



Institute
and Faculty
of Actuaries

GIRO40

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Getting out there: The future for GI reserving actuaries

Susan Dreksler, Jerome Kirk, Seema
Thaper, Mat Wheatley and other
members of the working party

14 October 2013

ertise
ponsorship
Thought leadership
Progress
Community
Sessional Meetings
Education
Working parties
Volunteering
Research
Shaping the future
Networking
Professional support
Enterprise and risk
Learned society
Opportunity
International profile
Journals
Support

Introduction

- The working party
- A bit of reminiscing
- What we are going to talk about today

The working party

Susan Dreksler
Ayuk Akoh-Arrey
Chris Allen
Jeff Courchene
Basit Junaid
Jerome Kirk
Bill Lowe
Shane O'Dea
Jonathan Piper
Meera Shah
Gemma Shaw
David Storman
Seema Thaper
Lucy Thomas
Mat Wheatley
Matthew Wilson

Objectives

- Education/raising awareness
- Helpful insight, suggested approaches including examples
- ...but NOT guidance
- and to have some fun along the way

What we've done

Reserving seminar 2012

GIRO 2012 workshop

CIGI 2012

Sessional round table 2012

Irish Society of Actuaries
discussion session 2012

GIRO 2013 workshop

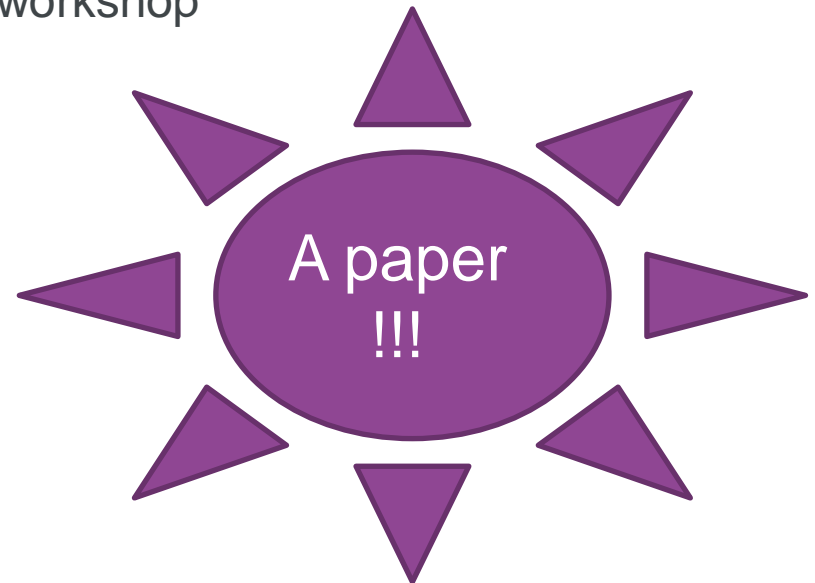
GIRO 2012 plenary

2011 SII TP survey

CIGI 2011

CAS webinar 2012

A Closer Look at SII seminar 2010



Agenda

- Introduction - Sue
- The working party paper - Seema
- The tricky bits - Mat & Jerome
- Over to you
- Incoming! - Jerome & Sue
- Reflection - Sue

The working party paper

- Intention:
 - To help climb that learning curve
 - To fuel debate
 - ...with a view to reaching industry consensus sooner
 - Practical suggestions

The working party paper

- Best estimate: claims and premium provision
- Reinsurance
- Expenses
- ENID (Binary Events)
- Segmentation
- Risk Margin
- Balance sheet considerations
- Validation
- Reporting
- Communication

The tricky bits

- Validation
- Consistency with the balance sheet
- Consistency with the internal model
- Consistency with other reporting bases

