PRUDENTIAL REQUIREMENTS (STRESS TESTING) INSTRUMENT 2009

Powers exercised

A. The Financial Services Authority makes this instrument in the exercise of:

(1) the following powers and related provisions in the Financial Services and Markets Act 2000 ("the Act"):

(a) section 138 (General rule-making power);
(b) section 150(2) (Actions for damages);
(c) section 156 (General supplementary powers); and
(d) section 157(1) (Guidance); and

(2) the other powers and related provisions listed in Schedule 4 (Powers exercised) to the General Provisions of the Handbook.

B. The rule-making powers referred to above are specified for the purpose of section 153(2) (Rule-making instruments) of the Act.

Commencement

C. (1) Part 1 of Annexes A, B and C and Annexes D and E come into force on 14 December 2009.
(2) Part 2 of Annexes A, B and C come into force on 14 December 2010.

Amendments to the Handbook

D. The modules of the FSA's Handbook of rules and guidance listed in column (1) below are amended in accordance with the Annexes to this instrument listed in column (2).

(1)	(2)
Glossary of definitions	Annex A
Senior Management Arrangements, Systems and Controls sourcebook (SYSC)	Annex B
General Prudential sourcebook (GENPRU)	Annex C
Prudential sourcebook for Banks, Building Societies and Investment Firms (BIPRU)	Annex D
Prudential sourcebook for Insurers (INSPRU)	Annex E

Citation

E. This instrument may be cited as the Prudential Requirements (Stress Testing) Instrument 2009.

By order of the Board
10 December 2009

Annex A

Amendments to the Glossary of definitions

In this Annex, underlining indicates new text.

Part 1: Comes into force on 14 December 2009

group …

(3) (for the purposes of *SYSC* 12 (Group risk systems and controls requirement) and *GENPRU* 1.2 (Adequacy of financial resources) and in relation to a *person* "A")) A and any *person*:

(a) who falls into (1);

(b) who is a member of the same *financial conglomerate* as A;

(c) who has a *consolidation Article 12(1) relationship* with A;

(d) who has a *consolidation Article 12(1) relationship* with any *person* in (3)(a);

(e) who is a *subsidiary undertaking* of a person in (3)(c) or (3)(d); or

(f) whose omission from an assessment of the risks to A of A's connection to any *person* coming within (3)(a)-(3)(e) or an assessment of the financial resources available to such *persons* would be misleading.

…

Part 2: Comes into force on 14 December 2010

group …

(3) (for the purposes of *SYSC* 12 (Group risk systems and controls requirement), *SYSC* 20 (Reverse stress testing) and *GENPRU* 1.2 (Adequacy of financial resources) and in relation to a *person* "A")) A and any *person*:

(a) who falls into (1);

(b) who is a member of the same *financial conglomerate* as A;

(c) who has a *consolidation Article 12(1) relationship* with A;

(d) who has a *consolidation Article 12(1) relationship* with any *person* in (3)(a);

(e) who is a *subsidiary undertaking* of a person in (3)(c) or (3)(d); or

(f) whose omission from an assessment of the risks to A of A's connection to any *person* coming within (3)(a)-(3)(e) or an assessment of the financial resources available to such *persons* would be misleading.

…

Annex B

Amendments to the Senior Management Arrangements, Systems and Controls sourcebook (SYSC)

In this Annex, underlining indicates new text and striking through indicates deleted text, unless otherwise stated.

Part 1: Comes into force on 14 December 2009

12.1.9 G For the purposes of *SYSC* 12.1.8R, the question of whether the risk management processes and internal control mechanisms are adequate, sound and appropriate should be judged in the light of the nature, scale and complexity of the *group's* business and of the risks that the *group* bears. Risk management processes must include the stress testing and scenario analysis required by *GENPRU* 1.2.42R and *GENPRU* 1.2.49R(1)(b).

Part 2: Comes into force on 14 December 2010

7.1.4A G ~~Other *firms* should take account of the risk management *rules* (*SYSC* 7.1.3R and *SYSC* 7.1.4R) as if they were *guidance* (and as if "should" appeared in those rules instead of "must") as explained in *SYSC* 1 Annex 1.3.3G.~~

For a *common platform firm* included within the scope of *SYSC* 20 (Reverse stress testing), the strategies, policies and procedures for identifying, taking up, managing, monitoring and mitigating the risks to which the *firm* is or might be exposed include conducting reverse stress testing in accordance with *SYSC* 20. A *common platform firm* which falls outside the scope of *SYSC* 20 should consider conducting reverse stress tests on its business plan as well. This would further *senior personnel's* understanding of the *firm's* vulnerabilities and would help them design measures to prevent or mitigate the risk of business failure.

7.1.4B G Other *firms* should take account of the risk management *rules* (*SYSC* 7.1.3R and *SYSC* 7.1.4R) as if they were *guidance* (and as if "should" appeared in those rules instead of "must") as explained in *SYSC* 1 Annex 1.3.3G.

After *SYSC* 19, insert the following new chapter. The text is not underlined.

20 Reverse stress testing

20.1 Application and purpose

Application

20.1.1 R (1) *SYSC* 20 applies to:

(a) a *BIPRU firm*, unless it is a *BIPRU investment firm* excluded in accordance with (2); and

(b) an *insurer* unless it is:

(i) a *non-directive friendly society*; or

(ii) a *Swiss general insurer*; or

(iii) an *EEA-deposit insurer*; or

(iv) an *incoming EEA firm*; or

(v) an *incoming Treaty firm*.

