



# Transition to Solvency II

Newsletter January 2016



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## Introduction

This newsletter describes the effect on Tryg's solvency position from the introduction of Solvency II 1 January 2016. As shown below, the new solvency rules will have a significant impact on Tryg's capital position and financial flexibility. It should be highlighted that the Danish FSA has approved Tryg's internal model in November 2015 hence all numbers and considerations in this newsletter are with reference to our internal model.

The impact on the solvency position is driven by a reduction in the SCR (solvency capital requirement) and an increase in the capital base. The reduction in the SCR is driven by the inclusion of a deferred tax element while the increase in the capital base is driven by the inclusion of expected future profits slightly offset by the introduction of a new discounting curve. These changes took effect from 1 January 2016 (figure 1).

When assessing Tryg's future capital position, it is important to note that some of these new items are not of the same quality as shareholders' equity, additionally, the Danish FSA has stated that a level of 125% will result in additional supervision and

monthly inspections. The implementation of Solvency II will also result in an increased potential for issuing subordinated debt.

## Capital base (Own funds)

The implementation of Solvency II entails four new elements:

1. Expected future profits
2. Solvency II discounting curve
3. Risk margin on insurance provisions
4. Eligibility of own funds

The expected future profits and the Solvency II discounting curve will have a direct impact on Tryg's capital base whereas the risk margin is already implemented in Tryg's insurance provisions. The eligibility of own funds will not have an impact on Tryg's capital base but will increase the potential for issuing additional subordinated debt. Overall, the aforementioned elements will improve the capital base by DKK 0.4bn.

### Expected future profits (EFP)

The 'expected future profits' derives from the fact that Solvency II treats the premium reserve

differently than the existing legislation and current accounting standards. In the existing legislation, the value of the premium reserve is equal to the premiums written and not yet recognised as premium income by the company as they cover future risks.

Solvency II recognises that only a part of the written premiums are dedicated to cover the claims and other expenses steaming from the policy whereas the rest can be considered as 'future profits' for the company and therefore included in the capital base. As a high percentage of Tryg policies are renewed in January, the EFP will display some seasonality.

The EFP is calculated using the following (simplified) formula:

$$EFP = (1 - Tax) * (1 - COR_{expected}) * (Premium\ reserve\ IFRS + Premiums\ written\ next\ 2\ months)$$

Where

- $COR_{expected}$  is based on Tryg internal forecast

Tryg expects the EFP to be around DKK 0.6bn at its lowest level. This corresponds to a combined ratio assumption of approximately 90%. This amount will not be visible in Tryg's IFRS income statement or balance sheet.

### Solvency II discounting curve

Following the implementation of Solvency II, Tryg will move to new set of interest rate curves in regards to the discounting of the claims provisions (premium provisions will remain undiscounted).

Figure 1: Solvency II ratio walk

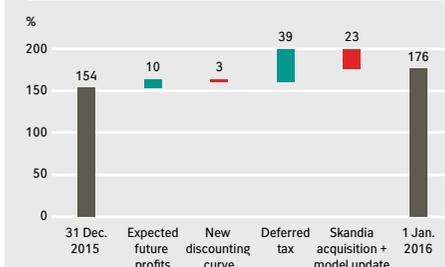
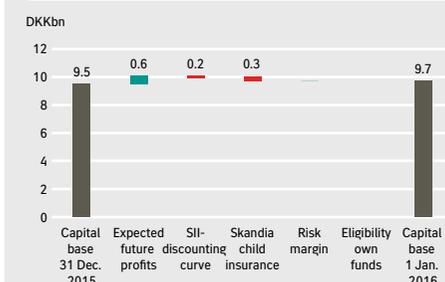


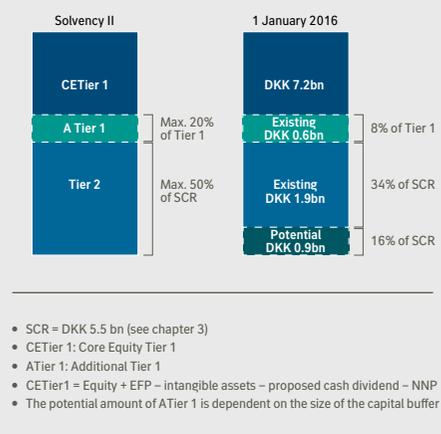
Figure 2: New elements in Solvency II capital base



The new interest curves are based on the EURO swap rates in Denmark and local swap rates in Norway and Sweden. The curves are adjusted for the credit risk inherent in the swap rates. The adjustment is limited in an interval between 0.1-0.35 percentage points.

