

MILLIMAN REPORT

Solvency II Under Review: Part 3

Long-term investment and updates to the Delegated Regulation

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1. Introduction

This paper is the third instalment in a series of publications which charts some of the more material changes that have been made to the detailed underlying rules of Solvency II since its implementation on 1 January 2016, as well as looking forward to potential changes that have already been highlighted by the European Commission (EC) and the European Insurance and Occupational Pensions Authority (EIOPA).

In Part 1 we revisited the rules underlying the specification of the risk-free rate term structure and in Part 2 we examined the Volatility Adjustment or VA. In this paper we analyse elements of the Standard Formula review that took place in 2018. We have previously issued a series of detailed briefing notes¹ on EIOPA's advice provided to the EC as part of the 2018 review of the Solvency II Delegated Regulation. Subsequently, on 8 March 2019 the EC published its final proposals² to amend the Delegated Regulation. Most of these changes are expected to become effective in 2019 following a period of scrutiny by the European Parliament and European Council.

For the most part the EC carried through EIOPA's advice and as such our earlier briefing note remains a relevant resource for a description of the upcoming changes. Many of the changes relate to simplifications and the application of proportionality in carrying out the Solvency II capital calculations.

In this paper, we highlight aspects where the EC did not fully reflect EIOPA's advice as well as analysing in more detail some of the changes of more of a quantitative nature in terms of the potential effects on insurers' and reinsurers' capital calculations. These items may prompt firms to reconsider their capital management and asset liability management activities in light of the changes. In particular, we analyse the impact of changes relating to the treatment of the following items that are elements stemming from the EC's wider Capital Markets Union (CMU) initiatives in promoting long-term investment by financial firms and extending the sources of capital available to companies, including small and medium-sized enterprises (SMEs), and to infrastructure projects:

- **Unrated debt** – covering investment in bonds and loans without a credit rating
- **Unlisted equity** – covering investment in direct equities as well as closed-end unleveraged alternative investment funds
- **Long-term equity investment** – covering investment in equities held for the long-term within a portfolio matching clearly identified liabilities

There have also been other Solvency II changes under the CMU agenda over 2016-2018 including the treatment of investments in infrastructure projects and infrastructure-related securities as well investments in securitisations. In Appendix 2, we briefly recap these items.

It is also noteworthy that the EC has signaled its intent to continue assessing the need for further actions to lessen financial services providers' (including insurers and reinsurers) focus on short-term investment through announcements it made in its Action Plan on Financing Sustainable Growth³. On the back of this EIOPA has been asked to provide an opinion on the impact on sustainable investments of prudential Solvency II rules by September 2019⁴.

2. Executive summary

The standard formula approach under Solvency II is used by most European insurance companies to calculate their required solvency capital. The EC has now finalised several important changes to the standard formula relating to the treatment of unrated debt, unlisted equity and long-term equity investment.

The EC has noted that there has been limited change to date in insurer investment behaviour based on the earlier CMU initiatives. It says the latest changes will make it easier for undertakings to invest in a wider range of equity and private debt. These changes are summarised as follows:

- New criteria that allow for bonds and loans for which a credit assessment by a nominated External Credit Assessment Institution (ECAI) is not available to be assigned to the credit quality step 2 or to the credit

¹ <http://ie.milliman.com/uploadedFiles/insight/2018/EIOPA-Second-Set-Advice.pdf>

² http://europa.eu/rapid/press-release_IP-19-1601_en.htm

³ https://ec.europa.eu/info/publications/180308-action-plan-sustainable-growth_en

⁴ <https://eiopa.europa.eu/Pages/About-EIOPA/Organisation/Sustainable-Finance-.aspx>

quality step 3 based on the insurance or reinsurance undertaking's own internal credit assessment. These amendments allow lowering the shock factor by up to 56% for spread risk.

- Where a (re)insurer is co-investing in a private debt issuance with another insurer, a credit institution or a financial institution, use of the co-investor's approved internal rating is allowed in the capital calculation for spread risk.
- A simplified calculation method for the spread risk module becomes possible for investment in unrated bonds and loans. This simplified method may be used if rated fixed-income instruments cover at least 80% of the debt portfolio. In this case, vanilla (fixed or callable and unstructured) securities not covered by a credit agency can be treated as BBB rated debt.
- Unlisted equity investments that meet certain specifications may be classified as Type 1 equities, leading to a base capital charge of 39%. These securities were previously classified as Type 2 equities, with a base capital charge of 49%.
- The new rules allow insurers to create a long-term equity portfolio with a capital charge of 22%. These equity investments must be held for more than 5 years amongst other criteria.

