Institute
and Faculty
of Actuaries

Business Implications of Using the Standard Formula

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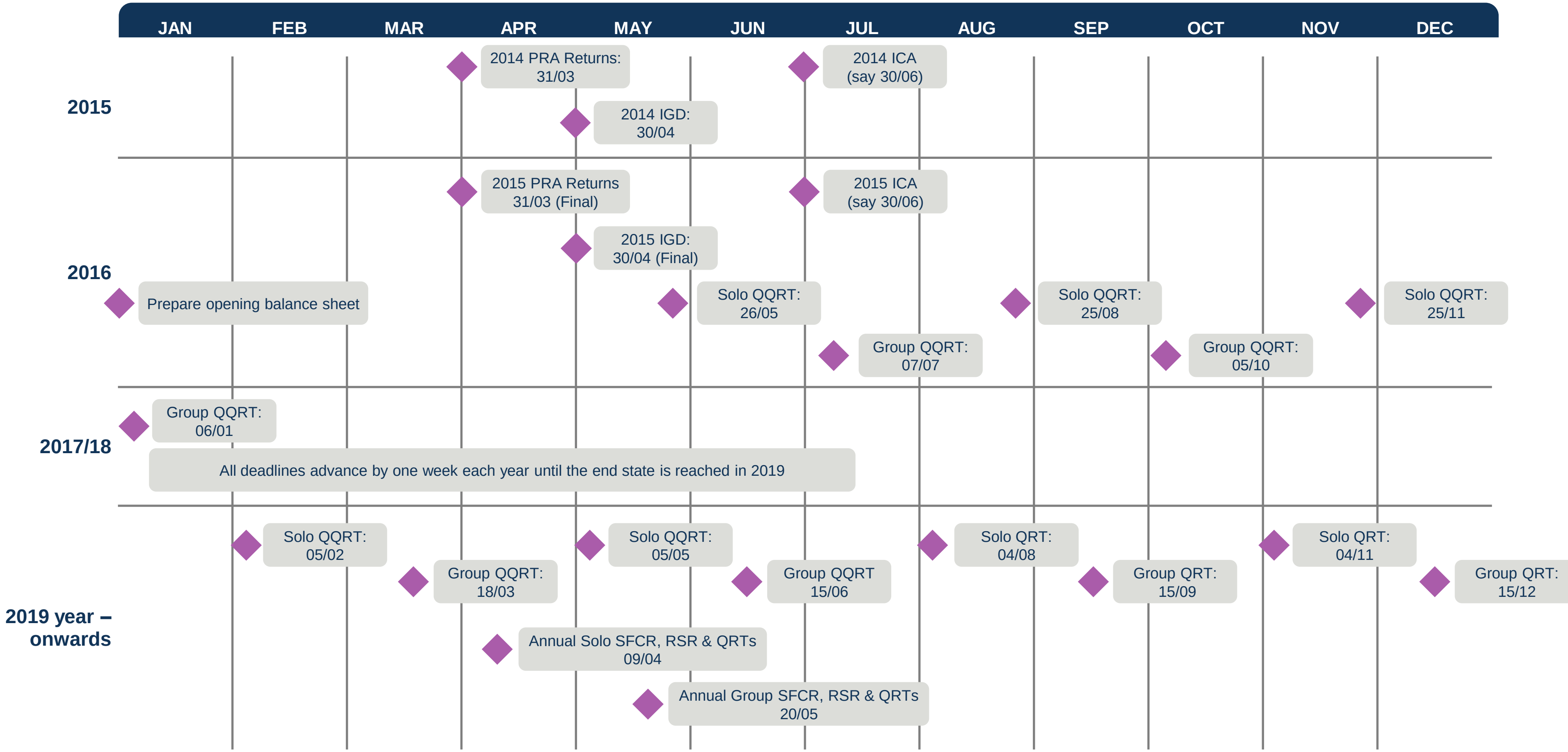
Highlights of the Life Conference
March 2015
(previously presented at the IFoA Life Conference 11 November 2014)

Agenda

- What do you actually have to do?
- Key messages from the PRA conference / letters
- Complex areas of the calculations
- Transitioning from ICA
- Lessons learnt from dry run activities
- Activities to speed up reporting
- Implications of adopting the Standard Formula, including on Risk Management

What do you actually have to do?

Reporting timelines (based on a company with 31 December year-end)



What do you actually have to do?

And it is not just reporting…..