Validation of prior year's TP assumptions

Backtest: Actual 2013 Paid vs. Expected from YE2012 analysis

UY	Motor	Property	GL	Marine	Engineering	ΣLOB
1995	8%	10%	90%	82%	77%	53%
1996	80%	7%	55%	71%	39%	51%
1997	47%	41%	39%	51%	5%	37%
1998	69%	43%	4%	96%	33%	49%
1999	19%	66%	21%	90%	92%	58%
2000	3%	25%	86%	67%	55%	47%
2001	76%	51%	3%	7%	24%	32%
2002	17%	10%	69%	98%	42%	47%
2003	34%	51%	32%	32%	37%	37%
2004	38%	54%	5%	62%	3%	33%
2005	23%	34%	87%	52%	95%	58%
2006	99%	92%	49%	93%	52%	77%
2007	51%	51%	80%	5%	28%	43%
2008	15%	84%	90%	86%	58%	67%
2009	96%	16%	59%	42%	75%	58%
2010	8%	17%	80%	34%	87%	45%
2011	87%	93%	78%	25%	97%	76%
2012	23%	43%	80%	68%	96%	62%
UY<CY	48%	51%	66%	55%	68%	57%
2013	61%	68%	94%	62%	98%	98%

Calendar year accrual relative to distributional expectation:

- Only possible if both point estimates & uncertainty are evaluated at prior YE
 - Paid, Incurred, Reported Claims, etc.
- ΣLOB only possible if LOB correlation is evaluated at prior YE
- Additional work required for UY 2013
- Expectations are a weighted average of each method (for point estimates) and model (for uncertainty)
- Allows for early identification (KPI) of where prior assumptions fell short
- Observations should be uniform (0, 1)

Four Candles or Fork 'andles



Consistency requires everyone hearing the same words

You need:

Consistency with the balance sheet

- Many firms will use their GAAP balance sheet as a base and convert to Solvency II
 - and the largest item on the balance sheet are TPs
 - so expect the change in TPs to drive the change
- Sounds easy BUT experience has shown that....
 - finance and actuarial teams might not use common terms
 - finance and actuarial teams might use different assumptions
 - the GAAP balance sheet has already got some finance “adjustments” within it

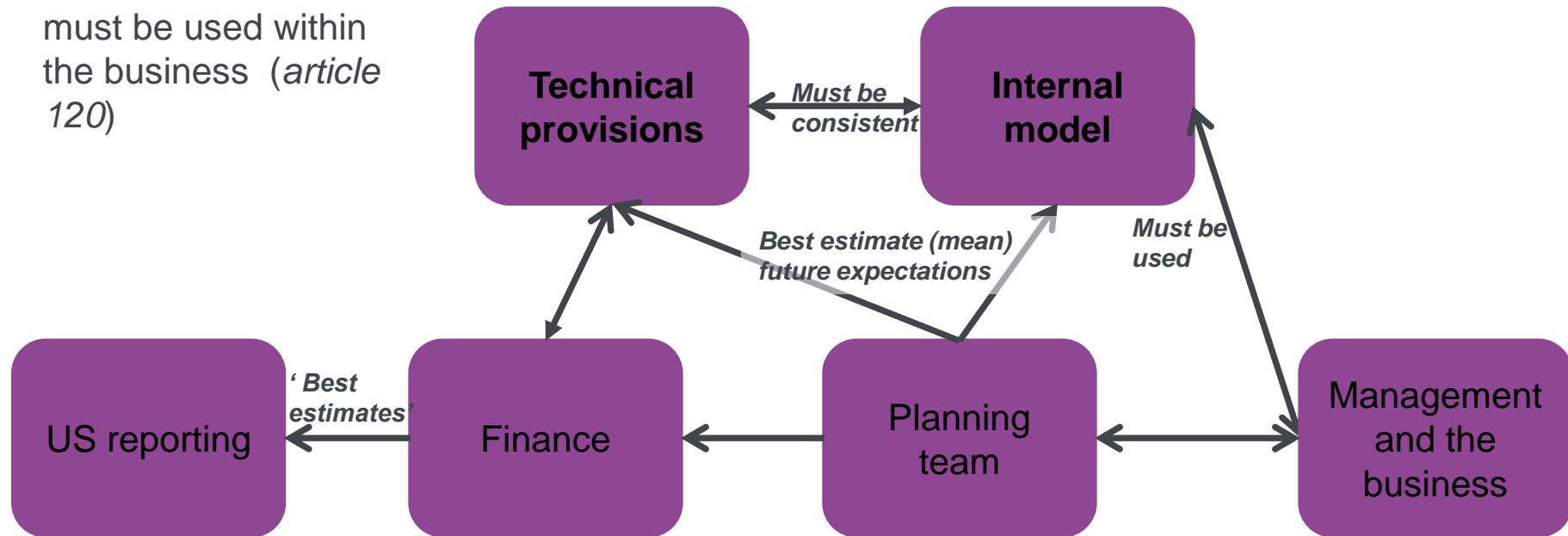
How to avoid becoming insolvent just by “getting the actuaries involved”

