Transitional Measure on Technical Provisions (TMTP)

Ian Williams

Rodwel Mupambirei

21 April 2017

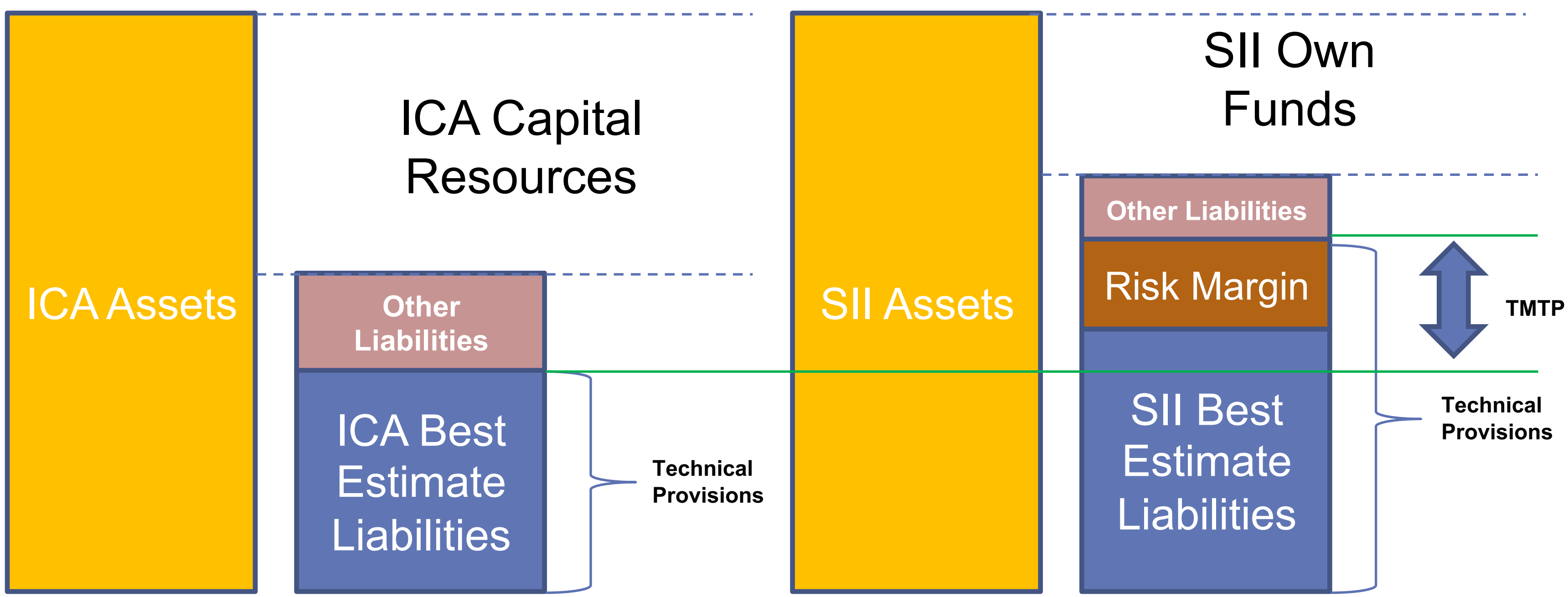
Network of Consulting Actuaries (NOCA) UK

TMTP- Background

- Articles 308c and 308d of the Solvency II Directive cover transitional measures that are designed to ease the financial burden of moving from Solvency I to Solvency II, and to avoid any market disruption that could be caused by moving to the new Solvency regime.
- Two transitional measures are covered, Article 308c sets out the transitional measure on risk-free interest rates, while Article 308d covers the transitional measure on technical provisions. This presentation is concerned with the latter only.
- The two transitional measures are mutually exclusive (i.e. use of one prohibits the use of the other), and require PRA approval for use. TMTP has proved the most popular of the two transitional measures in the UK life insurance market.
- The regulations set out in Article 308d have been translated into the UK FSMA Solvency 2 Regulations 2015 in Chapter 2 Section 54.
- At the time of writing, these are supported by the following PRA publications:
    - Supervisory Statement SS17/15: Solvency II transitional measures on risk free interest rates and technical provisions (March 2015, updated November 2016)
    - Supervisory Statement SS6/16: Recalculation of the ‘transitional measure on technical provisions’ under Solvency II (May 2016)
    - Consultation Paper CP47/16: Maintenance of the ‘transitional measure on technical provisions’ under Solvency II (December 2016)