(2) Subject to (3) and (4), a *BIPRU investment firm* is excluded from the scope of *SYSC* 20 if:

(a) where it carries out the *regulated activity* of *managing investments* or *safeguarding and administering investments*, it has assets under management or administration of no more than £10 billion (or the equivalent amount in foreign currency); or

(b) the total annual *fee* and *commission* income arising from its *regulated activities* is no more than £250 million (or the equivalent amount in foreign currency); or

(c) it has assets and liabilities of no more than £2 billion (or the equivalent amount in foreign currency).

(3) In order to determine whether a *BIPRU investment firm* is excluded from the scope of *SYSC* 20, the exclusion criteria in (2) apply on a consolidated basis to all of the *BIPRU investment firms* within the same *UK consolidation group* or *non-EEA sub-group* as if they were one *firm*.

(4) Any *BIPRU investment firm* which is not excluded in accordance with (2) and (3) in any given year will continue to be subject to *SYSC* 20 for the following two years irrespective of whether it satisfies the criteria to be excluded in any of those subsequent years.

Purpose

20.1.2 G This chapter amplifies *Principle* 2, under which a *firm* must conduct its business with due skill, care and diligence, and *Principle* 3, under which a *firm* must take reasonable care to organise and control its affairs responsibly and effectively, with adequate risk management systems.

20.1.3 G This chapter contains *rules* on reverse stress testing, which require a *firm* to identify and assess events and circumstances that would cause its business model to become unviable. This chapter also requires the *firm's* senior management or *governing body* to review and approve the results of the reverse stress testing exercise. This should help the *firm's* senior management to identify the *firm's* vulnerabilities and design a strategy to prevent or mitigate the risk of business failure.

20.1.4 G The reverse stress testing requirements are an integral component of a *firm's* business planning and risk management under *SYSC*. For *BIPRU firms* as referred to in *SYSC* 20.1.1R(1)(a), this chapter amplifies *SYSC* 7.1.1G to *SYSC* 7.1.8G on risk control. For *insurers* as referred to in *SYSC* 20.1.1R(1)(b), this chapter amplifies *SYSC* 14.1.17G to *SYSC* 14.1.25G on business planning and risk management.

20.2 Reverse stress testing requirements

20.2.1 R As part of its business planning and risk management obligations under *SYSC*, a *firm* must reverse stress test its business plan; that is, it must carry out stress tests and scenario analyses that test its business plan to failure. To that end, the *firm* must:

(1) identify a range of adverse circumstances which would cause its business plan to become unviable and assess the likelihood that such events could crystallise; and

(2) where those tests reveal a risk of business failure that is unacceptably high when considered against the *firm*'s risk appetite or tolerance, adopt effective arrangements, processes, systems or other measures to prevent or mitigate that risk.

20.2.2 R Where the *firm* is a member of:

(1) an *insurance group,* in respect of which it is required to maintain group capital;

(2) a *UK consolidation group*; or

(3) a *non-EEA sub-group*;

it must conduct the reverse stress test on a solo basis as well as on a consolidated basis in relation to the *insurance group*, the *UK consolidation group* or the *non-EEA sub-group*, as the case may be.

20.2.3 R The design and results of a *firm's* reverse stress test must be documented and reviewed and approved at least annually by the *firm's* senior management or *governing body*. A *firm* must update its reverse stress test more frequently if it is appropriate to do so in the light of substantial changes in the market or in macroeconomic conditions.

20.2.4 G (1) Business plan failure in the context of reverse stress testing should be understood as the point at which the market loses confidence in a *firm* and this results in the *firm* no longer being able to carry out its business activities. Examples of this would be the point at which all or a substantial portion of the *firm's* counterparties are unwilling to continue transacting with it or seek to terminate their contracts, or the point at which the *firm's* existing shareholders are unwilling to provide new capital. Such a point may be reached well before the *firm's* financial resources are exhausted.

(2) The *FSA* may request a *firm* to quantify the level of financial resources which, in the *firm's* view, would place it in a situation of business failure should the identified adverse circumstances crystallise.

(3) In carrying out the stress tests and scenario analyses required by *SYSC* 20.2.1R, a *firm* should at least take into account each of the sources of risk identified in accordance with *GENPRU* 1.2.30R(2).

20.2.5 G Reverse stress testing should be appropriate to the nature, size and complexity of the *firm's* business and of the risks it bears. Where reverse stress testing reveals that a *firm's* risk of business failure is unacceptably high, the *firm* should devise realistic measures to prevent or mitigate the risk of business failure, taking into account the time that the *firm* would have to react to these events and implement those measures. As part of these measures, a *firm* should consider if changes to its business plan are appropriate. These measures, including any changes to the *firm's* business plan, should be documented as part of the "results" referred to in *SYSC* 20.2.3R.

20.2.6 G In carrying out its reverse stress testing, a *firm* should consider scenarios in which the failure of one or more of its major counterparties or a significant market disruption arising from the failure of a major market participant, whether or not combined, would cause the *firm's* business to fail.

20.2.7 G (1) The *FSA* may request a *firm* to submit the design and results of its reverse stress tests and any subsequent updates as part of its ARROW risk assessment.

(2) In the light of the results of a *firm's* reverse stress tests, the *FSA* may require the *firm* to implement specific measures to prevent or mitigate the risk of business failure where that risk is not sufficiently mitigated by the measures adopted by the *firm* in accordance with *SYSC* 20.2.1R, and the *firm's* potential failure poses an unacceptable risk to the *FSA's* statutory objectives.

(3) The *FSA* recognises that not every business failure is driven by lack of financial resources and will take this into account when reviewing a *firm's* reverse stress test design and results.

Annex C

Amendments to the General Prudential sourcebook (GENPRU)

In this Annex, underlining indicates new text and striking through indicates deleted text.

