



BANK OF ENGLAND
PRUDENTIAL REGULATION
AUTHORITY

Internal Model Documentation

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Agenda

1. Context
2. Three principles of good documentation
3. Accessibility
4. Evidence
5. Quality Control
6. Questions



1. Context

- Background on documentation in the internal model approval process
- PRA December 2013 – Documentation in IMAP
 - Sets out the principles of good documentation and anonymised examples from PRA review work
 - <http://www.bankofengland.co.uk/pr/Documents/solvency2/documentationimap.pdf>
 - Where necessary, materials in this presentation are quoted directly from this document for clarity.



Documentation in the internal model approval process

As part of our commitment to giving firms feedback, we set out in this document the principles of good documentation and provide anonymised examples from our review work to date. The examples are not intended to be used as templates, but rather to illustrate the principles for creating and submitting good quality documentation for IMAP and the IMAP components of ICAG+ reviews. Consequently, our intention is that firms are able to submit documentation to the appropriate standard and that we are able to review it and provide feedback in a way that is mutually efficient, and enables us to draw review areas to a close in a timely fashion. We remind firms that it is their responsibility to meet the requirements of Solvency II and that we will rely, in large part, on the submitted documents and supporting information in assessing whether the tests and standards have been met.

In our work with firms – as part of IMAP and continuing supervision in the current regime – we have identified three principles of good documentation: i) accessibility; ii) evidence; and iii) quality control. We explain the principles and illustrate them with examples.

Principle 1: Accessibility

A document should be written in a way that it can be clearly understood by the intended audience. Where technical terms or shorthand are used, these should be explained and then used consistently throughout all documentation. A document should summarise its contents clearly, systematically covering all relevant subjects, dealing with each subject at an appropriate level of detail and avoiding unnecessary repetition. It is helpful to have a clear separation of policy, methodology and results.

Where the document is intended for a technical reader, separate sections with further information may be helpful, e.g. with worked examples, checklists and spreadsheet references. Ideally, supporting material should only be provided once and cross-referenced as needed.

Accessibility may be improved by having different levels of documentation. For example:

- executive-level summaries that include key features, assessments, results etc;
- model reviewer level supporting methodology and assumptions, and analysis of results; and
- model user level: technical detail to support replication of the model.

We have found it useful for firms to submit i) and ii) for our review, and for iii) to be available on request.

Examples

Signposting

A clear executive summary with effective signposting of contents can allow the reader to understand the main points being made, and to locate the evidence efficiently.

In one good example, the firm's credit module summary quantified the headline impact on capital, then broke this down into its drivers, and referred the reader to the appropriate sections on drivers. These sections in turn were summarised by flowcharts to assist the reader in understanding the complex process for constructing the drivers.

2. Three principles of good documentation

1. Accessibility
2. Evidence
3. Quality control



3. Accessibility

- “A document should be written in a way that it can be clearly understood by the intended audience”
- Have you considered the audience when planning documentation? You may want to think about these issues:
 - If for the regulator: will your document explain which Solvency II requirements are fulfilled by the proposed approach?
 - If for senior management: are the issues summarised in a clear but non-technical way? Technical *concepts* are sometimes necessary, but technical *language* and especially *jargon* may not be appropriate.
 - Even when writing for a technical audience: Is there relevant background and context? One kind of specialist (e.g. in market risk) may not fully understand the technical details of another kind of specialism (e.g. credit risk).



3a. Accessibility: Organisation

- Consider ways that the subject can be divided effectively
 - Signposting involves planning the document with the key points in mind. Providing clearly labelled sections can help the reader.
 - Consider adding appropriate summaries, in the introduction, and at the head of each section (and even sub-section).
- For example, you could consider setting up sections in a style similar to the following:
 - *This documentation deals with A, B and C*
 - *(Section A) Section A deals with A1, A2 and A3*
 - *Subsection A1 deals with ...*