The EC is hopeful that these latest initiatives will bring a renewed interest in investment in equity and private debt by (re)insurers.

The changes may have varying impacts across the European insurance industry where greater or lesser use of equities and private debt may be relevant in certain territories and for certain product types. Effects may be seen in terms of capital requirements relating to assets held to cover unit-linked business as well as other insurer assets.

The amendments adopted by the EC on 8th March 2019 are subject to a scrutiny period of 3 months by the European Parliament and the Council. The new regulations will then enter into force 20 days after publication in the Official Journal of the European Union. At the time of writing this paper the ECON Committee of the European Parliament had signaled its intent not to raise objections and the new rules could well be in place for companies' Q2 2019 Solvency II reporting.

3. Solvency II review process

The Solvency II Directive (as amended by the Omnibus II Directive) includes a review clause (recital 60 of Omnibus II) inviting the EC to review the methods, assumptions and standard parameters used when calculating the Solvency Capital Requirement (SCR) with the standard formula within five years of application of the new regime (i.e. by the end of 2020). This review process has now commenced with the EC recently writing to EIOPA requesting its advice by 30 June 2020 on items that it has identified as deserving a reassessment. At Milliman we have published a briefing note describing the areas under review⁵.

Recital 150 of the Solvency II Delegated Regulation brought this review forward to the end of 2018 in respect of certain aspects of the Level 2 measures. The subject matter of this paper is mostly concerned with the 2018 Delegated Regulation review.

The Omnibus II Directive also includes a review clause relating to the Long Term Guarantee (LTG) measures specifying that these should be reviewed by the end of 2020. EIOPA's annual LTG Report forms a key input to the EC's considerations leading up to the 2020 review and we have provided further analysis of this process in our first and second parts of this series of papers.

4. 2018 review of the Delegated Regulation

The EC has recently adopted changes to the Solvency II Delegated Regulation following a review carried out over the course of the second half of 2017 and into 2018. In the context of this review, it sent two calls for technical advice to EIOPA. Following these requests, EIOPA undertook a series of industry consultations and published its advice to the EC covering the following areas:

1. **Proportionate and simplified application of the requirements** – in many cases, this means applying simpler formulae and reducing the burden on insurers to collect granular data. In particular the following elements were covered:

⁵ <http://ie.milliman.com/insight/2019/The-2020-Solvency-II-Review-and-update-on-earlier-amendments/>

- Simplification of the look-through approach
 - Simplification of the counterparty default risk module
2. **Removal of unintended technical inconsistencies** – related to the following elements:
- Reducing the reliance on external credit ratings in the standard formula
 - Treatment of concentration and counterparty risk in the SCR
 - Treatment in the SCR of holdings in related undertakings used as an investment vehicle
 - Adjustments to SCR in respect of loss-absorbing capacity of deferred taxes
 - A review of the risk margin calculation methodology
 - Treatment of guarantees, exposures guaranteed by a third party and exposures to regional governments and local authorities
 - Adjustments to SCR in respect of allowance for risk-mitigation techniques
 - Undertaking-specific parameters
 - Classification of own funds
 - Currency risk at group level
 - The mortality and longevity elements of the underwriting risk SCR
3. **Unjustified constraints to financing** – related to the following elements:
- Treatment of unrated debt in the SCR
 - Treatment of unlisted equity in the SCR

For the most part the EC carried through EIOPA's advice in formulating its final rule changes. One notable exception relates to the treatment of interest rate risk in the SCR. EIOPA proposed a number of changes on its own initiative that would have a material industry-wide impact on the level of required capital and the EC has decided against making any changes to this sub-module. It will be further analysed as part of the review of the full Solvency II framework scheduled for 2020. EIOPA estimated that its proposal would lead to a decrease in solvency ratios by 14 percentage points, ranging up to 75 percentage points in one Member State; according to the industry, this would represent a €200 billion increase in capital requirements EU-wide.

For the reasons set out in the introduction, in the remainder of this paper we describe the nature and potential impact of the changes relating to unrated debt, unlisted equity and long-term equity investments as set out in the revised rules adopted by the EC on 8 March 2019.

With respect to the treatment of unrated debt and unlisted equity, the rule changes cover circumstances and objective criteria when these important asset classes can be given the same treatment as rated debt and listed equity. On unrated debt, the criteria relate to certain financial ratios and to the yield of the debt (further covered in Section 4.1 below). On unlisted equity, the criteria relate to the underlying equity investments (further covered in Section 4.2 below).