Part 1: Comes into force on 14 December 2009

1.2.27 G The liabilities referred to in the *overall financial adequacy rule* include a *firm's* contingent and prospective liabilities. ~~It excludes~~ They exclude liabilities that might arise from transactions that a *firm* has not entered into and which it could avoid, for example, by ~~ceasing to trade~~ taking realistic management actions such as ceasing to transact new business after a suitable period of time has elapsed. ~~It includes~~ They include liabilities or costs that arise ~~as a consequence of strategies other than~~ ~~continuing as~~ both in scenarios where the *firm* is a going concern and those where the *firm* ceases to be a going concern. ~~It~~ They also ~~includes~~ include claims that could be made against a *firm*, which ought to be paid in accordance with fair treatment of *customers*, even if such claims could not be legally enforced.

…

Systems, strategies, processes and reviews

1.2.30 R A *firm* must have in place sound, effective and complete processes, strategies and systems:

…

(2) that enable it to identify and manage the major sources of risks referred to in (1), including the major sources of risk in each of the following categories where they are relevant to the *firm* given the nature and scale of its business:

…

(j) interest rate risk (including in the case of a *BIPRU firm*, interest rate risk in the *non-trading book*); ~~and~~

(k) pension obligation risk; and

(l) group risk.

…

1.2.32 G (1) This paragraph gives *guidance* on some of the terms used in the *overall Pillar 2 rule*.

…

(6) Group risk is the risk that the financial position of a *firm* may be adversely affected by its relationships (financial or non-financial) with other entities in the same *group* or by risks which may affect the financial position of the whole *group*, for example reputational contagion. Further *guidance* on group risk can be found in *GENPRU* 1.2.87G to *GENPRU* 1.2.91G.

…

1.2.37 R The processes and systems required by the *overall Pillar 2 rule* must:

(1) include an assessment of how ~~it~~ the *firm* intends to deal with each of the major sources of risk identified in accordance with *GENPRU* 1.2.30R(2); ~~and~~

(2) take into account the impact of diversification effects and how such effects are factored into the *firm's* systems for measuring and managing risks; and

(3) include an assessment of the *firm*-wide impact of the risks identified in accordance with *GENPRU* 1.2.30R(2), to which end a *firm* must aggregate the risks across its various business lines and units, making appropriate allowance for the correlation between risks.

…

Stress and scenario tests

1.2.42 R (1) As part of its obligation under the *overall Pillar 2 rule*, a *firm* must, for ~~each of~~ the major sources of risk identified in accordance with *GENPRU* 1.2.30 R(2), carry out stress tests and scenario analyses that are appropriate to the nature, scale and complexity of those major sources of risk and to the nature, scale and complexity of the *firm's* business~~, as part of which the *firm* must:~~

~~(a) take reasonable steps to identify an appropriate range of realistic adverse circumstances and events in which the risk identified crystallises; and~~

~~(b) estimate the financial resources the *firm* would need in each of the circumstances and events considered in order:~~

~~(i) to be able to meet its liabilities as they fall due;~~

~~(ii) to be able to meet the *CRR*;~~

~~(iii) to carry out the plans referred to in *GENPRU* 1.2.37R (1); and~~

~~(iv) otherwise to meet, to the extent that it considers necessary, that major source of risk~~.

(2) In carrying out the stress tests and scenario analyses in (1), a ~~*BIPRU*~~ *firm* ~~with an *IRB permission*~~ must ~~incorporate and take into account the stress tests required to be carried out under *BIPRU* 4.3.39R to *BIPRU* 4.3.40R (Stress tests used in assessment of capital adequacy)~~ identify an appropriate range of adverse circumstances of varying nature, severity and duration relevant to its business and risk profile and consider the exposure of the *firm* to those circumstances, including:

(a) circumstances and events occurring over a protracted period of time;

(b) sudden and severe events, such as market shocks or other similar events; and

(c) some combination of the circumstances and events described in (a) and (b), which may include a sudden and severe market event followed by an economic recession.

(3) ~~In carrying out the stress tests and scenario analyses in (1), a *BIPRU firm* must incorporate and take into account any other stress tests and scenario analyses that it is required to carry out under any other provision of the *Handbook*.~~ In carrying out the stress tests and scenario analyses in (1), the *firm* must estimate the financial resources that it would need in order to continue to meet the *overall financial adequacy rule* and the *CRR* in the adverse circumstances being considered.

(4) In carrying out the stress tests and scenario analyses in (1), the *firm* must assess how risks aggregate across business lines or units, any material non-linear or contingent risks and how risk correlations may increase in stressed conditions.

(5) As part of its obligation under the *overall Pillar 2 rule*, a *BIPRU firm* must also incorporate and take into account any stress tests and scenario analyses that it is required to carry out under *BIPRU.* In particular, a *BIPRU firm* with an *IRB permission* must incorporate and take into account the stress test required to be carried out under *BIPRU* 4.3.40R(2).

1.2.42A G In order to comply with the *general stress and scenario testing rule*, a *firm* should undertake a broad range of stress tests which reflect a variety of perspectives, including sensitivity analysis, scenario analysis and stress testing on an individual portfolio as well as a *firm*-wide level.

1.2.42B G A *BIPRU firm* with an *IRB permission* which has any material credit *exposures* excluded from its *IRB* models should also include these *exposures* in its stress and scenario testing to meet its obligations under the *general stress and scenario testing rule*. A *BIPRU firm* without an *IRB permission*, or an *insurer* that has any material credit and counterparty credit risk exposures, should conduct analyses to assess risks to the credit quality of its counterparties, including any protection sellers, considering both on and off-balance sheet exposures.

1.2.42C G An *insurer* may choose to carry out its *ICA* through the use of stress testing and scenario analyses (see *INSPRU* 7.1.10G and *INSPRU* 7.1.68G). If it does so, in carrying out the stress tests and scenario analyses referred to in *GENPRU* 1.2.42R, an *insurer* should take into account the stress tests it uses for its *ICA*.