- This is a lot of work, in particular 2016 is going to be very difficult
- Firms that meet the preparatory thresholds have additional requirements – these actually help them to get ready for 2016

The volume of tasks mean that preparation is a critical success factor

Key messages from PRA Conference / Letters

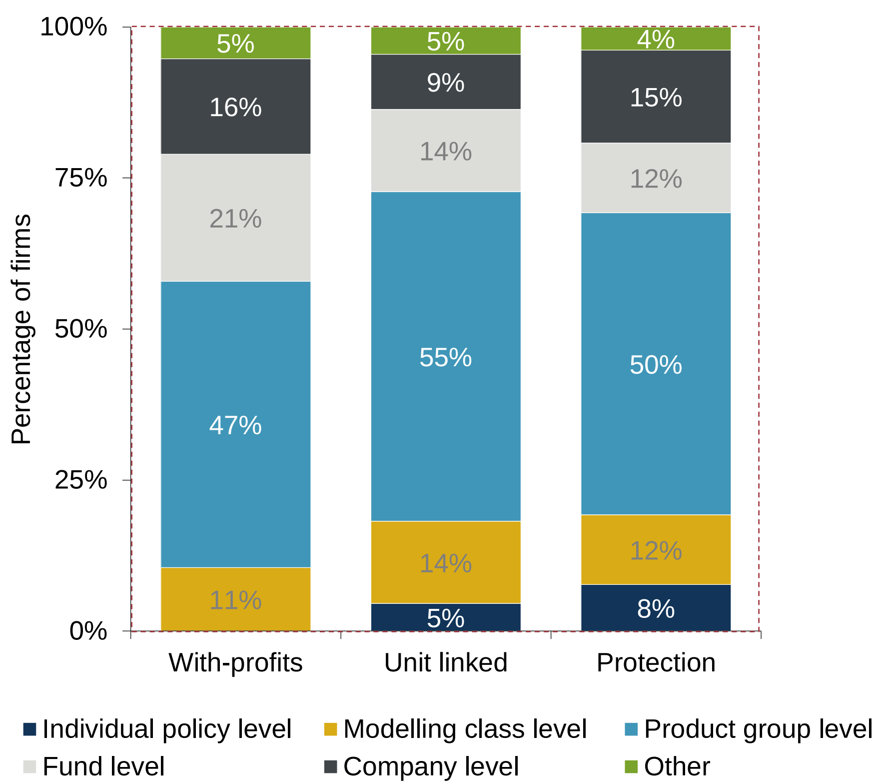
- Standard Formula should fit a significant proportion of UK firms. The PRA does not promote or encourage the use of an internal model where the standard formula is a good fit
- Lots of moving parts on the balance sheet, simplistic comparison to ICA is not the full picture. The PRA does not expect large capital inflows or outflows to result from Solvency II implementation
- The Directive requires firms to identify areas where business materially deviates from the standard formula SCR assumptions.
- The ORSA allows you to demonstrate assessment of appropriateness
- PRA will review all firms for Standard Formula appropriateness before Solvency II implementation
- Work with the pilot firms has continued and individual feedback will be provided in Q2. If there appears to be thematic issues arising, PRA will provide general guidance.

Complex areas of the calculations

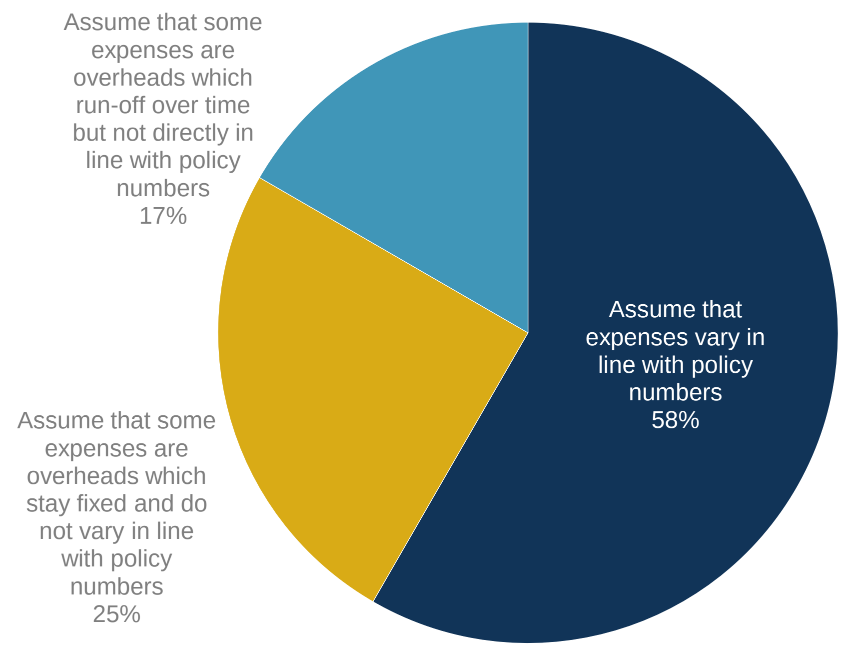
- Matching adjustment
- Risk Margin
- Splitting WP liabilities into guaranteed and discretionary liabilities
- Management actions that change discretionary benefits cannot be stressed
- Lapse stress
- Counterparty default (area where Standard Formula is more sophisticated than many ICAs)
- Deferred tax
- Lookthrough (both Standard Formula calculation and Pillar 3 disclosures)
- Equity stress transitional
- Pension Scheme
- Operational Risk (what do you do if the Standard Formula result is not consistent with your ICA?)
- Non-linearity

