PRA RULEBOOK: SOLVENCY II FIRMS: SOLVENCY CAPITAL REQUIREMENT – INTERNAL MODELS INSTRUMENT 2015

Powers exercised

A. The Prudential Regulation Authority (“PRA”) makes this instrument in the exercise of the following powers and related provisions in the Financial Services and Markets Act 2000 (“the Act”):

(1) section 137G (the PRA’s general rules); and
(2) section 137T (general supplementary powers).

B. The rule-making powers referred to above are specified for the purpose of section 138G(2) (Rule-making instrument) of the Act.

Pre-conditions to making

C. In accordance with section 138J of the Act (consultation with the Financial Conduct Authority), the PRA consulted the Financial Conduct Authority. After consulting, the PRA published a draft of proposed rules and had regard to representations made.

PRA Rulebook: Solvency II Firms: Solvency Capital Requirement - Internal Models Instrument 2015

D. The PRA makes the rules in the Annex to this instrument.

Commencement

E. This instrument comes into force on 1 January 2016.

Citation

F. This instrument may be cited as the PRA Rulebook: Solvency II Firms: Solvency Capital Requirement - Internal Models Instrument 2015.

By order of the Board of the Prudential Regulation Authority
17 March 2015

Annex

In this Annex, the text is all new and is not underlined.

Part

SOLVENCY CAPITAL REQUIREMENT – INTERNAL MODELS

Chapter content

1 APPLICATION AND DEFINITIONS

1.1 Unless otherwise stated, this Part applies to:

(1) a *UK Solvency II firm*; and

(2) in accordance with Insurance General Application 3, the *Society*.

1.2 In this Part, the following definitions shall apply:

internal model approval application

means an application by a *firm* for *internal model approval.*

internal model change policy

means a *firm's* policy for making minor and major changes to its *internal model.*

internal model requirements

means the requirements set out in Solvency Capital Requirement – Internal Models 10 to 15.

2 APPROVAL OF FULL AND PARTIAL INTERNAL MODELS

2.1 A *firm* may calculate its *SCR* using an *internal model* that is either a full *internal model* or a *partial internal model* only:

(1) if it has been granted *internal model approval* in respect of its *internal model*; and

(2) to the extent of its *internal model approval.*

2.2 A *firm* that has been granted *internal model approval* must calculate its *SCR* using the *internal model* for which *internal model approval* has been granted.

[Note: Art. 112(1) and Art. 112(2) of the *Solvency II Directive*]

3 APPLICATIONS FOR APPROVAL OF FULL AND PARTIAL INTERNAL MODELS

3.1 A *firm* making an *internal model approval application* must submit, as a minimum, documentary evidence that demonstrates to the *PRA's* satisfaction that the *internal model* and, if the context requires, the *firm* satisfies the *internal model requirements.*

[Note: Art. 112(3) of the *Solvency II Directive*]

3.2 A *firm* making an *internal model approval application* must demonstrate to the *PRA's* satisfaction that its systems for identifying, measuring, monitoring, managing and reporting risk are adequate.

[Note: Art. 112(5) of the *Solvency II Directive*]

3.3 When making an *internal model approval application*, a *firm* must submit its *internal model change policy* to the *PRA* for approval.

[Note: Art. 115 of the *Solvency II Directive*]

3.4 Upon request by the *PRA*, a *firm* with an *internal model approval* must provide the *PRA* with an estimate of the *SCR* determined in accordance with the *standard formula*.

[Note: Art. 112(7) of the *Solvency II Directive*]

4 APPLICATIONS FOR APPROVAL OF PARTIAL INTERNAL MODELS

4.1 Where an *internal model approval application* relates to the use of a *partial internal model,* the *internal model requirements* apply with any changes that are necessary to take account of the limited scope of the application of the *internal model*.

[Note: Art. 112(3) of the *Solvency II Directive*]

4.2 A *firm* making an *internal model approval application* to use a *partial internal model* must:

(1) explain, and properly justify, the reason for the limited scope of application of the *internal model*;

(2) explain how the resulting *SCR* reflects more appropriately the risk profile of the *firm* and complies with Solvency Capital Requirement - General Provisions 2 to 4; and

(3) demonstrate that the design of its *partial internal model* is consistent with the principles in Solvency Capital Requirement - General Provisions 2 to 4 so as to allow the *partial internal model* to be fully integrated into the *standard formula*.

[Note: Art. 113(1) of the *Solvency II Directive*]

5 TRANSITIONAL PLAN TO EXTEND THE SCOPE OF THE MODEL

5.1 Upon request by the *PRA*, a *firm* which has made an *internal model approval application* in respect of a *partial internal model* that only covers certain sub-modules of a specific risk module, or some of the business units of the *firm* with respect to a specific risk module, or parts of both, must submit a realistic transitional plan to extend the scope of the proposed *partial internal model*.

[Note: Art. 113(2) of the *Solvency II Directive*]

5.2 The realistic transitional plan referred to in 5.1 must set out the manner in which the *firm* plans to extend the scope of the proposed *partial internal model* to other sub-modules or business units of the *firm*, in order to ensure that the *internal model* covers a predominant part of the *firm's insurance business* with respect to that specific risk module.