The new interest rate curves are in general lower than the current curves, which follow local FSA rules. This will have a negative effect on both the IFRS equity (no effect on income statement) and the capital base with approximately DKK 0.2bn (after tax).

Figure 3: Solvency II capital levels



### Risk margin on insurance provision

Solvency II states that the valuation of provisions for insurance contracts (both premium and claims provisions) shall be based on a best estimate valuation plus a risk margin which should equal the capital cost associated with the portfolio.

The risk margin is already included in Tryg's provision for insurance contracts and will therefore not have any effect on Tryg's capital base.

### Eligibility of own funds

Solvency II divides the capital elements into different tiers (Tier 1-3) according to their degree of loss-absorbency and availability. The degree to which these can be included in the capital base is shown in figure 3.

The existing DKK 0.6bn in Additional Tier 1 consists of the subordinated loan (NOK 800m) issued

in 2013 which according to Solvency II can be grandfathered into Tier 1. The existing DKK 1.9bn of Tier 2 consists of the recently refinanced subordinated loan of DKK 1.1bn and the Natural Perils Pool of DKK 0.8bn. After the implementation of Solvency II, Tryg will have a potential for further Tier 2 capital of approximately DKK 0.9bn.

The potential for further ATier 1 is dependent on the level of the solvency ratio and the utilisation of the Tier 2 capacity. With the current solvency level and Tier 2 capital, Tryg will have a potential for DKK 0.9bn further ATier 1. Assuming a full utilisation of the Tier 2 capacity (the DKK 0.9bn in figure 3), the ATier 1 capacity will amount to the following:

S2 ratio	ATier 1 capacity
185%	DKK 0.85bn
180%	DKK 0.80bn
175%	DKK 0.75bn
170%	DKK 0.70bn

The legislation regarding the Natural Perils Pool (NNP) is still pending and a final implementation is expected in the beginning of 2016. The hearing draft of the legislation presented by the Norwegian authorities, however, presented a solution that will allow the Natural Perils Pool to count as capital in Solvency II. It is, however, still unclear whether a part of the Natural Perils Pool will be able to count as Tier 1 instead of Tier 2. If a part of the Natural Perils Pool is classified as Tier 1 then this will increase the potential for additional Tier 2 as shown in figure 3.

## Solvency capital requirement

Solvency II requires that an insurance company must have enough capital to cover a 200 years event at any time. A company can choose to use the standard formula specified in Solvency II or apply for an internal or partial internal model. Tryg has received an approval from the Danish FSA to use a partial internal model. This model is almost identical to the model that Tryg currently is using to model the individually solvency. The only difference is a minor model update where Tryg will use another set of correlation parameters for its Swedish business. The impact of this change is expected to be around DKK 0.25bn.

The implementation of Solvency II will, however, have a significantly effect on Tryg SCR due to the fact that from 1 January 2016, it was possible to utilise the loss absorbency effect from deferred tax and thereby reduce the solvency capital

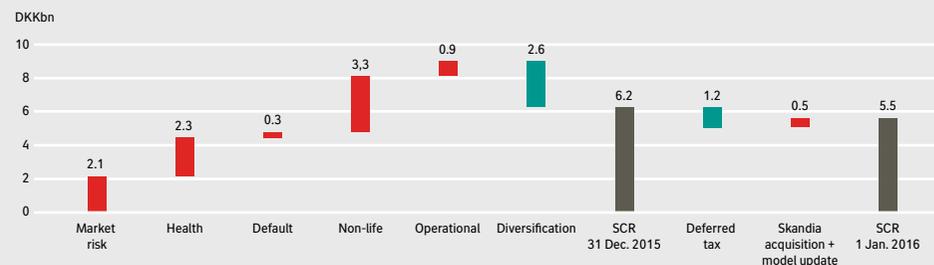
requirement. Finally the acquisition of the Skandia child insurance portfolio which is expected to be approved in H1 2016 will have a capital charge of DKK 0.2-0.25bn

### Deferred tax

Solvency II states that an insurance company shall adjust its solvency capital requirement with the effect from deferred tax from a 200 years event similar to one calculated in solvency capital requirement.

The adjustment is calculated on the basis of the distribution of the solvency capital requirement and the tax rates associated with the individually asset classes and business units. A part of the SCR derives from asset classes where a loss does not carry any deferred tax (equities and properties). This part constitutes approximately 15% of the SCR and does not contribute to the effect from deferred tax.