- Our top 3 tips on items that can significantly move the balance sheet on transition to a Solvency II basis
- TPs are net of future premiums
 - make sure you know how premium debtors are currently estimated by finance
- Earning patterns can make a difference
 - align the earnings patterns used by teams (both gross and RI)
- Booking reinsurance is really a dark art
 - do you know how finance are going to treat reinsurance contracts that fall outside of TP correspondence? (You need to!)

You also need:

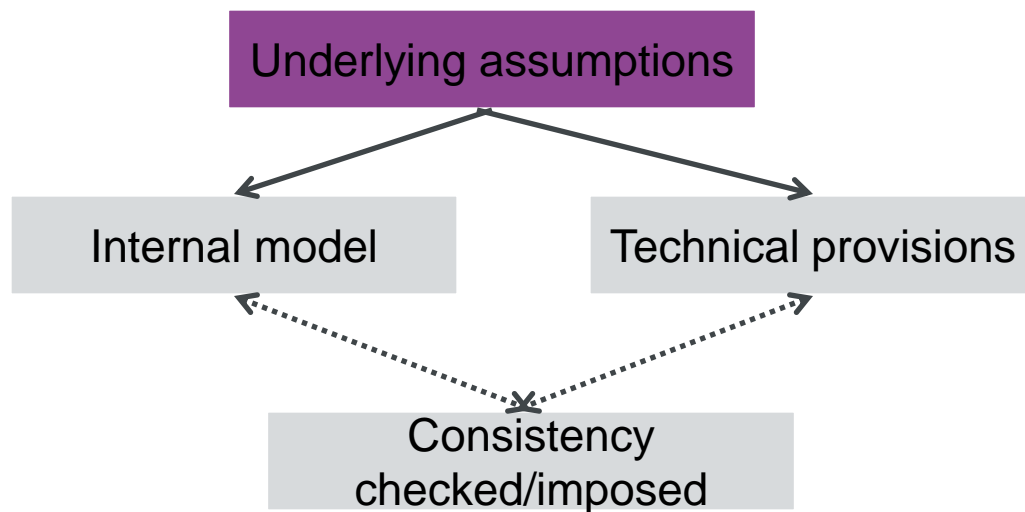
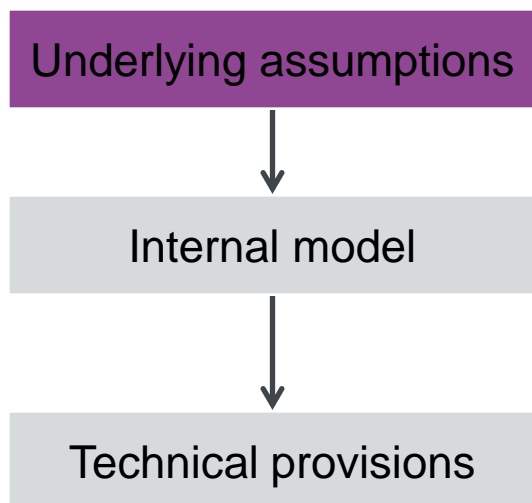
Consistency with the internal model....