Complex areas – Mass lapse stress calculation

At what level do you determine which direction is the most onerous policyholder behaviour stress?



What assumption do you make about expenses in your mass lapse stress?



Source: KPMG Technical Practices Survey 2014.

Other questions

- Where to use simplifications
- Have you got the messaging in place on any results / disclosures?
- Have you done enough analysis?
- How do you validate the balance sheet and SCR
- The PRA may use the QRTs to calculate ratios etc and identify outliers. **Will you know how to respond to any questions?**
- PRA has been using s166 investigations on large firms. Will this also be used on smaller firms?

Should Internal Model Standards Apply?

- Many of the Solvency II rules are written for Internal Model firms, so where does this leave Standard Formula firms?

Validation

Want to make sure your models are working appropriately and that you understand them. This means “validating” the balance sheet and SCR. PRA will write to all Internal Model firms and selected Standard Formula firms setting out expectations of a full balance sheet review (assets and liabilities, but not Risk Margin). What will smaller Standard Formula firms do?

Profit & Loss Attribution

Do some sort of analysis to get comfort over closing position

Use Test

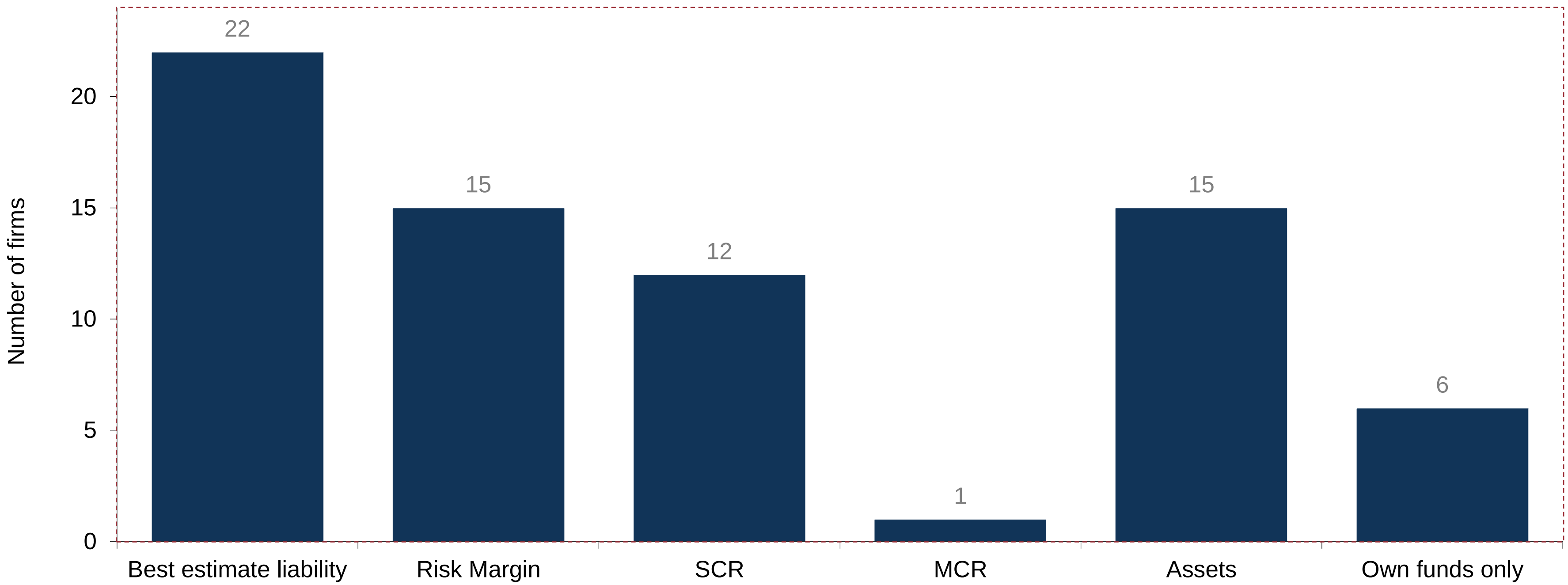
Many Standard Formula firms have something equivalent: model embedding, business use etc