1.2.42D G In carrying out the stress tests and scenario analyses required by *GENPRU* 1.2.42R(1), a *firm* should also consider any impact of the adverse circumstances on its *capital resources*. In particular, a *firm* should consider the *capital resources gearing rules* where its *tier one capital* is eroded by the event.

1.2.42E G A *firm* should assign adequate resources, including IT systems, to stress testing and scenario analysis, taking into account the stress testing techniques employed, so as to be able to accommodate different and changing stress tests at an appropriate level of granularity.

1.2.42F G *GENPRU* 1.2.63G to *GENPRU* 1.2.78G provide additional *guidance* on stress testing and scenario analyses. In particular, *GENPRU* 1.2.73AG provides specific *guidance* on capital planning.

…

Documentation of risk assessments

1.2.60 R A *firm* must make a written record of the assessments required under this section. These assessments include assessments carried out on a consolidated basis and on a solo basis. In particular, it must make a written record of:

…

(3) details of the stress tests and scenario analyses carried out, including any assumptions made in relation to scenario design, and the resulting financial resources estimated to be required in accordance with the *general stress and scenario testing rule.*

…

Additional guidance on stress tests and scenario analyses

1.2.63 G The *general stress and scenario testing rule* requires a *firm* to carry out stress tests and scenario analyses as part of its obligations under the *overall Pillar 2 rule*. Both stress tests and scenario analyses ~~can be~~ are undertaken by a *firm* to further a better understanding of the vulnerabilities that it faces under ~~extreme~~ adverse conditions. They are based on the analysis of the impact of ~~unlikely, but not impossible, events~~ a range of events of varying nature, severity and duration. These events can be financial, operational or legal or relate to any other risk that might have an economic impact on the *firm*.

…

1.2.67 G ~~The *general stress and scenario testing rule* requires a *firm*, as part of carrying out stress tests and scenario analyses, to take reasonable steps to identify an appropriate range of realistic circumstances and events in which a risk would crystallise. In particular:~~

~~(1) a *firm* need only carry out stress tests and scenario analyses in so far as the circumstances or events are reasonably foreseeable, that is to say, their occurrence is not too remote a possibility: and~~

~~(2) a *firm* should also take into account the relative costs and benefits of carrying out the stress tests and scenario analyses in respect the circumstances and events identified.~~ [deleted]

…

1.2.70 G Where a *firm* is exposed to *market risk*, ~~The~~ the time horizon over which stress tests and scenario ~~analysis~~ analyses should be carried out ~~should~~ will depend on, among other things, the maturity and liquidity of the *positions* stressed. For example, for the *market risk* arising from the holding of investments, this ~~should~~ will depend upon:

…

(2) the extent to which the market in those assets is sufficiently liquid (and would remain liquid in the changed circumstances contemplated in the stress test or scenario analysis) to allow the *firm*, if needed, to sell, hedge or otherwise mitigate the risks relating to its holding so as to prevent or reduce exposure to future price fluctuations. In devising stress tests and scenario analyses for *market risk*, a *BIPRU firm* should also take into account *BIPRU* 7.1.17R to *BIPRU* 7.1.20G.

…

1.2.73 G (1) ~~A *firm* should conduct stress tests and scenario analyses which project its financial position (both profitability and balance sheet~~

~~position) so as to estimate both its *capital resources* and *capital resource requirements* throughout an economic or business cycle.~~ [deleted]

(1A) ~~For an *insurer*, these tests and analyses are in addition to those that may be used for the *ICA* (see *INSPRU* 7.1.10G and *INSPRU* 7.1.68G). Projections should be made on different bases, including ones which are consistent with the business plan, as well as others using 'realistically adverse' alternative scenarios. In considering the tests and analyses to be used for the purposes of these projections, an *insurer* should have regard to the matters mentioned below.~~

~~(a)~~ ~~As with the *ICA*, it is for the *insurer* to identify an appropriate range of adverse circumstances and events. As the projections are being assessed as part of business planning, the *FSA* would expect stresses and scenarios to be more likely than the extreme conditions covered by an *ICA*. As a guide, stresses and scenarios with a probability of once in a 25 year period would be useful as a reference when an *insurer* discusses projections of its financial position with the *FSA* (see also *GENPRU* 1.2.75G (3)).~~

~~(b)~~ ~~Business risk is likely to be a more significant feature in projecting an *insurer's* financial position than in its *ICA* (see *GENPRU* 1.2.31R and *GENPRU* 1.2.32G).~~

~~(c)~~ ~~The treatment of new business is likely to be different for projecting an *insurer's* financial position than in its *ICA*. In the former, this should be based on the firm's business plan, but flexed to incorporate potential changes in trading conditions and strategy. In the latter, account should be taken of the effects of a closure to new business (see *GENPRU* 1.2.27G, *GENPRU* 1.2.73G(3) and *INSPRU* 7.1.16G to *INSPRU* 7.1.19G).~~

~~(d)~~ ~~Methods that are more approximate than used for an *ICA* may be appropriate for projecting elements of an *insurer's* financial position (e.g. the *with-profits insurance capital component* for *realistic basis life firms*).~~ [deleted]

(2) ~~A *firm* will need to consider the cycles it is most exposed to and whether these are general economic cycles or specific to particular markets, sectors or industries. The length of time over which such projections would be appropriate will therefore vary, but typically might be between three and five years.~~ [deleted]

(3) ~~The projections should be based on the *firm's* business plan, but flexed to incorporate adverse trading conditions and any changes in strategy which the *firm* could and would take in response to those conditions~~. [deleted]