Figure 4: Solvency capital requirement (SCR) key components



The adjustment from deferred tax is calculated using the following (simplified) formula:

$$\text{Deferred tax adjustment} = \text{Tax average} * \text{SCR} * (1 - \text{non tax bearing part of SCR})$$

Where:

- Tax<sub>average</sub> is the average tax rate on Tryg's tax bearing part of the business

The results in the following calculations as per 1 January 2016:

$$\text{Deferred tax adjustment} = 23\% * 6.2\text{bn} * (100\% - 15\%) = 1.2\text{bn}$$

Before implementing the adjustment to the solvency capital requirement the company is required to document that it can utilise the deferred tax either in existing deferred tax liabilities or against probable future profits after the 200 years stress.



## Appendiks 1 Market risk module

Tryg is using the standard model from Solvency II to model the capital requirement on the Market risk module. This means that the capital requirements before diversification will be mostly based on the standard charges specified in Solvency II.

The equity charge is, however, based on both a fixed charge and a symmetric adjustment which is dependent on the development in "MSCI EUROPE AC".

The symmetric adjustment is based on the following formula:

$$\text{Symmetric adjustment} = \frac{1}{2} * \left( \frac{CI - AI}{AI} - 8\% \right)$$

Where:

- CI denotes the current value of MSCI EUROPE AC
- AI denotes the weighted average of the daily levels of the equity index over the last 36 months.
- The symmetric adjustment shall not be higher than 10% or lower than - 10%.

The Danish FSA publishes a daily update on the Symmetric adjustment. [Read more at \[finansstilsynet.dk\]\(http://www.finanstilsynet.dk\) > Tal-og-fakta > Oplysninger for virksomheder > Oplysningstal om forsikring og pension > Anticykliske aktiejustering.](http://www.finanstilsynet.dk)

Tryg's current investment strategy implies that the composition of the equity portfolio has a rela-

Figure 5: Solvency capital requirement (SCR) key components

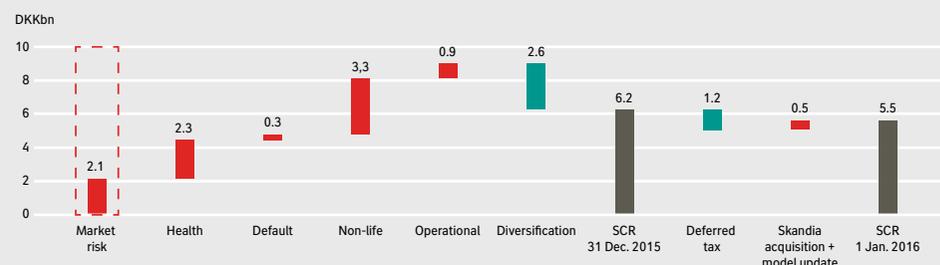
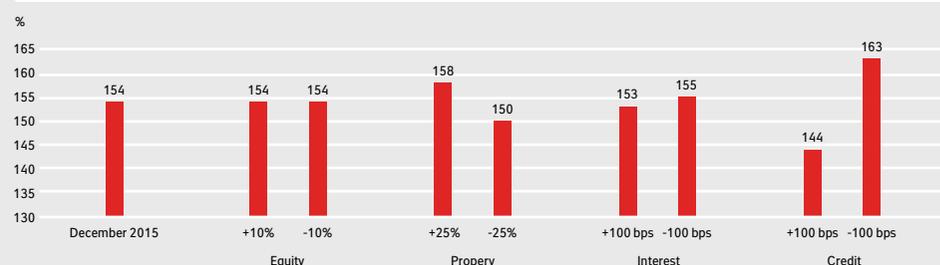


Figure 6: Solvency II ratio sensitivities



tive high correlation to the underlying index. This means that a loss in Tryg's portfolio will be almost identical mirrored by the underlying index guiding the Symmetric adjustment.

A loss in Tryg's equity portfolio will therefore have a negative effect on the capital base (decrease) and a positive effect on the SCR (decrease). A loss of 10% will under normal circumstances not have any effect on the solvency ratio.

As it is visible in the chart below, Tryg's Solvency is mostly sensitive to credit spreads movement and property prices fluctuations while equity markets spikes and interest rates moves do not affect the Solvency position in any meaningful way. The sensitivity to equity markets is very low for the reasons explained previously while the low sensitivity to interest rates is a function of our matching methodology which results in a low interest rate exposure.