Model Documentation

Many of the rules are best practice

Profit & Loss Attribution

Which items will your Profit & Loss Attribution cover?



Source: KPMG Technical Practices Survey 2014.

Transitioning from ICA

What was your experience of completing the PRA's 22 Aug submission?

Did you have to use any approximations in the Solvency II numbers?

Did you reconcile between Solvency II and ICA?

Where were the big differences between Solvency II and ICA?

How quick was it?

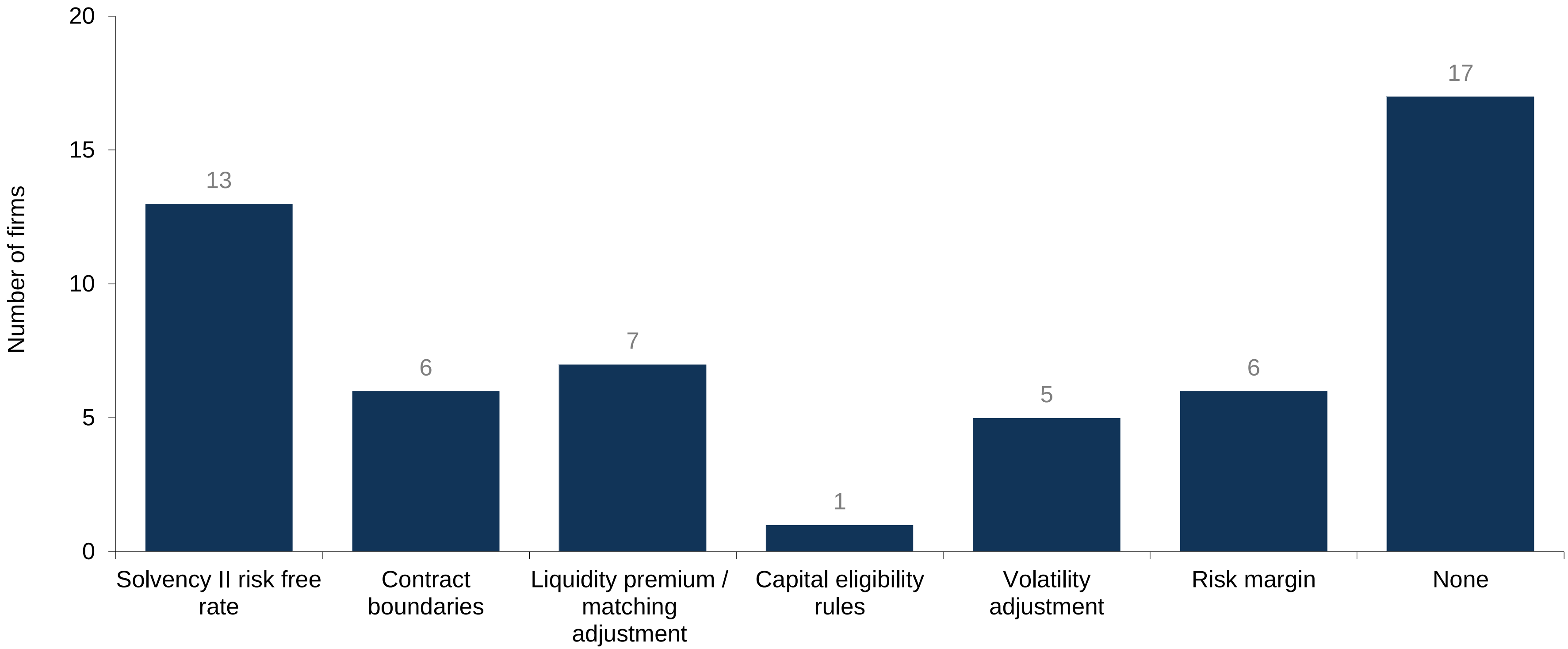
How satisfied was the Board with the results?