(4) ~~Changes in strategy might be necessary for instance because capital needed to be able to continue its business at existing volumes is eroded. A *firm* may also alter its capital management strategy to restrict distributions of profits or to raise additional capital. The combined effect on capital and retained earnings should be estimated. A *firm* should document how it would react to such economic and business risks.~~ [deleted]

(5) ~~The *FSA* will take the projections referred to in this paragraph and the plan referred to in (4) into account as part of its *SREP*. The purpose of examining them is to enable the *FSA* to judge, at an appropriate level of certainty, whether the *firm* will be able to meet its obligations throughout a recession.~~ [deleted]

Capital planning

1.2.73A G (1) In identifying an appropriate range of adverse circumstances and events in accordance with *GENPRU* 1.2.42R(2):

(a) a *firm* will need to consider the cycles it is most exposed to and whether these are general economic cycles or specific to particular markets, sectors or industries;

(b) for the purposes of *GENPRU* 1.2.42R(2)(a), the amplitude and duration of the relevant cycle should include a severe downturn scenario based on forward looking hypothetical events, calibrated against the most adverse movements in individual risk drivers experienced over a long historical period;

(c) the adverse scenarios considered should in general be acyclical and, accordingly, the scenario should not become more severe during a downturn and less severe during an upturn. However, the *FSA* does expect scenarios to be updated with relevant new economic data on a pragmatic basis to ensure that the scenario continues to be relevant; and

(d) the adverse scenarios considered should reflect a *firm*'s risk tolerance of the adverse conditions through which it expects to remain a going concern.

(2) In making the estimate required by *GENPRU* 1.2.42R(3), a *firm* should project both its *capital resources* and its required *capital resources* over a time horizon of 3 to 5 years, taking account of its business plan and the impact of relevant adverse scenarios. In making the estimate, the *firm* should consider both the *capital resources* required to meet its *CRR* and the *capital resources* needed to meet the *overall financial adequacy rule*. The *firm* should make these projections in a manner consistent with its risk management processes and systems as set out in *GENPRU* 1.2.37R.

(3) In projecting its financial position over the relevant time horizon, the *firm* should:

(a) reflect how its business plan would "flex" in response to the adverse events being considered, taking into account factors such as changing consumer demand and changes to new business assumptions;

(b) consider the potential impact on its stress testing of dynamic feedback effects and second order effects of the major sources of risk identified in accordance with *GENPRU* 1.2.30R(2);

(c) estimate the effects on the *firm's* financial position of the adverse event without adjusting for management actions;

(d) separately, identify any realistic management actions that the *firm* could and would take to mitigate the adverse effects of the stress scenario; and

(e) estimate the effects of the stress scenario on the *firm's* financial position after taking account of realistic management actions.

(4) A *firm* should identify any realistic management actions intended to maintain or restore its capital adequacy. These could include ceasing to transact new business after a suitable period has elapsed, balance sheet shrinkage, restricting distribution of profits or raising additional capital. A *firm* should reflect management actions in its projections only where it could and would take such actions, taking account of factors such as market conditions in the stress scenario and any effects upon the *firm's* reputation with its counterparties and investors. The combined effect on capital and retained earnings should be estimated. In order to assess whether prospective management actions in a stress scenario would be realistic and to determine which actions the *firm* would and could take, the *firm* should take into account any preconditions that might affect the value of management actions as risk mitigants and analyse the difference between the estimates in (3)(c) and (3)(e) in sufficient detail to understand the implications of taking different management actions at different times, particularly where they represent a significant divergence from the *firm's* business plan.

(5) The *firm* should document its stress testing and scenario analysis policies and procedures, as well as the results of its tests in accordance with *GENPRU* 1.2.60R. These records should be included within the *firm's ICAAP* or *ICA* submission document.

(6) The *FSA* will review the *firm's* records referred to in (5) as part of its *SREP*. The purpose of examining these is to enable the *FSA* to judge whether a *firm* will be able to continue to meet its *CRR* and

the *overall financial adequacy rule* throughout the projection period.

(7) If, after taking account of realistic management actions, a *firm's* stress testing management plan shows that the *firm's* projected *capital resources* are less than those required to continue to meet its *CRR* or less than those needed to continue to meet the *overall financial adequacy rule* over the projection period, the *FSA* may require the *firm* to set out additional countervailing measures and off-setting actions to reduce such difference or to restore the *firm's* capital adequacy after the stress event.

(8) The *firm's* senior management or *governing body* should be actively involved and engaged in all relevant stages of the *firm's* stress testing and scenario analysis programme. This would include establishing an appropriate stress testing programme, reviewing the programme's implementation (including the design of scenarios) and challenging, approving and actioning the results of the stress tests.

(9) For an *insurer*:

(a) the treatment of new business when making capital projections is likely to be different from its *ICA*. In projecting its financial position, an *insurer* should take account of new business based on the *firm's* business plan, but flexed to take account of potential changes in trading conditions and strategy. When assessing its current capital adequacy under its *ICA*, an *insurer* should take account of the effects of closure to new business (see *GENPRU* 1.2.27G, *GENPRU* 1.2.73AG(3) and (4) and *INSPRU* 7.1.16G to *INSPRU* 7.1.19G). Also, an *insurer* may use methods that are more approximate than used for its *ICA* (for example, in projecting the *with-profits insurance capital component* for *realistic basis life firms* and the *capital resources* needed to meet the *overall financial adequacy rule*); and

(b) where management discretion is exercised as a normal part of an *insurer's* business (for example, in changing bonus rates or *surrender values* in accordance with the *PPFM* for *with-profits business*), under (3)(c) the *insurer* does not need to estimate the effect of an adverse event on its financial position without adjusting for such changes. However, the effect on the financial position of varying such actions should be estimated and understood.