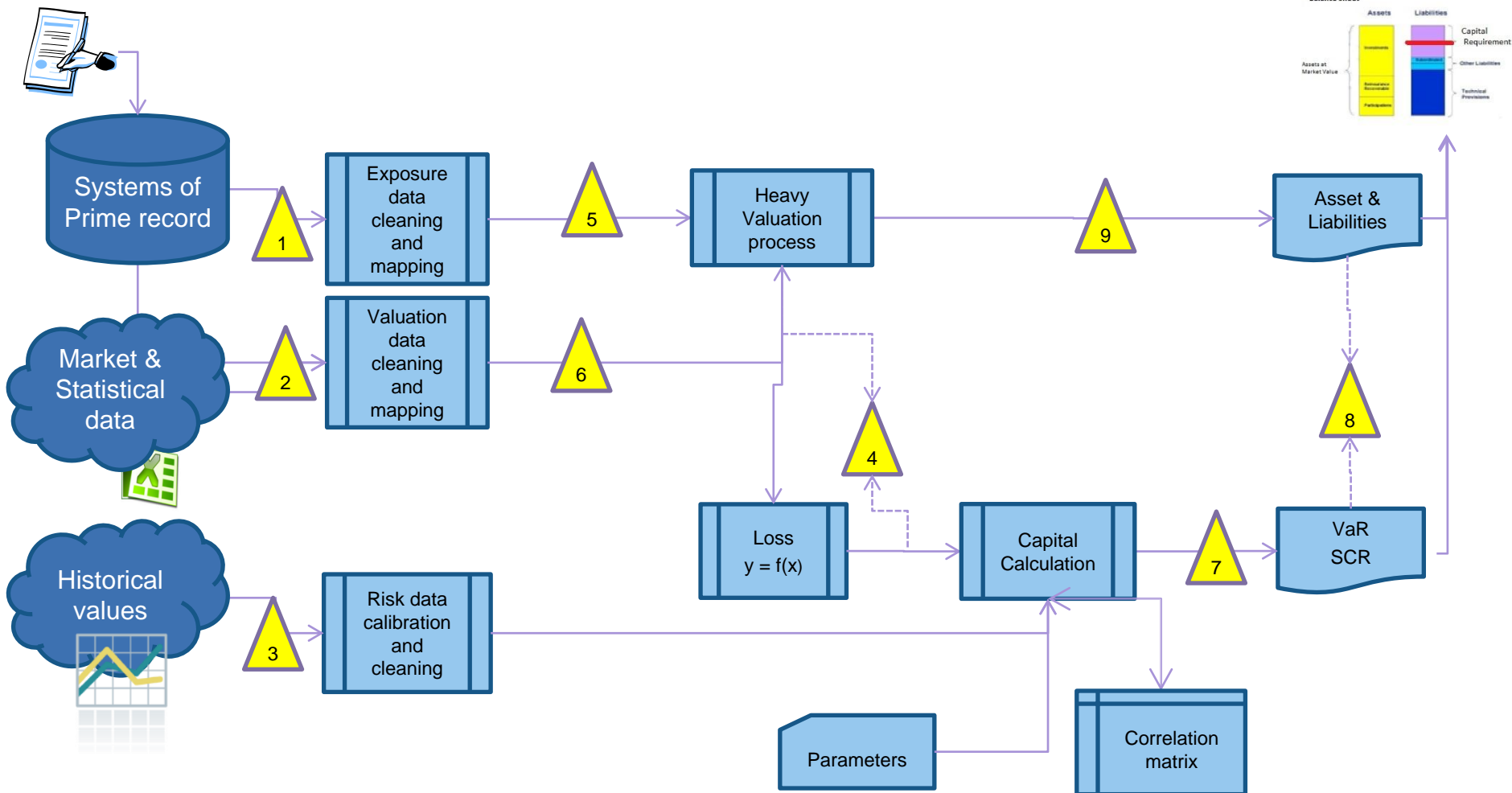


3b. Accessibility: Diagrams

- “Reviews can be more effective and efficient if firms provide a clear picture of how the documentation relates to the components of the internal model”.
- Probably the most difficult thing to explain is the overall structure of the internal model, particularly how its different components relate to one another.
- “In one good example, the firm summarised its model structure with a diagram.
 - Each component of the model was documented in turn and the firm highlighted which areas they were covering in each document”.



