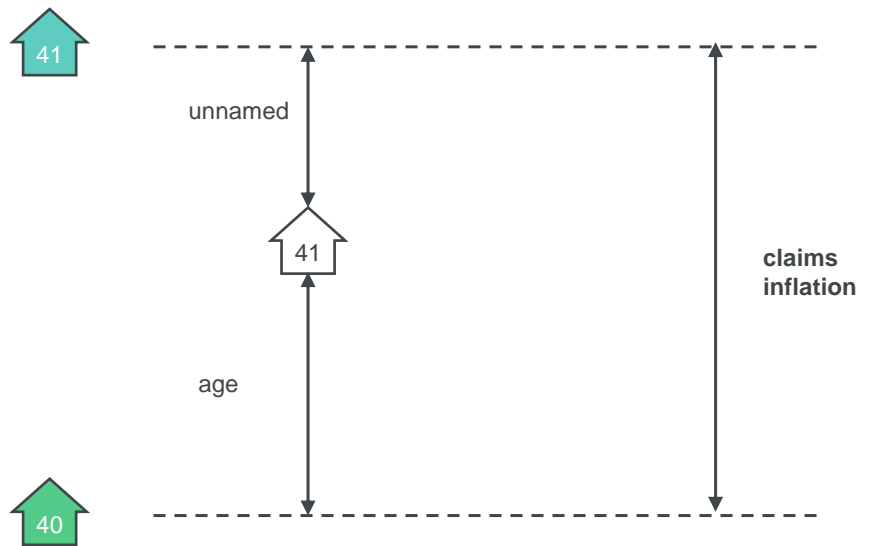
Property policy

- **Same** product
 - **Same** claims inflation
 - **Different** adjustment for unnamed factors
-

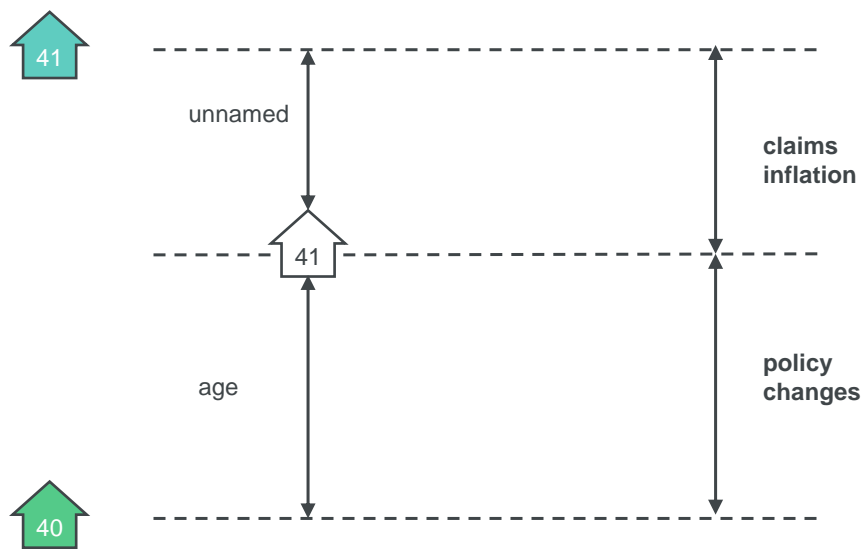
Product: Year built



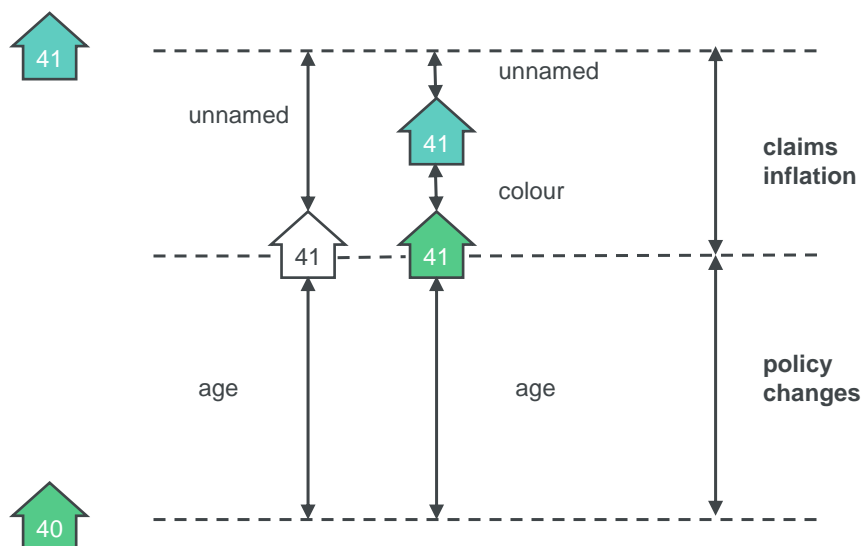
Product: Year built



Product: Age



Change model



Summary

Claims inflation

- Change in **expected ultimate loss** for a given **policy** across time

Features

- Compare identical **product**
- Specific to **product**
- Specific to **process**
- Not **model** specific

www.lloyds.com/claimsinflation



Questions

Comments

The views expressed in this presentation are those of invited contributors and not necessarily those of the IFoA. The IFoA do not endorse any of the views stated, nor any claims or representations made in this presentation and accept no responsibility or liability to any person for loss or damage suffered as a consequence of their placing reliance upon any view, claim or representation made in this presentation.

The information and expressions of opinion contained in this publication are not intended to be a comprehensive study, nor to provide actuarial advice or advice of any nature and should not be treated as a substitute for specific advice concerning individual situations. On no account may any part of this presentation be reproduced without the written permission of the IFoA and author.