1.2.73B G The *FSA* may formulate macroeconomic and financial market scenarios which a *firm* may use as an additional input to its *ICAAP* or *ICA* submission. In addition, the *FSA* may also ask a *firm* to apply specific scenarios directly in its *ICAAP* or *ICA* submission.

…

1.2.75 G (1) ~~A *firm* should assess the nature and severity of the economic recession or business cycle changes which are relevant to it given the nature and scale of its business. When projecting its *capital resources* and *CRR*, a *firm* should consider a range of stresses and scenarios both in nature and severity.~~ [deleted]

(2) Stress and scenario analyses should, in the first instance, be aligned with the risk appetite of the *firm*, as well as the nature, scale and complexity of its business and of the risks that it bears. ~~and the~~ The calibration of ~~such~~ the stress and scenario analyses should be reconciled ~~back~~ to a clear statement setting out the premise upon which the *firm's* internal capital assessment under the *overall Pillar 2 rule* is based.

(3) ~~A firm with an *IRB permission* should ensure that the range of stresses and scenarios considered encompasses the severity of recession specified in *BIPRU* 4.3.40R (Stress tests used in assessment of capital adequacy), which is one that might be expected to occur once in a 25 year period. Other *firms* may also find that this is a useful reference point when discussing their assessments with the *FSA*.~~ [deleted]

(4) …

…

Pension obligation risk

1.2.79 G *GENPRU* 1.2.80G ~~-~~ to *GENPRU* 1.2.86G contain *guidance* on the assessment required by *GENPRU* 1.2.30R(2)(k) ~~(Pension risk)~~ for a *firm* exposed to pension obligation risk as defined in *GENPRU* 1.2.31R(5).

1.2.80 G The pension scheme itself (i.e. the scheme's assets and liabilities) is not the focus of the risk assessment~~;~~ but rather ~~it is~~ the *firm's* obligations towards the pension scheme ~~which is~~. A *firm* should include in its estimate of financial resources both its expected obligations to the pension scheme and any increase in obligations that may arise in a stress scenario.

…

1.2.82 G A *firm* should also assess the risks that may increase its current funding obligations towards the pension scheme and that might lead to the *firm* not being able to pay its other liabilities as they fall due.

…

1.2.83A G A *firm* is expected to determine where the scope of any stress test impacts upon its pension obligation risk and estimate how the relevant measure of pension obligation risk will change in the scenario in question. For example, in carrying out stress tests under *GENPRU* 1.2.42R a *firm* must consider how a stress scenario, such as an economic recession, would impact on the *firm's* current obligations towards its pension scheme and any potential increase in those obligations. Risks such as interest rate risk or reduced investment returns may have a direct impact on a *firm's* financial position as well as an indirect impact resulting from an increase in the *firm's* pension scheme obligations. Both effects should be taken into account in a *firm's* estimate of financial resources under *GENPRU* 1.2.30R.

…

Group risk

1.2.87 G *GENPRU* 1.2.88G to *GENPRU* 1.2.91G contain additional *guidance* on the assessment required by *GENPRU* 1.2.30R(2)(l) (Group risk).

1.2.88 G A *firm* should include in the written record referred to in *GENPRU* 1.2.60R a description of the broad business strategy of the *insurance group*, the *UK consolidation group* or the *non-EEA sub-group* of which it is a member, the group*'s* view of its principal risks and its approach to measuring, managing and controlling the risks. This description should include the role of stress testing, scenario analysis and contingency planning in managing risk at the solo and consolidated level.

1.2.89 G A *firm* should satisfy itself that the systems (including IT) of the *insurance group*, the *UK consolidation group* or the *non-EEA sub-group* of which it is a member are sufficiently sound to support the effective management and, where applicable, the quantification of the risks that could affect the *insurance group*, the *UK consolidation group* or the *non-EEA sub-group*, as the case may be.

1.2.90 G In performing stress tests and scenario analyses, a *firm* should take into account the risk that its *group* may have to bring back on to its consolidated balance sheet the assets and liabilities of off-balance sheet entities as a result of reputational contagion, notwithstanding the appearance of legal risk transfer.

1.2.91 G A *firm* should carry out stress tests and scenario analyses to a degree of sophistication which is commensurate with the complexity of its *group* and the nature of its group risk.

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1.2.75 G (1) …

…

(4) ~~A *firm* may also consider scenarios in which the amount of capital it currently holds would be exhausted. This would provide useful information about the reasonableness or remoteness of such scenarios arising. Where a *firm* uses capital models as part of its risk management processes, considering the sensitivity of model results to variations around the most likely ruin scenario focuses testing on the most relevant scenarios.~~ In identifying adverse circumstances and events in accordance with *GENPRU* 1.2.42R(2), a *firm* should consider the results of any reverse stress testing conducted in accordance with *SYSC* 20. Reverse stress testing may be expected to provide useful information about the *firm's* vulnerabilities and variations around the most likely ruin scenarios for the purpose of meeting the *firm's* obligations under *GENPRU* 1.2.42R. In addition, such a comparison may help a *firm* to assess the sensitivity of its financial position to different stress calibrations.

Annex D

Amendments to the Prudential sourcebook for Banks, Building Societies and Investment Firms (BIPRU)

In this Annex, underlining indicates new text and striking through indicates deleted text.

2.2.16 G If the *FSA* gives *individual capital guidance* to a *firm,* the *FSA* will state what amount and quality of capital the *FSA* considers the *firm* needs to hold in order to comply with the *overall financial adequacy rule*. It will generally do so by saying that the *firm* should hold *capital resources* of an amount which is at least equal to a specified percentage of that *firm's capital resources requirement*. Such amount should be sufficient to enable the *firm* to continue to meet the *overall financial adequacy rule* in the face of the adverse circumstances and events to which *GENPRU* 1.2.42R(2) refers, taking account of any risk mitigation available to the *firm*.