- The technical provisions must be consistent with the internal model (*article 121*).
- The internal model must be used within the business (*article 120*)



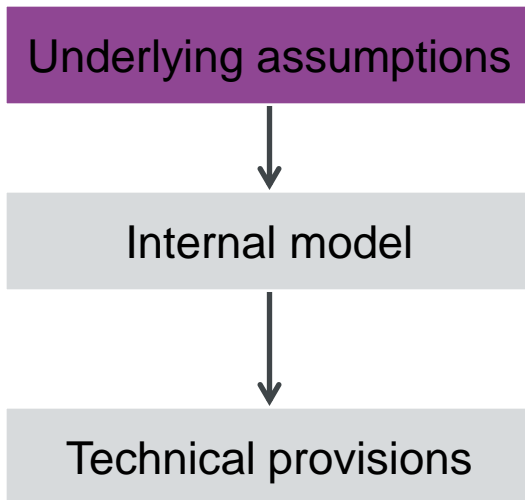
...but reserving and modelling can be at differing granularity....

- One of the areas where the interaction between the technical provisions calculation and the rest of the business is particularly critical is the assumptions around future business profitability and the associated reinsurance recoveries (ie the estimation of net premium provisions).
- Two common approaches are shown below (simplified)

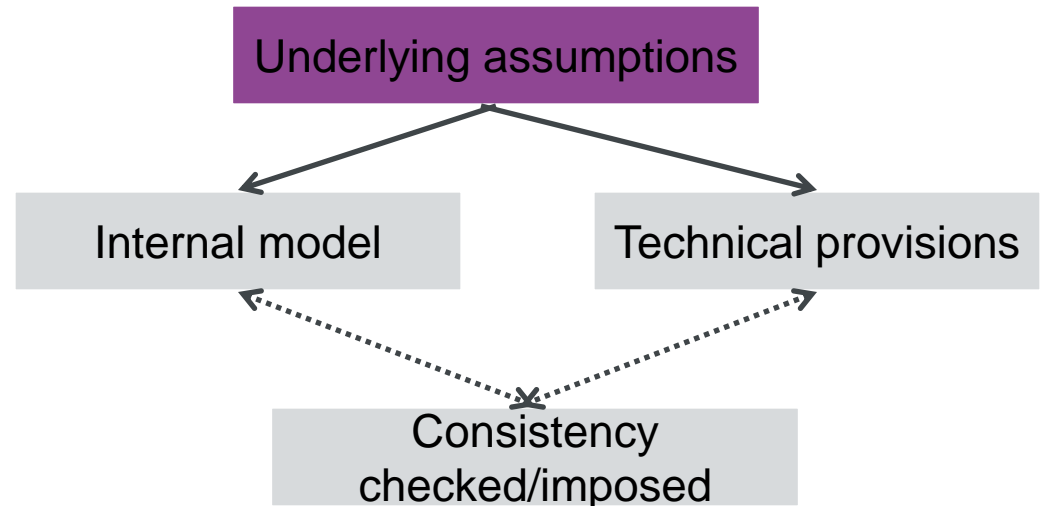


...and in reality there is no “right” way

- Both approaches have strengths and weaknesses

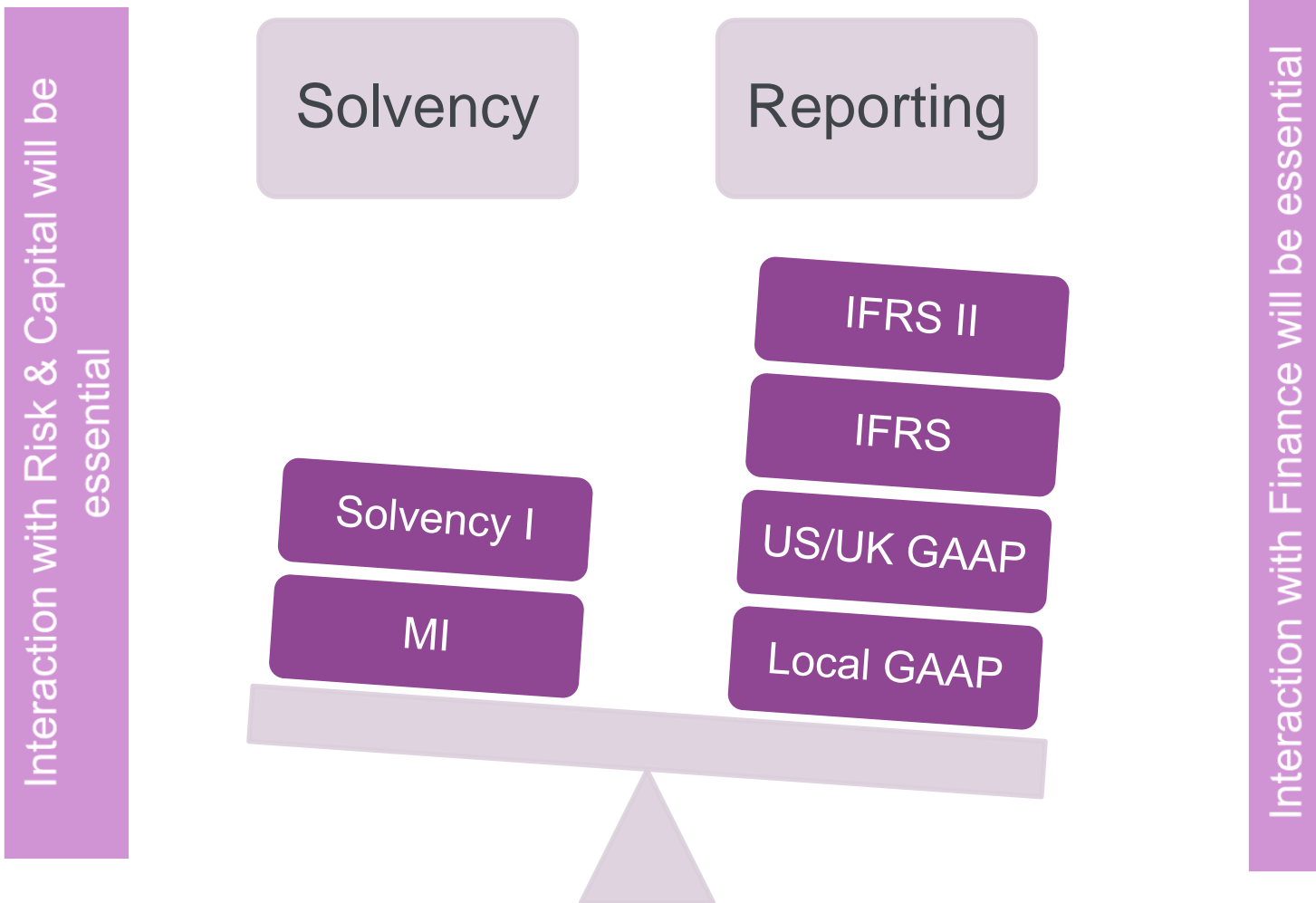


Advantages	Disadvantages
'Guarantees' consistency	Some technical challenges
Simpler process	Unclear ownership of assumptions
True to SII principles	



Advantages	Disadvantages
Parallel working to increase speed	Can lead to inconsistent estimates and implicit assumptions
Simpler process	Extra effort required to demonstrate consistency
Similar to current process	

And it gets even worse, you also need: Consistency with other reporting bases



Some possible solutions

Option A

- Talk to all parties
- Don't be shy to check understanding / get clarity
- Remember we probably sound odd to "them"
- Do some dry runs
- Don't be surprised if it doesn't work first time

Option B

Stress Reduction Kit



Directions:

1. Place kit on FIRM surface.
2. Follow directions in circle of kit.
3. Repeat step 2 as necessary, or until unconscious.
4. If unconscious, cease stress reduction activity.

Over to you...