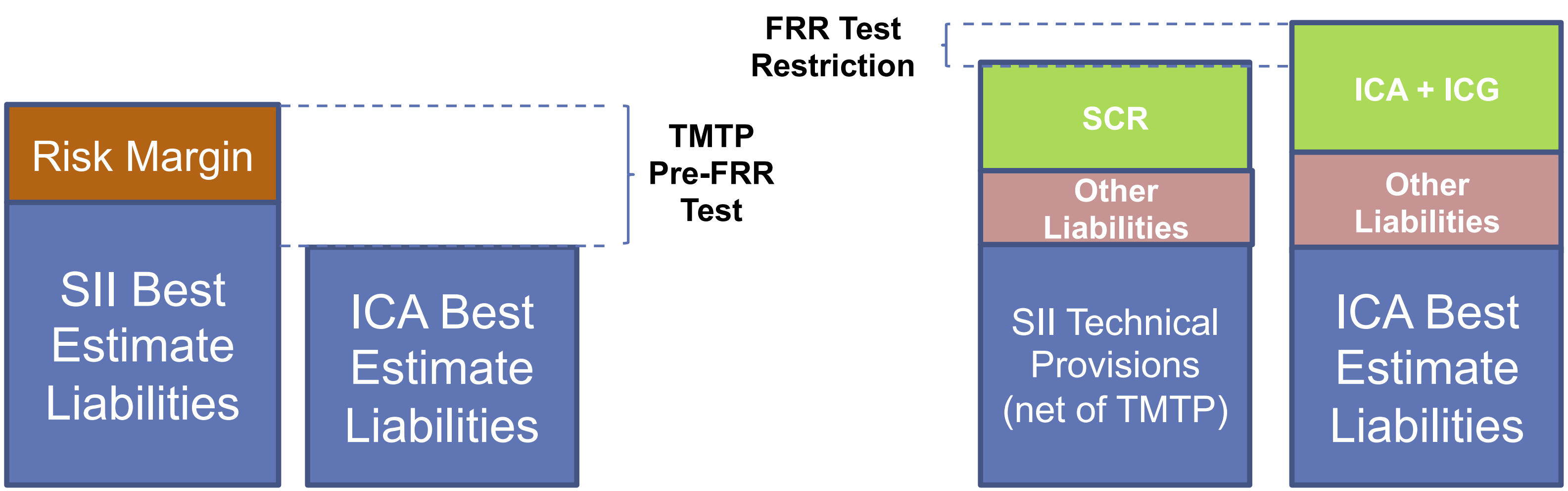
TMTP- Calculation

- Calculated as at 1 January 2016 and runs of linearly over 16 years at the end of each year from 100% during the calendar year of 2016 to 0% from the calendar year 2032 onwards.
- Difference between SI (Pillar 2) and SII (allowing for the matching adjustment/volatility adjustment/contract boundaries where appropriate) technical provisions net of reinsurance.
- Asset side of balance sheet ignored.
- Only applies to business written before 1 January 2016.



Financial Resources Requirement (FRR) Test

- Levels of TMTP are capped such that the technical provisions, other liabilities and SCR (Solvency Capital Requirement) under Solvency II (after allowance for TMTP) can be no lower than the equivalent amounts under Solvency I (including any add-ons determined by the PRA). This is known as the Financial Resources Requirement (FRR) test.



Drivers of TMTP

- There is no equivalent of the Risk Margin under Solvency I, therefore the Risk Margin is a key driver of the level of TMTP. In effect, the Risk Margin is entirely offset by the TMTP at the point of Solvency II implementation.
- TMTP can also arise on the BEL element of technical provisions. The following table highlights some of the differences in Solvency I and Solvency II BEL that can affect the level of TMTP:

	Risk-Free Interest Rates	Volatility Adjustment	Illiquidity Premium	Matching Adjustment	Contract Boundaries
Solvency I Pillar 2	Varies by Firm	N/A	Typically Annuity Business	N/A	N/A
Solvency II	Swaps	Subject to PRA Approval	N/A	Subject to PRA Approval	Included

- Gilts vs Swaps - in current market gilts are higher and so generates TMTP
- VA – if present will act to reduce TMTP
- IP – will be a source of TMTP if applied to annuity business under Solvency I
- MA – will reduce TMTP if used. The relative levels of IP/MA will determine overall level of TMTP on annuity business
- Contract boundaries – only apply to Solvency II and are likely to be a source of TMTP

Overview of PRA Guidance

- The following summaries some of the main points coming out of the main PRA publications on TMTP to date:

Publication	Date	Key Points
SS17/15	Mar 2015/Nov 2016	• Pillar 2 liabilities used as comparator • TMTP will not automatically carry over on Part VII • Reinsurance post SII considered on a case by case basis • TMTP calculated at homogenous risk group level • Proportionate review of ICG • FRR test only reassessed at recalculation dates • No dividend payment restriction subject to phasing in plan • Requirement to monitor run-off
SS6/16	May 2016	• Confirmation of requirement to recalculate every 2 years • Recalculate sooner if there has been a risk profile change • The PRA will monitor markets on a 6 monthly basis • Requirement for an internal policy on recalculation • Proportionate approach to recalculation
CP47/16	Dec 2016	• Update to SS6/16 • Need to analyse components of TMTP • Consistency of SI and SII bases • Hypothecation of assets and liabilities pre and post SII • Confirms role of Audit Committees in approving recalculation methodology

Recalculation of TMTP

- Article 308d of the Solvency II Directive makes allowance for recalculation of the TMTP

Subject to prior approval by or on the initiative of the supervisory authority, the amounts of technical provisions, including where applicable the amount of the volatility adjustment, used to calculate the transitional deduction referred to in paragraph 2(a) and (b) may be recalculated every 24 months, or more frequently where the risk profile of the undertaking has materially changed.

- SS6/16 (May 2016**) Recalculation of the 'transitional measure on technical provisions' under Solvency II** The PRA set out its expectations on the recalculation process

- CP47/16 (December 2016) **'*Maintenance of the 'transitional measure on technical provisions' under Solvency II***

Amendment to SS6/16 changed the focus from recalculation to "maintenance"

Recalculation Requirements SS6/16

- Solvency II Directive makes allowance for recalculation of the TMTP every 24 months
- PRA expects all firms to recalculate TMTP every 24 months from end-2017
- The PRA may request a firm to recalculate TMTP when the risk profile has materially changed
- A firm can request a recalculation of TMTP but it will need to provide evidence of a material change in the risk profile.
- TMTP recalculation policy with symmetric triggers
- Risk management and TMTP monitoring

What Triggers a Recalculation?

A recalculation of TMTP can be triggered when there is a material change in the risk-profile of the business.

- Disposals
- Reinsurance Changes
- Changes in run-off
- Approval of the use of MA or VA
- Approval or the use of Internal Model

Other changes in operating conditions

- Risk-free rates and spreads
- Economic exposures
- Changes in projected demographic experience

ALM Activity and restructuring?

Recalculation Trigger Points

For a recalculation due to changes in operation conditions, all the following will apply:

- Changes in yields from the last recalculation
  - A 50bps change in 10-year risk-free rates will likely be material.
  - Impact on the Risk Margin
- Impact on Solvency Ratio
  - A change of more than 5% is considered material
  - Volatility of the Solvency ratio to be considered
- Impact on the post recalculation on the Solvency Ratio

Practical Considerations

- Maintenance of Solvency 1 Pillar 1/ Pillar 2 bases
- Double run-off of TMTP
- Consistency between Solvency I and Solvency II bases
- Differentiating between assets and liabilities applicable to business written before 1/1/16
- New business and FRR test
- Asset liability management

Maintenance of Solvency 1 Pillar 1/ Pillar 2 bases

- The FRR test should be re-assessed whenever a recalculation is performed

- This requires firms to continue to have same capability to calculate the following balance sheet components from INSPRU 7 rules and guidance as at 31 December 2015
    - BEL
    - SCR and ICG
    - Other liabilities e.g. deferred tax liabilities

- Modelling and data considerations

- Simplified approaches (e.g. use of Solvency Monitoring tools is allowed)

Double run-off of TMTP

The double run-off can occur when the 1/16th deduction is applied to the TMTP calculated later than 1/1/16

Run-off on the BEL TMTP

- Drop in policy count as business matures
- Unwind of risk free rate (gilts vs swaps)
- Unwinding of discount rate margins Pillar 2 vs SII (MA vs IP)

Run-off on the Risk Margin TMTP

- Run-off of SCR within the in the Risk Margin
- Risk-free vs 6% cost of capital rate unwind
- Change in balance of risks and diversification

Double run-off solutions

- Always recalculated as at 1/1/16
  - Will need to maintain older valuation models
  - Mismatch between actual business run-off and 1/16th deduction

- Gross-up using actual business runoff
  - Determining appropriate run-off factors

- Assume linear runoff
  - Simplest method
  - Guarantees a linear run-off of TMTP

TMTP Recalculation Uncertainties

- No prescribed methodology for recalculation
- Need to differentiate pre 1/1/16 assets and liabilities
- Treatment of basis changes
- Performing the FRR test
- Aligning ALM strategies with TMTP recalculations
- Reporting solvency position in between recalculation dates, and before annual run-off on 1 January each year.