The EC has also introduced a change in the treatment within the equity risk sub-module of the SCR relating to what it has defined as "long-term equity investments" (further covered in Section 4.3 below).

4.1 Unrated debt

This section covers the treatment of unrated debt in the spread risk sub-module of the SCR.

Investment in unrated debt by (re)insurers has been increasing in volume in recent times although still recognised as an area where further growth can be achieved. Private credit has several key characteristics that make it attractive from an investment proposition perspective including benefits such as a relatively low correlation with government bonds typically and the potential to earn an illiquidity premium for long-term holdings.

The EC has noted that engagement by (re)insurers in the private placement market is heterogeneous across Europe. France and Germany have the most well developed private placement markets in the EU. In France the private placement market is specifically designed to cater to the needs of institutional investors, and insurance companies account for about 80% of the investments. However, in Germany non-bank institutional investors in total make up only 5-15% of the investment base in the "Schuldschein" private placement market.

Under the CMU, the EC has been considering ways to promote issuance of, and investment in, unrated debt in a bid to make the capital markets more accessible to SMEs as an alternative source of financing to bank loans. For example, in setting the groundwork for establishing measures tackling market and regulatory obstacles to the development of private placement of debt in the EU, the EC carried out a detailed study in 2016⁶.

The EC's request for advice from EIOPA covered the following topics in relation to unrated debt:

“Delegated Regulation (EU) 2015/35 sets out specific risks factors for bonds and loans for which a credit assessment by a nominated external credit assessment institution (ECAI) is not publicly available. These risk factors stand currently at a level between risks factors applicable to bonds and loans with credit quality step 4 and risk factors applicable to bonds and loans with credit quality step 3.

...the risk factors already applicable to bonds and loans with an available credit quality step could be applied to other bonds and loans for which no credit assessment by a nominated ECAI is available, provided that they satisfy certain qualifying criteria.

... EIOPA is asked to provide clear and conclusive criteria applicable to bonds and loans for which no credit assessment by a nominated ECAI is available, in order to identify certain instruments, which would then be allowed to receive the calibration associated with credit quality step 2.”

In other words, the EC requested EIOPA to consider criteria under which unrated debt could be treated equivalently to rated debt of credit quality step 2 (noting that all unrated debt up to now has been treated as equivalent to somewhere between credit quality steps 3 and 4).

In its advice EIOPA set out criteria under which it considered unrated debt equivalent to credit quality step 3 in addition to the request in relation to credit quality step 2. The EC largely carried through EIOPA's advice on this matter.

Under the existing standard formula, the calculation of the capital requirement for spread risk on bonds and loans is based on risk factors applied to reduce the market value of the assets. These risk factors depend on the credit quality step (CQS) and the modified duration of the bond or loan. The higher the duration and the CQS, the higher the risk factor and the resulting capital requirement. CQS range from 0 to 6 and are assigned based on the credit assessments by one or more nominated ECAI.

The precise specifications are set out as follows (as per Article 176(3) of the Delegated Regulation):

Bonds or loans for which a credit assessment by a nominated ECAI is available shall be assigned a risk factor stress, depending on the credit quality step and the modified duration dur_i of the bond or loan i according to the following table.

Duration (dur_i)	stress _i	CREDIT QUALITY STEP											
		0		1		2		3		4		5 AND 6	
		a_i	b_i	a_i	b_i	a_i	b_i	a_i	b_i	a_i	b_i	a_i	b_i
Up to 5	$b_i \cdot dur_i$	n/a	0.9%	n/a	1.1%	n/a	1.4%	n/a	2.5%	n/a	4.5%	n/a	7.5%
More than 5 and up to 10	$a_i + b_i \cdot (dur_i - 5)$	4.5%	0.5%	5.5%	0.6%	7.0%	0.7%	12.5%	1.5%	22.5%	2.5%	37.5%	4.2%
More than 10 and up to 15	$a_i + b_i \cdot (dur_i - 10)$	7.0%	0.5%	8.4%	0.5%	10.5%	0.5%	20.0%	1.0%	35.0%	1.8%	58.5%	0.5%
More than 15 and up to 20	$a_i + b_i \cdot (dur_i - 15)$	9.5%	0.5%	10.9%	0.5%	13.0%	0.5%	25.0%	1.0%	44.0%	0.5%	61.0%	0.5%
More than 20	$\text{Min}[a_i + b_i \cdot (dur_i - 20); 1]$	12.0%	0.5%	13.4%	0.5%	15.5%	0.5%	30.0%	0.5%	46.5%	0.5%	63.5%	0.5%

⁶ https://ec.europa.eu/info/sites/info/files/180216-study-private-placements-summary_en.pdf