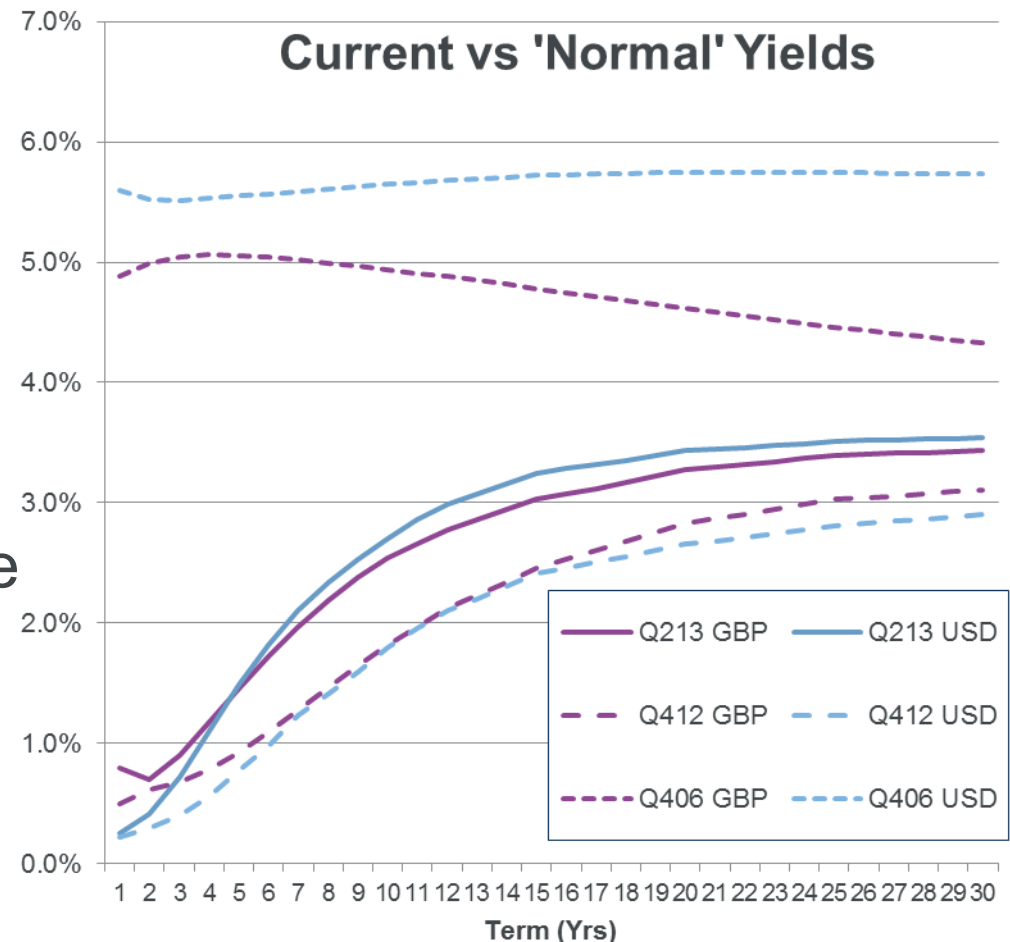
Incoming!