…

2.2.25 G (1) This paragraph applies to a small *firm* whose activities are simple and primarily not credit-related.

…

(4) A *firm* should conduct stress tests and scenario analyses in accordance with *GENPRU* 1.2.42R to assess how that *firm's* capital and *CRR* would alter and what that *firm's* reaction might be to a range of adverse scenarios, including operational and market events. Where relevant, a *firm* should also consider the impact of ~~an~~ a severe economic or industry downturn on its future earnings, *capital resources* and *capital resources requirement*, taking into account its business plans. The downturn scenario should be based on forward looking hypothetical events calibrated against the most adverse movements in individual risk drivers experienced over a long historical period.

2.2.26 G In relation to a *firm* whose activities are moderately complex, in carrying out its *ICAAP*, *BIPRU* 2.2.25G(3) to (4) apply. In addition, it could:

…

(7) assume that business does not develop as expected and consider how that *firm's* capital and *CRR* would alter and what that *firm's* reaction to a range of adverse economic scenarios might be (see *GENPRU* 1.2.30R to *GENPRU* 1.2.43G (the *overall Pillar 2 rule* and related *rules* and *guidance*)). Where appropriate, the adverse scenarios should consider the impact of market events that are instantaneous or occur over an extended period of time but which are nevertheless still co-dependent on movements in economic conditions;

…

…

2.2.40 G To assess its expected capital requirements over the economic and business cycles, a *firm* may wish to project forward its financial position taking account of its business strategy and expected growth according to a range of assumptions as to the state of the economic or business environment which it faces. For example, an *ICAAP* should include an analysis of the impact that the actions of a *firm's* competitors might have on its performance, in order to see what changes in its environment the *firm* could sustain. Projections over a three to five year period would be appropriate in most circumstances. A *firm* may then calculate its projected *CRR* and assess whether it could be met from expected financial resources. Additional *guidance* on capital planning over an economic and business cycle can be found in *GENPRU* 1.2.73AG (Capital planning).

…

2.2.44 G If a *firm's* current available *capital resources* are less than the capital resources requirement indicated by the stress test that need not be a breach of *BIPRU* 2.2.41R. The *firm* may wish to set out any countervailing effects and off-setting actions that can be demonstrated to the satisfaction of the *FSA* as being likely to reduce the difference referred to in the first sentence. The *FSA* is only likely to consider a demonstration of such actions as credible if those actions are set out in a capital management plan based on the procedures in *GENPRU* ~~1.2.73G (Stress tests and scenario analyses throughout an economic or business cycle)~~ 1.2.73AG (Capital planning) and including a plan of the type referred to in *GENPRU* ~~1.2.73G(4)~~ 1.2.73AG(5) that has been approved by the *firm's* senior management or *governing body*.

…

2.3.9 G For a larger and/or more complex *firm,* appropriate systems to evaluate and manage interest rate risk in the *non-trading book* ~~may~~ should include:

(1) the ability to measure the exposure and sensitivity of the *firm's* activities, if material, to repricing risk, yield curve risk, basis risk and risks arising from embedded optionality (for example, pipeline risk, prepayment risk) as well as changes in ~~the shape of the yield curve, changes between different market rates (i.e. basis risk) and changes to~~ assumptions (for example, those about customer behaviour);

…

…

4.3.39A G The *FSA* expects that *firms* will routinely make use of stress testing and scenario analysis as a tool in the calibration and/or validation of their *IRB* *approach* parameters in order to increase the accuracy or, at least, the conservatism of the estimates. Stress testing should include a thorough exploration of various outturns different to the *firm's* normal expectations in order to give the *firm* a clear view of the potential for the forward-looking estimate to be different from that indicated by the primary data source(s). *Firms* should consider this as an integral part of their quantification process, and should have clear standards for how the results of the stress tests affect the final estimates used for the *IRB approach* parameters.

4.3.40 R …

(2) The stress test must be designed to assess the *firm's* ability to meet its capital requirements for credit risk under *GENPRU* 2.1 during all stages of the economic cycle and during an economic ~~recession such as might be experienced once in 25 years~~ downturn scenario based on forward looking hypothetical events calibrated against the most adverse movements in individual risk drivers experienced over a long historical period.

…

5.2.9 R A *firm* must be able to satisfy the *FSA* that it has adequate risk management processes to control ~~those~~ the risks to which the *firm* may be exposed as a result of carrying out *credit risk mitigation*. Those processes must include appropriate stress tests and scenario analyses relating to those risks, including residual risk and the risks relating to the intrinsic value of the *credit risk mitigation*.

[**Note:** *BCD* Annex VIII Part 2 point 1]

…

5.4.53 R A *firm* must take into account the illiquidity of lower-quality assets. The liquidation period must be adjusted upwards in cases where there is doubt concerning the liquidity of the collateral. A *firm* must also identify where historical data may understate potential volatility, e.g. a pegged currency. Such cases must be dealt with by means of ~~a~~ stress scenario assessments.

…

…

5.6.19A G This paragraph provides *guidance* in relation to *BIPRU* 5.6.19R(8). In carrying out the stress testing programme, a *firm* should evaluate the simultaneous impact of individual stress scenarios on its *counterparty exposures*, its *positions* and the aggregate amount of margin calls that it would receive. A *firm's* stress scenarios should take into account the possibility that the liquidation period may be substantially longer than 5 days for *repurchase transactions* and *securities lending* or *borrowing transactions*, and 10 days for other types of *securities financing transactions*.