Where a credit rating is not available the methodology is currently as follows (as per Article 176(4) of the Delegated Regulation where debtors have not posted collateral):

Bonds and loans for which a credit assessment by a nominated ECAI is not available and for which debtors have not posted collateral that meets the criteria set out in Article 214 shall be assigned a risk factor stress_i depending on the duration dur_i of the bond or loan i according to the following table:

<i>Duration (dur_i)</i>	<i>stress_i</i>
<i>Up to 5</i>	<i>3% * dur_i</i>
<i>More than 5 and up to 10</i>	<i>15% + 1.7% * (dur_i - 5)</i>
<i>More than 10 and up to 20</i>	<i>23.5% + 1.2% * (dur_i - 10)</i>
<i>More than 20</i>	<i>Min[35.5% + 0.5% * (dur_i - 20);1]</i>

On this basis bonds and loans for which a credit assessment by a nominated ECAI is not available receive a treatment effectively between the risk factors applicable to bonds and loans with a CQS 3 and CQS 4.

So until now investments in bonds and loans without an attaching external credit rating have attracted a relatively high capital charge within the spread risk sub-module of the standard formula SCR. The capital charge is between the equivalent rated bond or loan with rating between A and BBB. The rules for deciding whether a credit rating by a nominated ECAI is available are set out in Article 5 of the Delegated Regulation.

The rule changes will now allow insurers to treat unrated debt within the spread risk sub-module in two possible ways:

1. as if it is equivalent to rated debt with credit quality step (CQS) 2 or 3, subject to a number of conditions using the undertaking's own internal credit assessment (details of this approach are described in Appendix 1 of this paper), or
2. using the equivalent CQS from a third party's approved internal ratings model (under Basel III rules for banks or Solvency II for insurers) where the third-party co-invests in the unrated bond or loan with the insurer. In its final rules the EC extended the definition of co-investor to include both banks and other insurers and reduced the minimum co-investor holding from 50% to 20% of the nominal value of each bond and loan.

The amendments effectively allow a lowering of the shock factor applied to unrated bonds and loans by up to 56% for spread risk (before taking into account diversification effects). The bonds and loans for which a credit assessment by an ECAI is not available and which do not meet the new criteria will still receive a treatment between CQS 3 and CQS 4.

From observing the tables above the gain in terms of capital savings is potentially significant: assuming a modified duration of 5 years, the pre-diversification capital charge would decrease from 15% of the asset value to:

- 7% if the issue can be mapped with a CQS of 2
- 12.5% if the issue can be mapped with a CQS of 3

Similarly for a 25 year duration exposure the pre-diversification capital charge changes from 38% to 18% and 32.5%, respectively.

EIOPA advised that the preferential treatment applicable to unrated debt should only be applicable to up to 5% of the total investments. However, this constraint is not carried through to the EC's final rules.

The revised treatment in question here relates only to investments in debt issued by corporate entities (non-financials) as there are already specific rules for other types of debt and loans, including:

- unrated qualifying mortgages, sovereign exposures and infrastructure project debt
- unrated bonds and loans issued by financials
- investments in securitisations, credit derivatives and covered bonds as well as exposures to particular entities such as the European Central Bank

In estimating the overall industry impact of the rule changes, it is difficult to obtain information on the current level of investment in unrated debt by insurers subject to Solvency II as unrated debt is not shown as a separate

classification in the quantitative reporting templates (QRTs). However, EIOPA has estimated that unrated debt issued by corporates outside the financial and real estate sectors represents a low single digit percentage of all investments by European insurers.

Information on the credit quality of unrated debt is also naturally difficult to obtain. The following table cited by EIOPA shows a possible distribution of rating categories based on a 2014 Bundesbank publication⁷ covering rated companies:

CQS	2	3	5	5 and 6
Proportion of rated debt	10%	40%	35%	15%

EIOPA says this distribution probably overestimates the credit quality of unrated debt as it is often issued by smaller scale entities in comparison to rated issuances.

EIOPA also estimates the pass-rates for the financial ratio and the yield criterion (see Appendix 1 for explanation of these items) ultimately concluding:

“Under the very strong assumptions described above for the credit quality distribution and the pass rates, a very conservative upper bound for the impact on the spread risk charge can be calculated: The spread risk charge for a portfolio of unrated debt with modified duration of 5 years would decrease from 15% to 12.6%. The actual decrease should be substantially smaller.”

In a recent publication⁸, Insurance Europe broadly supported the own internal credit assessment approach, which it views as being adequate overall and not overly complex. Insurance Europe also stated that the approach will work well for undertakings that invest directly in unrated debt and are already using similar criteria in their internal investment processes.