[Note: Art. 113(2) of the *Solvency II Directive*]

6 CHANGES TO AN INTERNAL MODEL OR INTERNAL MODEL CHANGE POLICY

6.1 A *firm* with *internal model approval* must not change its *internal model* otherwise than in accordance with the *firm's internal model change policy* as approved by the *PRA*.

[Note: Art. 115 of the *Solvency II Directive*]

6.2 A *firm's internal model change policy* must include a specification of minor and major changes to the *internal model*.

[Note: Art. 115 of the *Solvency II Directive*]

6.3 A firm with *internal model approval* must not:

(1) make any major change to its *internal model*; or

(2) make any change to its *internal model change policy;*

without obtaining the prior approval of the *PRA* in accordance with the procedures set out in 3 to 5 for obtaining *internal model approval*.

[Note: Art. 115 of the *Solvency II Directive*]

7 RESPONSIBILITIES OF THE FIRM'S GOVERNING BODY

7.1 A *firm's*:

(1) *internal model approval application*; and

(2) application to the *PRA* for approval to make a major change to its *internal model* which is the subject of an *internal model approval*;

must be approved by the *firm's governing body*.

[Note: Art. 116 of the *Solvency II Directive*]

7.2 A *firm* must have in place systems which ensure that its *internal model* operates properly on a continuous basis.

[Note: Art. 116 of the *Solvency II Directive*]

8 REVERSION TO THE STANDARD FORMULA

8.1 A *firm* with an *internal model approval* must not, in respect of the *internal model* for which that *internal model approval* has been granted, revert to calculating the whole or any part of the *SCR* in accordance with the *standard formula.*

[Note: Art. 117 of the *Solvency II Directive*]

9 NON-COMPLIANCE OF THE INTERNAL MODEL

9.1 If a *firm* with *internal model approval* ceases to comply with the *internal model requirements*, the *firm* must, without delay, either present to the *PRA* a plan to restore compliance within a reasonable period of time, or demonstrate to the *PRA* that the effect of non-compliance is immaterial.

[Note: Art. 118(1) of the *Solvency II Directive*]

10 USE TEST

10.1 A *firm* must demonstrate to the *PRA* that its *internal model* is widely used, and plays an important role in its system of governance (referred to in Conditions Governing Business 2 – 7, Insurance - Fitness and Propriety 2.1 to 2.3, 4.1, 4.3 and 4.4 and Insurance – Allocation of Responsibilities 4) and particularly in its:

(1) risk-management system, as set out in Conditions Governing Business 3.1 to 3.7, and decision-making processes; and

(2) economic and solvency capital assessment and allocation processes, including its *ORSA,* as set out in Conditions Governing Business 3.8 to 3.11.

[Note: Art. 120 of the *Solvency II Directive*]

10.2 A *firm* must also demonstrate to the *PRA* that the frequency of calculation of its *SCR* using the *internal model* is consistent with the frequency with which it uses its *internal model* for the purposes set out in 10.1.

[Note: Art. 120 of the *Solvency II Directive*]

10.3 A *firm* must ensure the ongoing appropriateness of the design and operations of its *internal model*, and that the *internal model* continues to appropriately reflect the risk profile of the *firm*.

[Note: Art. 120 of the *Solvency II Directive*]

11 STATISTICAL QUALITY STANDARDS

11.1 A *firm* must ensure that its *internal model* and, in particular, the calculation of the *probability distribution forecast* underlying it, complies with 11.2 to 11.8.

[Note: Art. 121(1) of the *Solvency II Directive*]

11.2 The methods used to calculate the *probability distribution forecast* must be:

(1) based on adequate, applicable and relevant actuarial and statistical techniques;

(2) based upon current and credible information and realistic assumptions; and

(3) consistent with the methods used to calculate *technical provisions*.

[Note: Art. 121(2) of the *Solvency II Directive*]

11.3 A *firm* must be able to justify the assumptions underlying its *internal model* to the *PRA*.

[Note: Art. 121(2) of the *Solvency II Directive*]

11.4 (1) Data used for the *internal model* must be accurate, complete and appropriate.

(2) A *firm* must update the data sets used in the calculation of the *probability distribution forecast* at least annually.

[Note: Art. 121(3) of the *Solvency II Directive*]

11.5 Without limiting the operation of 11.2, irrespective of the method chosen to calculate the *probability distribution forecast*, the ability of the *internal model* to rank risk must be sufficient to ensure that it is widely used and plays an important role in the system of governance of the *firm*, in particular in its risk-management system and decision-making processes, and capital allocation in accordance with 10.1.

[Note: Art. 121(4) of the *Solvency II Directive*]

11.6 The *internal model* must cover all of the material risks to which the *firm* is exposed, including at least the risks set out in Solvency Capital Requirement – General Provisions 3.3(1).

