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## Undertaking Specific Parameters: Worth the hassle?

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### Agenda

- Introduction
- Interpreting the guidance
- Collecting the data
- Adjusting the data
- Justifying and validating the results
- Managing the business while using Undertaking Specific Parameters (“USPs”)



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## Introduction

USPs can have a significant benefit if you can meet the requirements.

- Main regulatory and supervisory texts
  - Commission Delegated Regulation (EU) 2015/35 articles 218-220 & Annex XVII, published by the European Commission in January 2015 (standardised methods, data requirements)
  - Commission Implementing Regulation (EU) 2015/498 for implementing technical standards with regard to the supervisory approval procedure to use undertaking-specific parameters published by EC on 24 March 2015
  - PRA published USP checklist (SI Reg 47) for application  
<https://www.bankofengland.co.uk/prudential-regulation/authorisations/solvency-ii-approvals>



## Introduction

- Subject to approval by the supervisory authorities, the following Standard Formula parameters can be replaced:
  - The standard deviation for non-life premium risk –  $\sigma^{prem}_{lob,U}$
  - The standard deviation for non-life gross premium risk –  $\sigma^{prem, gross}_{lob,U}$
  - The adjustment factor for non-proportional reinsurance –  $NP_{lob,U}$
  - The standard deviation for non-life net reserve risk –  $\sigma^{res}_{lob,U}$
- Credibility based approach between market parameters and USPs

Time Length $t$	5	6	7	8	9	10	11	12	13	14	>14
Credibility Factor $c$	34%	43%	51%	59%	67%	74%	81%	87%	92%	96%	100%
Credibility Factor $c$	34%	51%	67%	81%	92%	100%	100%	100%	100%	100%	100%

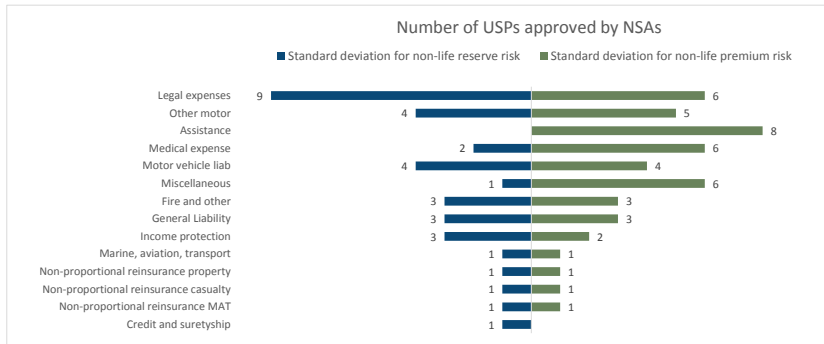
For Motor Liability, Third Party Liability, Credit and Suretyship

For all other lines



## Introduction

### USP approvals as at 30 October 2017 across the EU



- Of which five are in the UK and Gibraltar
- NSAs have estimated that a further 15 undertakings will have their USPs approved in the near future across Europe.

Source: [http://eiopa.europa.eu/Publications/Reports/EIOPA-BoS-17-280\\_Final\\_report\\_on\\_First\\_set\\_of\\_Advice\\_on\\_SII\\_DR\\_Review.pdf](http://eiopa.europa.eu/Publications/Reports/EIOPA-BoS-17-280_Final_report_on_First_set_of_Advice_on_SII_DR_Review.pdf)



## Introduction

- Standard methods are prescribed. Therefore, the challenge is data.
- Data Quality
  - Complete
  - Accurate
  - Appropriate
- Fit for purpose
  - Pass required statistical tests
- Documentation



## Interpreting the guidance

- Reference: Delegated Act – Annex XVII:
  - Payments made and **best estimates** of the provision for claims outstanding in segment “s” after the first development year of the accident year of those claims (aggregated losses)
  - The data are **representative for the premium risk** that the (re)insurance undertaking is **exposed to during the following 12 months**
  - The aggregated losses are adjusted for **catastrophe claims**
  - The aggregated losses include the **expenses incurred in servicing insurance obligations**
  - The data are adjusted for amounts recoverable from reinsurance contracts and special purpose vehicles which are consistent with the **reinsurance contracts and special purpose vehicles that are in place to provide cover for the following twelve months**



## Collecting the data

- Data Quality
  - Already addressed as part of Technical Provisions requirements
  - If not → Data Policy, Data Directory, Data Workflow, etc.
- Possible significant challenges:
  - Premium Risk: Collating historical best estimate after 1 year
  - Reserve Risk: Getting triangulated data net of reinsurance
  - Gathering historical expense information



## Adjusting the data

- Inflation – LoB with volatile historical inflation
- Rate changes and the underlying underwriting cycle
- Reinsurance – as-if adjustments
- Catastrophe – weather events, economic crisis?
- Portfolio changes
  - Exclude legacy portfolio or portfolio in run-off
  - Account for change in mix of business (e.g. within Miscellaneous)
    - Rescaling approach
    - HRGs – credibility theory
- Adjustments likely to be challenged – documented



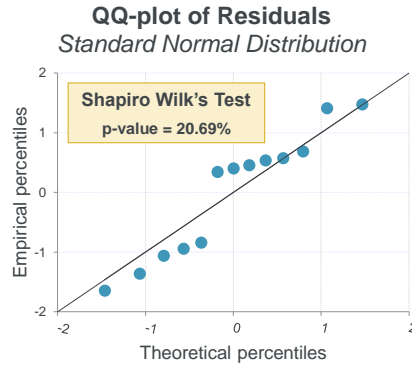
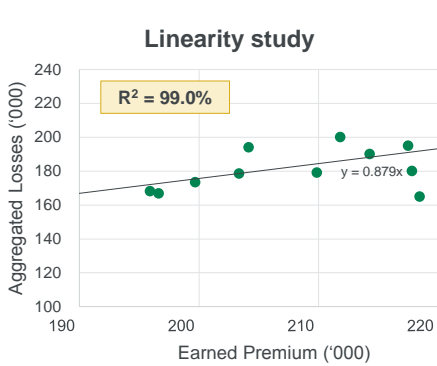
## Justifying the use (or not) of USPs