However, Insurance Europe expressed reservations about the approved internal model approach, saying it is not reflective of market reality, is overly restrictive and will not work in practice.

Furthermore, for investment in unrated debt through funds, Insurance Europe highlighted the potential difficulty in sourcing sufficient information on a look-through basis in order to satisfy the criteria under the new rules.

4.2 Unlisted equity

This section covers the treatment of unlisted equity in the equity risk sub-module of the SCR. The EC’s request for advice covered the following topics:

“...a lower risk factor could be extended to certain portfolios of unlisted equity, provided that they satisfy certain criteria.

... EIOPA is asked to provide clear and conclusive criteria applicable to portfolios of equity from the European Economic Area (EEA) which are not listed, in order to identify those instruments which could benefit from the same risk factor as listed equity.”

In its advice EIOPA suggested the application of criteria to determine whether unlisted equities qualify to be treated in the same way as listed equities (so-called “Type 1 equities”). Again the EC largely carried through EIOPA’s advice on this matter.

The existing standard formula for equity risk applies a 39% capital charge to Type 1 equities and a 49% capital charge to Type 2 equities as stated in Article 169 of the Delegated Regulation⁹. Unlisted equities are currently treated as Type 2 equities (other than strategic equity investments and equity investments in qualifying infrastructure), despite the fact that their risk profile may be similar to Type 1 equities.

⁷<https://www.bundesbank.de/resource/blob/666716/3c1b593a70d718ccd9925839d514e9a8/mL/2015-01-monatsbericht-data.pdf>

⁸https://www.insuranceeurope.eu/sites/default/files/attachments/Comments%20on%20amendments%20to%20Solvency%20II%20Delegated%20Regulation_0.pdf

⁹ Before allowance for the symmetric adjustment mechanism as referred to in Article 172 of the Delegated Regulation

EIOPA advised that objective criteria should be used to determine when unlisted equity holdings can be given the same treatment as listed equity, known as “qualifying unlisted equity”. The EC has adopted most of this advice as specified in the new Article 168a of the amended Delegated Regulation. Under the new rules qualifying unlisted equity holdings must be treated as a portfolio of investments. The criteria which must be satisfied to be considered as a qualifying unlisted equity portfolio are as follows:

- the set of investments consists solely of investments in the ordinary shares of companies
- the ordinary shares of each of the companies concerned are not listed in any regulated market
- each company has its head office in a country which is a member of the EEA
- more than 50% of the annual revenue of each company is denominated in currencies of countries which are members of the EEA or the OECD
- more than 50% of the staff employed by each company have their principal place of work in countries which are members of the EEA
- each company fulfils at least one of the following conditions for each of the last three financial years ending prior to the date on which the Solvency Capital Requirement is being calculated:
 - (i) the annual turnover of the company exceeds €10,000,000
 - (ii) the balance sheet total of the company exceeds €10,000,000
 - (iii) the number of staff employed by the company exceeds 50
- the value of the investment in each company represents no more than 10% of the total value of the set of investments
- none of the companies is an insurance or reinsurance undertaking, a credit institution, an investment firm, a financial institution, an alternative investment fund manager, a UCITS management company, an institution for occupational retirement provision or a non-regulated undertaking carrying out financial activities
- the beta of the set of investments does not exceed 0.796. The rules prescribe a particular formula to calculate the portfolio beta.

Given that the portfolio of equities must be considered as a whole then the beta of any individual holding could exceed 0.796 as long as the overall portfolio constraints above are satisfied.

The rule changes above only cover direct investments in unlisted equities. Therefore, the specifications do not cover investment in unlisted equity funds. Private equity investment through funds falls into the latter category as well as investment in closed-end investment companies. However, a further amendment to the Delegated Regulation already permits the classification of unleveraged funds established as Alternative Investment Funds (in accordance with Directive 2011/61/EU) as Type 1 equities, thereby attracting a 39% capital charge. Some private equity investment may fall within this category but in practice it is likely to be limited in volume. It seems that a wide range of private equity investments will still remain as Type 2 equities under the latest rule changes.

EIOPA advised that the preferential treatment applicable to qualifying unlisted equities should only be applicable to up to 5% of the total investments. However, this constraint is not carried through to the EC’s final rules.