[Note: Art. 121(4) of the *Solvency II Directive*]

11.7 In its *internal model*, a *firm* must:

(1) accurately assess:

(a) the particular risks associated with financial guarantees and any contractual options, where material; and

(b) the risks associated with both *policyholder* options and the *firm's* contractual options,

taking into account the impact that future changes in financial and non-financial conditions may have on the exercise of those options; and

(2) take account of all payments to *policyholders* which it expects to make, whether or not those payments are contractually guaranteed.

[Note: Art. 121(7) and (9) of the *Solvency II Directive*]

11.8 A *firm's internal model* must only take into account:

(1) as regards *diversification effects*, dependencies within and across risk categories, if the *PRA* is satisfied, as part of the *internal model approval*, that the *firm's* system for measuring those *diversification effects* is adequate;

(2) the effect of *risk-mitigation techniques*, if and to the extent that *credit risk* and other risks arising from the use of *risk-mitigation techniques* are properly reflected in the *internal model*; and

(3) future management actions, if and to the extent that:

(a) they are future management actions that the *firm* would reasonably expect to carry out in specific circumstances; and

(b) the *firm* makes allowance in its *internal model* for the time necessary to implement those actions.

[Note: Art. 121(5), (6) and (8) of the *Solvency II Directive*]

12 CALIBRATION STANDARDS

12.1 *A firm* may use, for internal modelling purposes, a different time period or *risk measure* than that set out in Solvency Capital Requirement – General Provisions 3.4 only where the outputs of the *internal model* can be used by the *firm* to calculate the *SCR* in a manner that provides *policyholders* with a level of protection equivalent to that set out in Solvency Capital Requirement – General Provisions 3.2 to 3.5.

[Note: Art. 122(1) of the *Solvency II Directive*]

12.2 A *firm* must derive the *SCR* directly from the *probability distribution forecast* generated by its *internal model*, using the Value-at-Risk *risk measure* set out in Solvency Capital Requirement – General Provisions 3.4.

[Note: Art. 122(2) of the *Solvency II Directive*]

12.3 When required to do so by the *PRA*, a *firm* must run its *internal model* on relevant benchmark portfolios, using assumptions based on external rather than internal data in order to verify the calibration of the *internal model* and to check that its specification is in line with generally accepted market practice.

[Note: Art. 122(4) of the *Solvency II Directive*]

13 PROFIT AND LOSS ATTRIBUTION

13.1 A *firm* with *internal model approval* must review, at least annually, the causes and sources of profits and losses for each *major business unit*.

[Note: Art. 123 of the *Solvency II Directive*]

13.2 A *firm* must demonstrate how the categorisation of risk chosen in its *internal model* explains the causes and sources of profits and losses.

[Note: Art. 123 of the *Solvency II Directive*]

13.3 A *firm* must ensure that its categorisation of risk and attribution of profits and losses reflects its risk profile.

[Note: Art. 123 of the *Solvency II Directive*]

14 VALIDATION STANDARDS

14.1 (1) A *firm* must have in place a regular cycle of *internal model* validation which includes:

(a) monitoring the performance of the *internal model*, reviewing the ongoing appropriateness of its specification and testing its results against experience;

(b) an effective statistical process for validating the *internal model* which enables the *firm* to demonstrate to the *PRA* that the resulting capital requirements are appropriate;

(c) an analysis of the stability of the *internal model* and, in particular, the testing of the sensitivity of the results of the *internal model* to changes in key underlying assumptions; and

(d) an assessment of the accuracy, completeness and appropriateness of the data used by the *internal model*.

(2) The statistical methods applied for the purposes of (1)(b) must test the appropriateness of the *probability distribution forecast* compared to loss experience, all material new data and information relating thereto.

[Note: Art. 124 of the *Solvency II Directive*]

15 DOCUMENTATION STANDARDS

15.1 A *firm* must document the design and operational details of its *internal model*.

[Note: Art. 125 of the *Solvency II Directive*]

15.2 The documentation referred to in 15.1 must:

(1) demonstrate compliance with 10 to 14:

(2) provide a detailed outline of the theory, assumptions, and mathematical and empirical bases underlying the *internal model*;

(3) indicate any circumstances under which the *internal model* does not work effectively; and

(4) include all major changes to the *internal model*, as referred to in 6.

[Note: Art. 125 of the *Solvency II Directive*]

16 EXTERNAL MODELS AND DATA

16.1 The *internal model requirements* apply regardless whether a *firm* uses, in its *internal model*, a model or data obtained from a third party.

[Note: Art. 126 of the *Solvency II Directive*]

17 LLOYD'S

17.1 This Chapter applies to the *Society* in relation to the use of an *internal model* for the purpose of Solvency Capital Requirement – General Provisions 3.1.

17.2 The *internal model* must:

(1) separately identify and aggregate any diminution in *basic own funds* arising as a result of the application of risk scenarios taken into account in the *internal model* to:

(a) the *insurance business* of *members*; and

(b) the *central assets* and *central liabilities*; and

(2) where the risk scenarios taken into account in the *internal model* result in the *own funds* attributable to a particular *member* being exhausted, identify the consequent impact upon *own funds* attributable to the *Society*.