- Higher interest rates
- Actuarial Function
- IFRS 4 Phase II

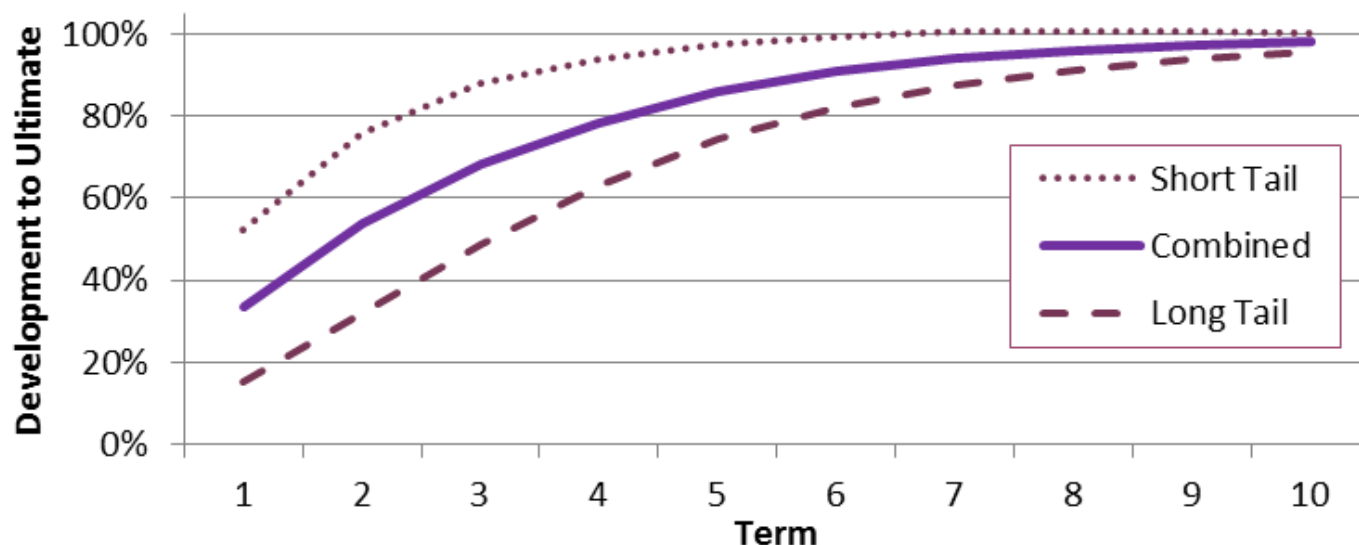
Yield curves are expected to increase *

[* Note: this is not investment advice]

- Currently in a period of very low interest rates...
 - ...although have seen an increase since year-end
- Can also compare to a more 'normal' yield curve environment
 - for illustration we have selected 2006



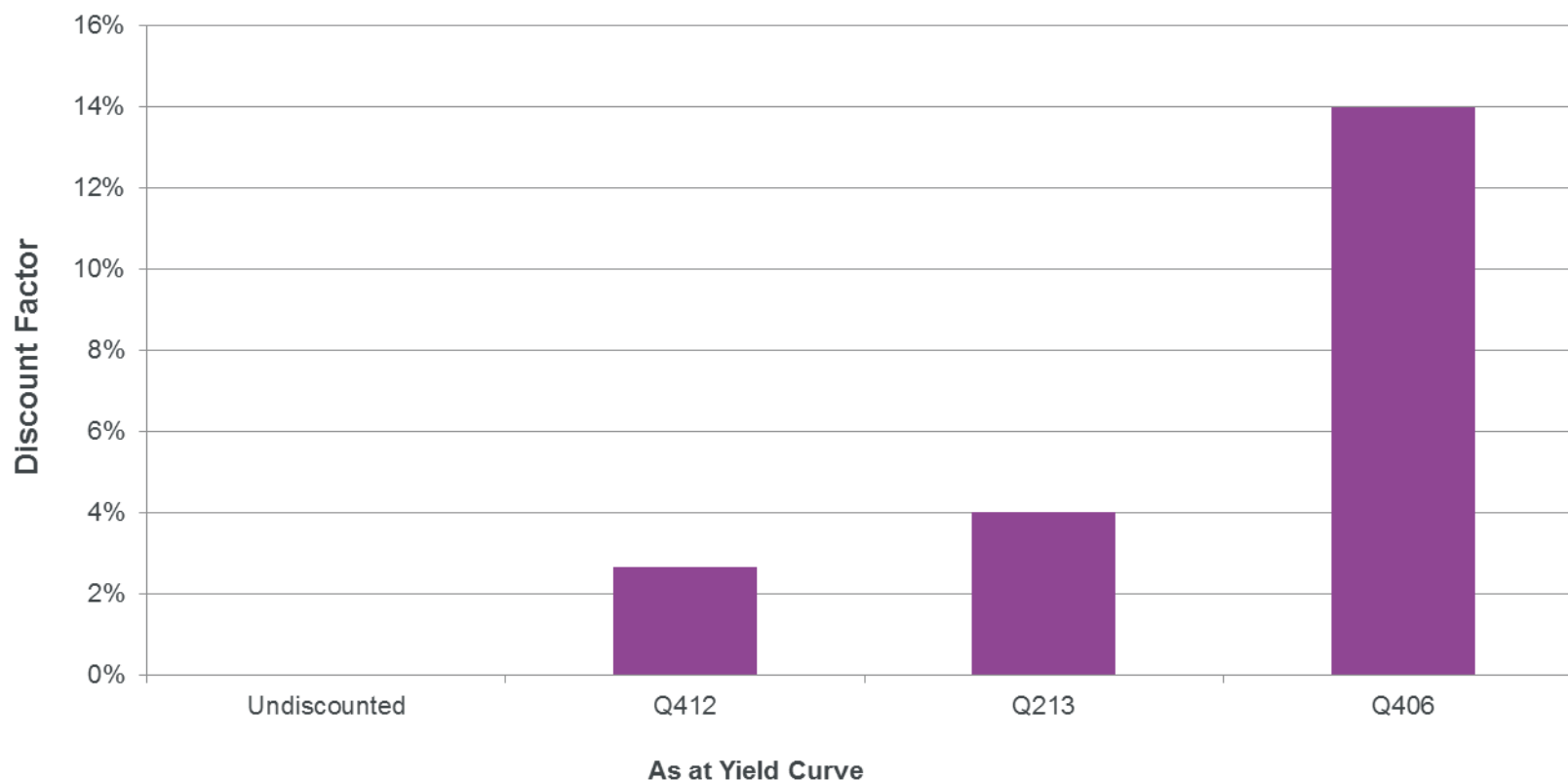
Can use a simple example to illustrate the impact of interest rate moves on the BE