According to EIOPA, data from the annual reporting to regulators shows that unlisted equities (other than strategic participations, investments in financials and equities backing unit-linked business) represent a low single digit percentage of all investments by European insurers. Given the small proportion of investments that can be considered and that there are several criteria and restrictions set out above that need to be met in order to qualify for the Type 1 equity charge, the reduction in the SCR across all European insurers may not be very large at the current time. Nonetheless EIOPA has previously remarked upon the shift from listed to non-listed equity in aggregate across EU insurers. By 2016 it found that approximately one-third of all equity investment by insurers (excluding unit-linked business) was unlisted¹⁰. Given the new appeal of unlisted equities from a capital perspective we may see an increased interest in the asset class.

In its recent publication cited above, Insurance Europe notes that while the rule changes may work well for insurers who invest directly in equity, it is significantly burdensome for insurers who invest in equity via funds because of the look-through requirements. Overall Insurance Europe expects the marginal impact of the capital reduction to be limited. It calls on the EC to envisage more ambitious steps on reviewing the capital treatment of equity in general.

¹⁰ https://eiopa.europa.eu/Publications/Reports/Investment_behaviour_report.pdf

4.3 Long-term equity investment

In its initially proposed Delegated Regulation amendments published on November 8 2018, the EC introduced a new class of investment called “long-term equity investment”. It had previously not included this set of investments in its Call for Advice to EIOPA. Following a four week public consultation on its proposals, the EC made some important changes to its proposals which are described below.

Article 169 now states that a 22% capital charge should be applied for long-term equity investment. Article 171a then provides a list of criteria that must be met by the portfolio constituting long-term equity investments summarised as follows:

- Clear identification of a subset of equities that are either listed in the EEA or are unlisted equities of companies in the EEA
- Inclusion of the sub-set in a portfolio of (diversified) assets
- The portfolio of assets is assigned to cover the best estimate of a portfolio of clearly identified obligations
- The assets and liabilities are identified, managed and organised separately, and the portfolio of assets cannot be used to cover losses arising from other activities
- The technical provisions within the portfolio of obligations only represent a part of the total technical provisions
- The average holding period of the equity investments within the sub-set exceeds 5 years
- The (re)insurer can hold equities within the sub-set, even under stressed conditions, for the next 10 years
- The written policies of the company reflect the intention to hold the portfolio on average for 5 years, and are compatible with the requirement to be able to avoid fire-sale over the next 10 years

In effect the new rules establish a mechanism for equities that is similar in concept to the treatment of a matching portfolio of fixed interest investments under the Matching Adjustment of Solvency II.

The text of Article 171a also states that an undertaking must fulfil the above conditions “to the satisfaction of the supervisory authority”. However, the EC has indicated this is not a form of pre-approval. In particular, in a Commission Staff Working Document¹¹ accompanying the Delegated Regulation amendments, it was stated by the EC “In order to limit obstacles to a quick implementation of the new asset class for long-term equity investments, the amendment to the Solvency II Delegated Regulation does not impose prior supervisory approval”. It remains to be seen how supervisory authorities will oversee undertakings’ use of the new class of investment in practice.

It is noteworthy that in the final rules the EC has made significant changes compared to its initial proposals. In particular:

- The requirement that the portfolio of equities is established as a ring-fenced fund has been removed.
- The required minimum average holding period of 12 years has been reduced to 5 years.
- Firms are now required to demonstrate their ability to hold the investments for 10 years avoiding forced sales under stressed conditions instead of 12 years previously.

These changes could be very attractive for certain undertakings and particular product types.

¹¹http://ec.europa.eu/finance/docs/level-2-measures/solvency2-delegated-regulation-2019-1900-swd_en.pdf

Appendix 1 – Own internal credit assessment

Under the new rules for the treatment of unrated debt in the SCR, insurers and reinsurers will be allowed to make their own assessment of credit risk subject to the following conditions on the particular investment (as specified in Article 176a of the amended regulation):

1. The particular bond or loan issue must rank as senior debt
2. The contractual terms and conditions of the bond or loan must provide for the following:
 - (i) the borrower is obliged to provide audited financial data to the lender at least annually;
 - (ii) the borrower is obliged to notify the lender of any events that could materially affect the credit risk of the bond or loan;
 - (iii) the borrower is not entitled to change the terms and conditions of the bond or loan unilaterally, nor to make other changes to its business that would materially affect the credit risk of the bond or loan;
 - (iv) the issuer is prohibited from issuing new debt without the prior agreement of the insurance or reinsurance undertaking;
 - (v) what constitutes a default event is defined in a way that is specific to the issue and the issuer;
 - (vi) what is to happen on a change of control;
3. A yield criterion must be passed i.e. the yield on the debt of the borrower does not exceed the yield observable in the market for rated debt with CQS 2 respectively CQS 3 by a too wide margin.