…

Stress testing and scenario analyses of trading book positions

7.1.17 R A *firm* must conduct a regular programme of stress testing and scenario analysis of its *trading book positions*, both at the trading desk level and on a *firm*-wide basis. The results of these tests must be reviewed by senior management and reflected in the policies and limits the *firm* sets.

7.1.17A G The *firm's* stress testing programme should be comprehensive in terms of both risk and *firm* coverage, and appropriate to the size and complexity of *trading book positions* held.

7.1.18 R In carrying out the stress tests and scenario analyses required by *BIPRU* 7.1.17R, a *firm* must incorporate and take into account any other relevant stress tests and scenario analyses that it is required to carry out under any other provision of the *Handbook*, and in particular under *BIPRU* 7.10.72R where the *firm* has a *VaR model permission*.

7.1.19 G This paragraph gives *guidance* in relation to the stress testing programme that a *firm* must carry out in relation to its *trading book positions*.

(1) The frequency of the stress testing of *trading book positions* should be determined by the nature of the *positions*.

(2) The stress testing should include shocks which reflect the nature of the portfolio and the time it could take to hedge out or manage risks under severe market conditions.

(3) The *firm* should have procedures in place to assess and respond to the results of the stress testing programme. In particular, stress testing should be used to evaluate the *firm's* capacity to absorb losses or to identify steps to be taken by the *firm* to reduce risk.

(4) As part of its stress testing programme, the *firm* should consider how prudent valuation principles (see *GENPRU* 1.3) will be met in a stressed scenario.

7.1.20 G The stress testing and scenario analysis under *BIPRU* 7.1.17R should be taken into account under the *overall Pillar 2 rule*.

…

Risk management standards: Stress testing

7.10.72 R (1) A *firm* must frequently conduct a rigorous programme of stress testing. The results of these tests must be reviewed by *senior management* and reflected in the policies and limits the *firm* sets.

(2) The programme must particularly address:

…

(g) … ; ~~and~~

(h) ~~other risks that may not be captured appropriately in the *VaR model* (for example, recovery rate uncertainty, implied correlations and skew risk)~~ full revaluation, or a reliable approximation, of *positions*;

(i) instant shocks as well as effects of longer term periods of stress;

(j) calibration changes under stressed conditions;

(k) secondary risk factors (such as volatility);

(l) basis risk;

(m) systemic and localised stresses; and

(n) other risks that may not be captured appropriately in the *VaR model* (for example, recovery rate uncertainty, implied correlations and skew risk).

…

…

7.10.73A G The *firm's* stress testing programme should be comprehensive in terms of both risk and *firm* coverage, and appropriate to the size and complexity of *trading book positions* held.

…

9.1.8A G (1) The *FSA* expects *firms* to conduct regular stress testing in relation to their *securitisation* activities and off-balance sheet *exposures*. The stress tests should consider the *firm*-wide impact of those activities and *exposures* in stressed market conditions and the implications for other sources of risk, for example, credit risk, concentration risk, counterparty risk, *market risk*, *liquidity risk* and reputational risk. Stress testing of *securitisation* activities should take into account both existing securitisations and pipeline transactions, as there is a risk that these would not be completed in a stressed market scenario.

(2) The frequency and extent of the stress testing should be determined by the materiality of the *firm's securitisation* activities and off-balance sheet *exposures*.

(3) A *firm* should have procedures in place to assess and respond to the results produced from the stress testing and these should be taken into account under the *overall Pillar 2 rule*.

Annex E

Amendments to the Prudential sourcebook for Insurers (INSPRU)

In this Annex, underlining indicates new text and striking through indicates deleted text.

7.1.9A G This section sets out in greater detail the approach to be taken by a *firm* when carrying out the assessment of capital described in the preceding paragraph. This is the assessment referred to as an *individual capital assessment*. ~~The *rules* in *GENPRU* 1.2 also (see *GENPRU* 1.2.30R (1)(c)) require a *firm* to identify and assess risks to its being able to meet its *CRR* in the future.~~ <u>*GENPRU* 1.2.42R is a general requirement for a *firm* to carry out stress tests and scenario analyses taking into account an appropriate range of adverse circumstances and events relevant to the *firm's* business and risk profile and to estimate the financial resources it would need to continue to meet the *overall financial adequacy rule* in the stress scenarios considered. As part of its obligations under *GENPRU* 1.2.42R, the *firm* must carry out stress tests and scenario analyses to estimate the financial resources it would need to support its business plans and continue adequately to cover its *CRR* and meet the *overall financial adequacy rule* over a time horizon of 3 to 5 years.</u> This is a separate requirement from that to carry out an *ICA*, and *guidance* on this requirement is provided in *GENPRU* 1.2<u>.73AG</u>. In particular, *firms* should note that there is no requirement that the level of capital required as identified by the *ICA* should be equal to, or exceed, the *CRR*.

…

7.1.10 G ~~*GENPRU* 1.2.42R requires a *firm* to carry out stress tests and scenario analyses for each of the major sources of risk identified in accordance with *GENPRU* 1.2.30R~~. A *firm* may ~~also~~ ~~approach~~ ~~the assessment of the adequacy of its capital resources~~ <u>choose to carry out its *ICA*</u> in another way <u>than through the use of stress tests and scenario analyses</u>. The method should be proportionate to the size and nature of its business.

…

7.1.68 G ~~A~~ <u>Where a</u> *firm* ~~may choose~~ <u>chooses</u> to carry out ~~the assessment of the adequacy of capital resources~~ <u>its *ICA*</u> through the use of stress testing and scenario analyses ~~(noting that *GENPRU* 1.2.42R requires stress tests and scenario analyses to be undertaken to determine the overall financial adequacy of a *firm's* financial resources). Where used~~, such testing should reflect the potential range of outcomes for the risk being quantified, consistent with the prescribed confidence level for the *ICA*.