3c. Accessibility: An example of data flow into the balance sheet & capital model



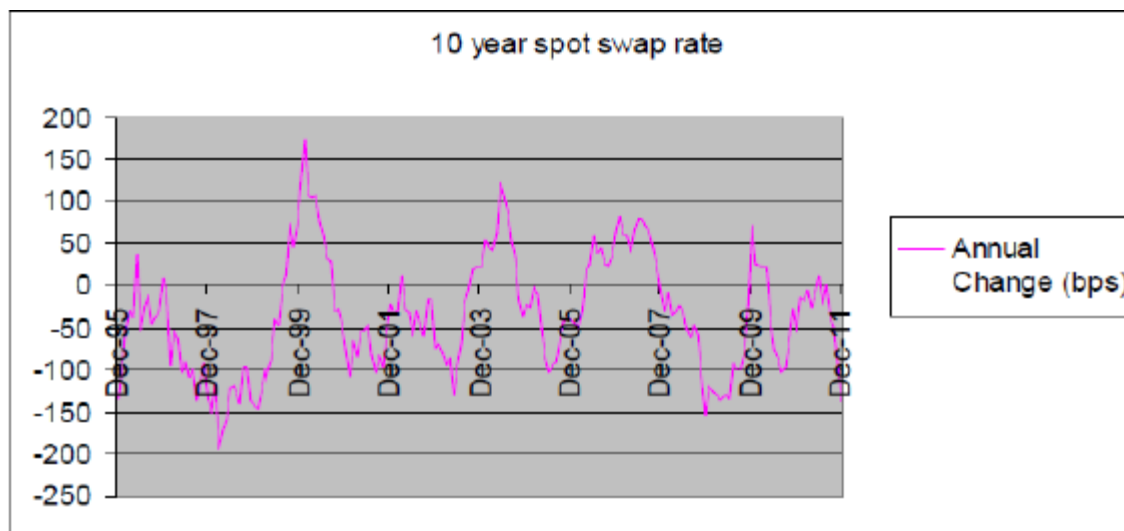
4. Evidence

- “Alongside the importance of the accessibility of documentation is the need to include the evidence to support the conclusions”.
 - “From our reviews to date, we have found a useful rule of thumb that suggests better documentation tends to contain around one-third about ‘what has been done’ and two-thirds about ‘why and how has it been done’”.
- Evidence for ‘expert judgments’
 - “It is not acceptable to state that a decision has been taken “by expert judgment” without further explanation”.
 - “Where there are expert judgments, particularly where these override empirical data, a firm must justify the decision and explain the consequences – especially where this involves a material risk for the firm”.
 - Is there evidence that the expert is indeed knowledgeable about the subject?



4a. Evidence: Pictures are not always worth a thousand words

- “Graphs (as well as other forms of pictorial evidence) should not be presented out of context and should only be used to illustrate what has already been stated in words.
 - a firm included a section entitled “Analysis of severe observations” containing 12 graphs with no commentary”.



4b. Evidence: Where does the data come from and what is it used for?

- “One firm provided us with a list of data sources that were available for each area of the model. These included:
 - Cat Risk (Cat information from RMS, Reinsurance information on Cat treaties).
 - Market Risk (Towers Watson ESG, EIOPA yield curves).
 - Credit Risk (Reinsurer information (e.g. credit ratings, etc.), S&P transition tables, Broker balances template)”.
- However:
 - “there was little explanation as to how this data was used in the internal model.
 - Some documents contained quantitative results or key statistics and were provided in isolation: without any commentary on the purpose, use and relevance of data or quantitative results”.



5. Quality control

- “Good documentation should evidence sound quality control”.
 - “Evidence of an appropriate level of challenge and sign-off”.
 - “Better documentation has tended to provide evidence of sound version control”.
 - This includes date information to evidence whether the document is current, and can help to avoid documentation that is out-of-date and possibly obsolete, in light of model changes, being submitted for review.



6. Questions?



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