- No cherry-picking
- Risk profile different (e.g. Miscellaneous never a good fit)
- SCR with USPs give results closer to your own economic capital assessment
- Materiality of LoB or risk
- Reserve risk, one method is more accurate than the other
- Data not fit for purpose
- Standard formula appropriateness report shared with the regulator



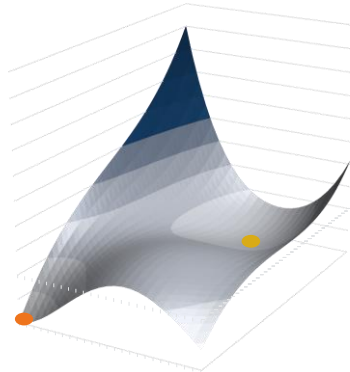
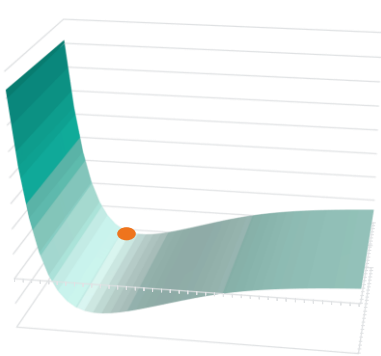
## Validating the Results

- Length of historical data
- Testing the method assumptions (as set out in Annex XVII of Commission Delegated Regulation)



## Validating the Results

- Global optimum

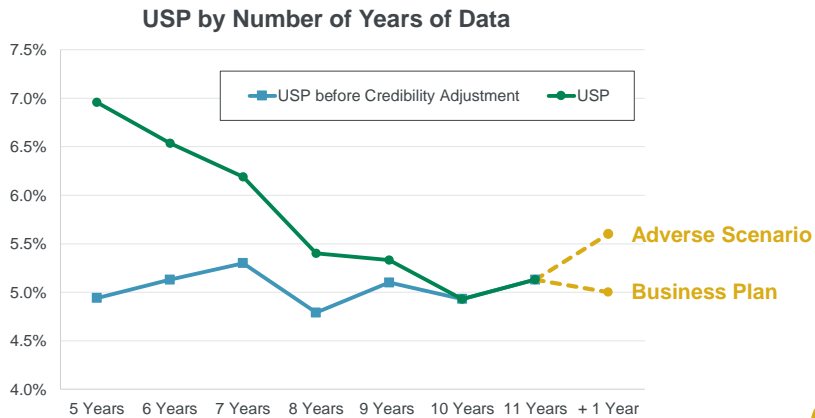


## Validating the Results

- Consistency of data used with requirements (materiality of limitations or deviations from requirements)
- USP calculation policy
- Sensitivity analysis:
  - With/without adjustments
  - Addition of one year (from business plan or an extreme scenario)
- Back-test actual observations against results implied by the prescribed methods

## Validating the Results

Sensitivity analysis with respect to years of data used



## Known challenges from Regulators

- Demonstrate that one Reserve Risk method is more accurate than the other using the definition (if not able to demonstrate it, take the maximum result of the two methods)
- Adjustments to data, e.g. for catastrophe related claims. There are some inconsistencies between regulators about the definition of what can be considered as catastrophe claims
- Exhaustive documentation and evidence that data quality requirements have been met
- Documentation about expert judgements used
- Governance and story telling regarding the application



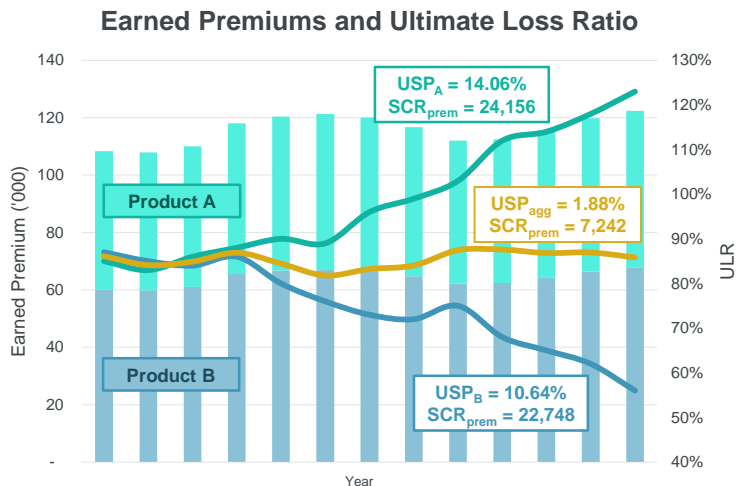
## Managing the business while using USPs

- Acquiring/writing new business
  - External data
  - Possibly obtain historical data when buying renewal rights
- Discontinuing/Divesting portfolios
- Brexit (can possibly be overcome with internal QS reinsurance)
- USPs are not fixed year-on-year so volume effect is not the only driver for change in SCR for premium and reserve risk – should be tested as part of the ORSA





## Case study: Offsetting segments



## Conclusion

- Application less burdensome than for IMAP
- Challenges from Regulators are “manageable” although sometimes inconsistencies in their approach
- Extra level of consideration in taking business decisions, relative to the Standard Formula
- Second wave of applications observed after companies have settled down with Solvency II – now try to reduce SCR

USPs can have a significant benefit if you can meet the requirements.

## Questions

## Comments

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