Which bits of your ICA will you continue to use?

Do you have any ICG?

Transitioning from ICA – Balance Sheet

Which of the following Solvency II elements do you expect to incorporate in this year's ICA methodology (based on YE13)?



Source: KPMG Technical Practices Survey 2014.

Transitioning from ICA – ORSA

Are companies prepared for ORSA?

Area of ORSA requirement	Does the ICA report cover it?
Roles & Responsibilities	Some ICA reports now document this
Process	ICA reports still do point in time position rather than describe a process
Documentation	ORSA policy is new, needed in 2014
Business Planning	Link between ORSA and business planning is now becoming established
Risk Appetite	ICA is frequently used for risk appetite
Risk Profile	More work needed on emerging risks
Current solvency position	ICA report documents this, to what extend will it be replaced by the ORSA report?
Justification of Standard Formula	Not in ICA reports, mixed progress
Projections	Some companies now have ICA projections in ICA report
Stress and Scenario Testing	Generally good, summary of outcomes needed for ORSA
Monitoring (Continuous Compliance)	Generally missing from ICA reports
Risk Mgmt System	Static information often put into the ORSA record
Decision making	Decisions documented – but is there enough risk content?

Lessons learnt from dry run activities

- What are the dry-runs for?
  - To produce results
  - To refine interpretation of rules
  - To increase understanding
  - To test models
  - To test end-to-end process including production of the QRTs
  - To test the controls and find weaknesses
  - To test speed of reporting
  - To support ORSA
  - To test governance
  - To get communications correct
  - To train and prepare staff
  - To get ready for an audit

Lessons learnt from dry run activities

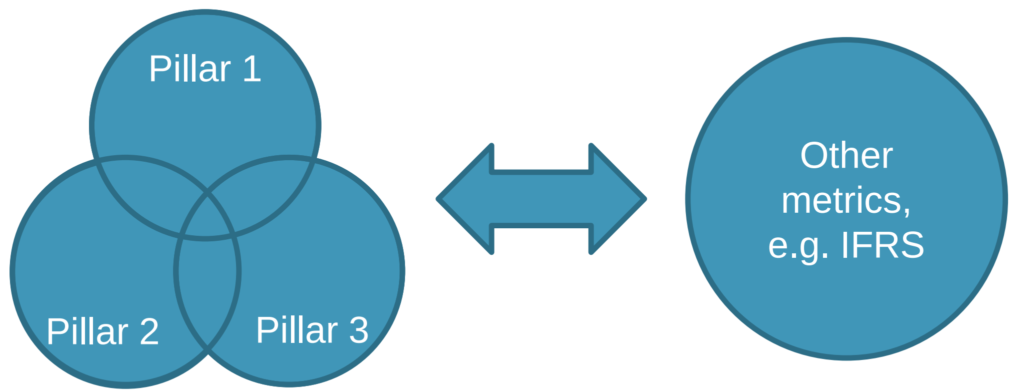
- Methodology Lessons
  - There are choices and judgements. A Technical Management Group responsible for signing off methodology and Dry Run results
    - Members include actuarial, finance, risk and tax
    - Detailed methodology papers produced
    - Key decisions such as the justification for the Standard Formula approach are taken to the Board
  - Pillar 1 requirements are now clearer
  - Pillar 1 requirements still pose challenges: look-through, modelling per policy stresses
  - Pillar 2 has more choices: contract boundaries, risk margin, staff pension scheme,….

Lessons learnt from dry run activities

- Lessons learnt with the numbers
  - Producing and analysing economic balance sheet and stresses is a familiar task
    - ICAS regime, internal economic capital
    - QIS 4, QIS 5
    - Dry runs
    - Reconciliations between ICA and Standard Formula
  - Some products more complex to explain than others, e.g. loyalty bonuses, reinsurance
  - Internal “line of business” allocation is necessary, this requires a capital allocation methodology

Lessons learnt from dry run activities

- Process lessons
  - Have a robust schedule. Numbers and reports must be complete, correct and explained in time for sign-off meetings
  - Identify bottlenecks and fix or reschedule
  - Solvency II is not a stand alone process



  - Avoid re-runs by understanding full run list and improving model and table set-up process.