Comparing discounted BEs using different yield curves											
£000	Total	1	2	3	4	5	6	7	8	9	10+
Undiscounted	1,000	336	202	144	102	72	50	33	19	12	29
Q412	973	335	200	142	99	69	47	31	17	11	23
Q213	960	334	200	141	97	67	45	29	16	10	21
Q406	860	319	182	124	83	56	36	23	12	8	16

And it is easy to see that TPs could drop by 10% over the coming years

Impact of Discounting



Actuarial function

- EIOPA published its “Guidelines for the preparation of SII” on 27 September to apply from 1 January 2014
- No specific phasing in requirements for Governance: it will be for national supervisors to determine – they need to respond with a plan by year-end
- Specific requirements for the Actuarial Function
- ...including around independence, the need to report any material deviations in A vs E and more
- Still uncertainty over structure, underwriting and R/I opinion, reporting

IFRS 4 Phase II

- Why should we care?
- The good news
- The not-so-good news

IFRS changes

Why should we care?

- You will be responsible for reserving on the new basis
- UK GAAP is likely to merge with IFRS eventually
- It is NOT the same as SII
- Cost: systems development, process design
- You have an opportunity to influence things now

A stitch in time....

IFRS proposals: The good news for GI

- Revenue statement is on an earned basis
- but the life companies *hate* this
- Similar to SII (e.g. discounted best estimate, risk margin)
- but with greater flexibility (e.g. selection of discount rates, approach to risk margin)
- Option to use something similar to the UPR for contracts of one year or less (PAA approach)

Measurement models for GI

	Current IFRS/GAAP	BBA throughout	PAA*	PAA and undiscounted incurred*
Unexpired risk	UPR less DAC	Contractual Service Margin Risk adjustment Discounting Best estimate of fulfilment cash flows	Premium (less acquisition costs) unearned	Premium (less acquisition costs) unearned
Expired risk	<ul style="list-style-type: none"> Undiscounted reserves for past claims (including IBNR) 	Risk adjustment Discounting Best estimate of fulfilment cash flows	Risk adjustment Discounting Best estimate of fulfilment cash flows	Risk adjustment Best estimate of fulfilment cash flows

* Specific condition must be met


IFRS proposals: The not-so-good

- Increased complexity, data demands
 - Other Comprehensive Income
 - Purpose: to remove volatility from the P&L due to changes in discount rate
 - Need to store yield curve as at contract inception – will be particularly challenging for latent claims
 - Contractual Service Margin (for the BBA model)
 - Purpose: to remove day one gain
- Lack of clarity over whether PAA will be possible for contracts of more than one year
- Potential increase in P&L volatility

Reflection

- We are living in a more complicated world
-with a lot more interaction
- There are potentially more tricky things around the corner
- Good communication will be essential
- The challenge is to communicate more complicated concepts to a wider and potentially less sophisticated audience

Reserving actuaries will have to start talking to real people going forwards!



Hard working, educated, intelligent, precise and only slightly geeky insurance professionals seeks other insurance professionals to develop long term relationships. Good communication essential.



Questions



Comments

Expressions of individual views by members of the Institute and Faculty of Actuaries and its staff are encouraged.

The views expressed in this presentation are those of the presenters.