This means the yield on the bond or loan, and the yield on any bonds and loans with similar contractual terms and conditions issued by the same company in the previous three financial years, is no higher than the higher of the following values:

- (a) the average of the yields on two particular indices
- (b) the sum of 0.5% and the yield on a particular index

For CQS 2 and 3 equivalence the yield on the bond or loan, and the yield on bonds and loans with similar contractual terms and conditions issued by the same company in the previous three financial years, must be no higher than the higher of the following values:

- (a) the average of the yields on two particular indices
- (b) the sum of 0.5% and the yield on a particular index

For CQS 2 equivalence the two referenced indices must meet all of the following requirements:

- (a) both indices are broad indexes of traded bonds for which an external credit assessment is available
- (b) the constituent traded bonds in the two indices are denominated in the same currency as the bond or loan
- (c) the constituent traded bonds in the two indices have a similar maturity date as the bond or loan
- (d) one of the two indices consists of traded bonds of credit quality step 2
- (e) one of the two indices consists of traded bonds of credit quality step 4

For CQS 3 equivalence the two referenced indices must meet all of the following requirements:

- (a) both indices are broad indexes of traded bonds for which an external credit assessment is available
- (b) the constituent traded bonds in the two indices are denominated in the same currency as the bond or loan

- (c) the constituent traded bonds in the two indices have a similar maturity date as the bond or loan
- (d) one of the two indices consists of traded bonds of credit quality step 3
- (e) one of the two indices consists of traded bonds of credit quality step 4

Where the bond or loan has features, other than those related to credit risk or illiquidity, which materially differ from the features of the constituent traded bonds in the two indices, the insurance or reinsurance undertaking must also adjust the yield on the bond or loan to reflect those differences.

There are further criteria related to the issuing entity as follows:

1. It must be a limited liability company
2. It must have its head office in a country which is a member of the EEA
3. It must have more than 50% of its annual revenue denominated in currencies of countries which are members of the EEA or the OECD
4. It must have operated without any credit event over at least the last 10 years
5. At least one of the following conditions must be fulfilled with respect to each of the last three financial years ending prior to the date on which the Solvency Capital Requirement is being calculated:
 - the annual turnover of the company exceeds €10,000,000
 - the balance sheet total of the company exceeds €10,000,000
 - the number of staff employed by the company exceeds 50
6. The issuing entity must be outside the corporate group of the insurer or reinsurer making the investment
7. The issuing entity must not be an insurance or reinsurance undertaking, an infrastructure entity, a credit institution, an investment firm, a financial institution, an AIFM, a UCITS investment management company, an institution for occupational retirement provision or a non-regulated undertaking carrying out financial activities
8. The issuing entity must pass four financial ratio tests as follows:
 - (i) the sum of the company's annual earnings before interest, tax, depreciation and amortisation ('EBITDA') over the last five financial years is larger than 0
 - (ii) the total debt of the company at the end of the most recent financial year for which figures are available is no higher than 6.5 times the average of the company's annual free cash flows over the last five financial years
 - (iii) the average of the company's EBITDA over the last five financial years is no lower than 6.5 times the company's interest expense for the most recent financial year for which figures are available
 - (iv) the net debt of the company at the end of the most recent financial year for which figures are available is no higher than 1.5 times the company's total equity at the end of that financial year

Furthermore, in accordance with Article 176b, the process for the own internal credit assessment must take into account all factors which could have a material effect on the credit risk associated with the bond or loan, including the following factors:

- (i) the competitive position of the issuer;
- (ii) the quality of the issuer's management;
- (iii) the financial policies of the issuer;
- (iv) country risk;
- (v) the effect of any covenants that are in place;

- (vi) the issuer's financial performance history, including the number of years that it has been operating;
- (vii) the issuer's size and the level of diversity in its activities;
- (viii) the quantitative impact on the issuer's risk profile and financial ratios of its having issued the bond or loan;
- (ix) the issuer's ownership structure;
- (x) the complexity of the issuer's business model;

The own internal credit assessment must be documented and a regular review of the assessment must be carried out.

The possibility of categorising exposures under CQS 1 is not allowed based on EIOPA deeming there are very few unrated corporates with a risk similar to rated debt with CQS 1.

Appendix 2 – Prior changes to Delegated Regulation under CMU

The original Delegated Acts for Solvency II were set out in Regulation (EU) 2015/35 (known as the Solvency II Delegated Regulation) and became effective at the outset of Solvency II on 1 January 2016.

Subsequently there have been three sets of changes to the Delegated Regulation (prior to the 2018 review), all related to the CMU and the treatment of certain types of investments. These changes are summarised below.