Lessons learnt from dry run activities

- Process lessons
  - Time taken has reduced with each dry run
  - Continuous improvement - identify improvements each time
  - Profit & Loss Attribution lessons
    - Mostly a familiar mechanical process - decide on the steps, get the data, run and report
    - But
      - Need an expected result
      - Need Solvency II accounts
      - How to communicate key messages

Lessons learnt from dry run activities

- Technology lessons
  - Look at external solutions
  - Continuous improvement - identify improvements each time
  - Reduce the number of spreadsheets
  - Redesign inputs and outputs

Lessons learnt from dry run activities

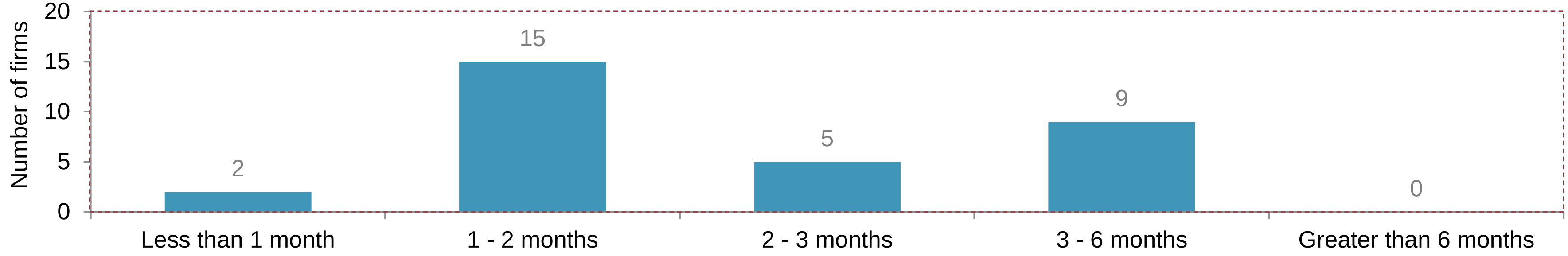
- People lessons
  - Not an actuarial only exercise – finance, risk, tax, investments, systems
  - Important to get the wider business comfortable with the results
  - Invest in training
  - Team knowledge and experience has developed
  - The interaction between teams has developed

Lessons learnt from dry run activities

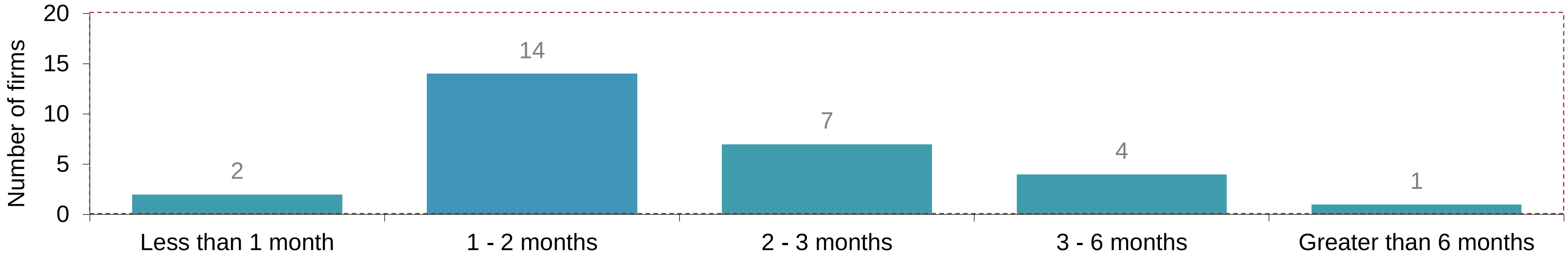
- What next ?
  - Pillar 1 now clearer – need to complete models and process
  - Pillar 2 ICA, FLAOR become ORSA
  - Pillar 3 need to complete reports and process
  - Interim reporting in 2015
  - Improve process and controls – need to hit the Solvency II reporting deadlines
  - Training
  - Make it useful - line of business analysis

What next? – Activities to speed up reporting

How long does your ICA take to produce, from production of base balance sheet to finalisation of report (pre Board sign off)?



How long does it currently take you to produce Solvency II numbers, from production of base balance sheet to finalisation of report (pre Board sign off)?

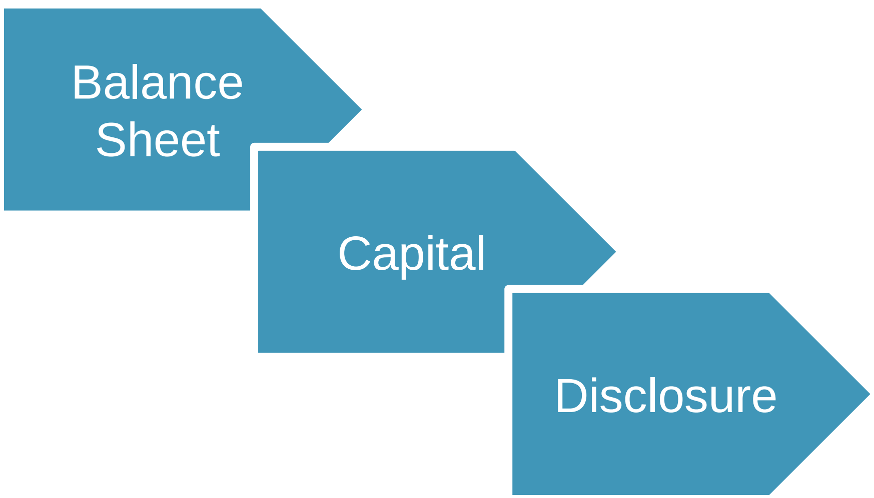


Source: KPMG Technical Practices Survey 2014.

What next? – Activities to speed up reporting

- Previous model

- New model



  – Which bits of the Balance Sheet are needed for the capital?

  – Which QRTs can be complete before the Capital is finished?

Key improvements

Developing links between different metrics

- There is currently a lot of new thinking in the industry due to the increased number of metrics that need to be produced, while at the same time there is pressure to reduce costs.
- Companies going to organise their processes and people to be as efficient and as effective as possible:

  a) Move away from teams focused on separate metrics and removing process steps by completing one metric with a full analysis of movement and the others processed with adjustments to this metric and

  b) Use single integrated run lists and a set of base calculations across all metrics.

Potential errors spotted early in the process

Given requirements for faster reporting insurers have focused on (amongst others):

- Automation of calculations (leveraging existing tools where possible to streamline calculations)
- Simplifying reporting outputs
- Controls embedded throughout the process to identify errors more quickly

The aim is to identify potential errors in the results early in the process

Improved data quality

- Automated checks and controls within a Data Warehouse (storage, calculations, reporting, decision making tool). Data to be used in a controlled way, supporting the achievement of more accurate reporting.
- There is also a focus on assumptions management (automating the upload and checking of assumptions).

Key improvements

Design of the process driven by outputs required

- Working backwards from the outputs will ensure the reporting processes are focused on what is strictly necessary to produce the outputs. Reduce the number of manual calculations required
- The target actuarial reporting process will drive the target organisational structure (which will ensure that the structure supports the most efficient and effective delivery of results)

Suitable resource model

- Many companies are moving towards integrated Finance and Actuarial Functions, to allow:
  a) Consistent use of data and processes across teams
  b) Teams to understand and learn from each other
- Ensure a suitably skilled, stable internal team is in place e.g. consider shift working. Ensure training is performed off-cycle

Making the most of off-cycle time

- Move non material or non critical calculations off-cycle. Focus on process improvements, dry run and implementation testing during off-cycle period.
- Develop sensitivities off-cycle to gauge impact of assumption changes to enable judgement calls to be made as to when on-cycle reruns are needed. This is a form of 'decision making' tool.

Implications of adopting the Standard Formula, including on Risk Management

- What capital measure do you use in the ORSA? Is this purely as capital choice or do you also re-visit the Balance Sheet?
- What is the biting metric? SCR or ORSA capital measure and which is considered for making business decisions?
- How do you demonstrate Board understanding and input to the capital metrics choices?
- How do you define your risk appetite?

- All the other Pillar 2 requirements apply to Standard Formula firms:
  - New Systems of Governance requirements
  - Prudent Persons Principle
  - Required Functions

Conclusion

Solvency II does encourage good risk management and bring insight.

BUT there is lots to do……

….HOWEVER preparation can overcome many issues. Timelines and resource requirements reduce rapidly as more dry-runs are performed.

Standard Formula firms can use the time others are spending on IMAP to sharpen processes, understand results and get the messaging right.