1. Regulation (EU) 2016/467

The amended regulation introduced a new concept of 'qualifying infrastructure investments'. Insurers must hold a lower level of capital against their investment in these infrastructure projects. These changes became effective 2nd April 2016.

This initial change in effect only covered infrastructure investments carried out through special purpose vehicles (SPVs), with the exclusion of investment in infrastructure corporates. However, the treatment of infrastructure corporates was later addressed in the amendments introduced by Regulation (EU) 2017/1542 (see next section below).

Such SPVs should not perform any activities other than owning, financing, developing or operating infrastructure assets and the primary source of payments to debt providers and equity investors is the income generated by the assets being financed. The assets themselves must be physical assets, structures or facilities, systems or networks that provide or support essential public services.

For qualifying infrastructure investments made through bonds or loans there is a reduced capital charge in the form of the spread risk module of the SCR. Criteria must be fulfilled for such investments as set out in Article 164 of the amended Delegated Regulation including being limited to investment grade debt where rated or restricted to senior debt where unrated.

For example for a 20-year bond with a credit quality step 3, the revised calibration is a 20% risk factor instead of 30%. The effective reduction of the risk calibration compared with the previous risk calibration is over 30% for bonds of credit quality step 3.

For equity type qualifying infrastructure investments the capital charge is 30% subject to such investments fulfilling a number of criteria as set out in Article 164a of the amended Delegated Regulation. Otherwise most infrastructure project equities likely attract a 49% capital charge according to the Type 2 equity categorisation. For qualifying infrastructure equity investments the symmetric adjustment is also reduced by applying a factor of 77% to EIOPA's derived rate for the symmetric adjustment on Type 1 and 2 equities.

The amended regulation also allowed investments in European Long-Term Investment Funds (ELTIFs) to benefit from lower capital charges under Solvency II. This brought them in line with investments in European Venture Capital Funds and European Social Entrepreneurship Funds, which benefit from the same treatment as Type 1 equities i.e. a capital charge of 39%. ELTIF funds are primarily equity funds that invest particularly in unlisted companies needing long-term financing, including SMEs.

ELTIF funds can also invest in infrastructure investments. Following the Solvency II look-through approach qualifying infrastructure equities held in ELTIF funds benefit from a risk calibration of 30%.

Risk management rules also apply under Article 261a in respect of investment in qualifying infrastructure projects.

2. Regulation (EU) 2017/1542

The next amendment introduced more favourable capital treatment for qualifying infrastructure corporates. These changes became effective 15 September 2017.

Investment in qualifying infrastructure corporates can relate to debt investment or equity investment in an entity structured as a corporate where the substantial majority of the entity's revenues is derived from owning, financing, developing or operating infrastructure assets located in the EEA or the OECD. Further criteria are set out in Article 164b.

The debt related risk factor calibration for qualifying infrastructure corporates is reduced by 25% on average compared to the standard formula¹². The equity related risk factor calibration for qualifying infrastructure corporates is reduced by up to 27%. In particular, for equity investments that are of a strategic nature the shock to be applied is 22%. For other qualifying infrastructure corporate equities a stress factor of 36% applies whilst the standard symmetric adjustment should be multiplied by 92%.

For qualifying infrastructure corporate investment the same risk management rules apply under Article 261a as for qualifying infrastructure project investment.

Regulation (EU) 2017/1542 also made some changes to the criteria for qualifying infrastructure project investment as earlier introduced by Delegated Regulation (EU) 2016/467.

3. Regulation (EU) 2018/1221

In June 2018, the EC adopted a further amendment to the Delegated Regulation to make it easier for insurers to invest in simple, transparent and standardised (STS) securitisation. The changes aim to align the Solvency II framework with the harmonised rules on STS securitisation recently adopted by the EU and to ensure consistent prudential treatment of this asset class in the banking and insurance sectors.

These changes became effective 1 January 2019. The new rules:

- replace the current distinction between “type 1” and “type 2” securitisation with a distinction between STS and non-STS securitisation
- replace the sector-specific provisions on due diligence and risk retention with references to the harmonised STS framework
- introduce risk-sensitive capital requirements for senior and non-senior tranches of STS securitisation
- provide for transitional rules concerning investments in securitisation that were issued prior to application of the STS framework.

¹² https://ec.europa.eu/newsroom/fisma/item-detail.cfm?item_id=100410&utm_source=fisma_newsroom&utm_medium=Website&utm_campaign=fisma&utm_content=Infrastructure%20Corporates%20&lang=en



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