

# SWEDBANK FÖRSÄKRING AB

## 2016 European Embedded Value

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## 1 Introduction

European Embedded Value (EEV) is a measure of the consolidated value of shareholders' interests in the covered business. EEV comprises the free surplus, required capital and value of in-force. The value of future new business is not included in EEV. The calculation of EEV is based on various economic and non-economic assumptions, such as swap rates, mortality rates, lapse rates and expenses. Further details of the various assumptions underlying EEV can be found in section 10.

The embedded value of Swedbank Försäkring AB (SFAB) has been calculated in accordance with the European Embedded Value Principles and Guidance published in May 2016 by the European Insurance CFO Forum. The required capital has been calculated based on the capital requirements under Solvency II as well as on internal objectives.

SFAB's EEV is based on a market consistent bottom up approach to EEV. An external review of the EEV has been carried out by Willis Towers Watson. Its opinion forms part of this report and can be found in section 12.

This report, which covers the reporting year 2016, is the fourth time that EEV has been published externally by SFAB.

## 2 Overview of results

- EEV of Swedbank Försäkring AB amounted to SEK 10 215m at year-end 2016 (year-end 2015: SEK 10 551m).
- The EEV earnings for 2016 were SEK 1 613 m, producing a 15% return on the opening EEV (year-end 2015: SEK 2 312m respectively 27%).
- The operating EEV earnings for 2016 were SEK 1 263m, resulting in an operating return of 12% (year-end 2015: SEK 2 024m respectively 24%).
- The value of new business written in 2016 was SEK 581m. The APE margin and PVNBP margin amounted to 24.5% and 3.8% respectively (year-end 2015: SEK 636m and 24.0% respectively 3.5%).

## 3 Covered business

The covered business includes all business written within and legally contained in Swedbank Försäkring AB with the exception of the non-life business and business where Swedbank acts as a distributor of third party insurance business (white-label products). The key types of products within the covered business are:

- Unit-linked and custody business
- Traditional business with a premium-back guarantee ('Traditional Pension Premium Guarantee')
- Traditional business with a step-up guarantee ('Traditional Pension')
- Long-term disability business
- Term insurance business
- Group Life business

## 4 EEV results

The reported EEV is split by net asset value (NAV) and value of in-force (VIF). The NAV comprises free surplus and required capital. The VIF comprises the present value of future profits (PVFP) in a certainty equivalent scenario, an allowance for the time value of options and guarantees (TVOG), frictional costs of

required capital (FC) and an allowance for the cost of non-hedgeable risks (CNHR). The following table shows the EEV at year-end 2016 and 2015 with its components:

<b>EEV results (SEKm)</b>	<b>2016-12-31</b>	<b>2015-12-31</b>	<b>Change</b>
<b>Net asset value</b>	<b>1 876</b>	<b>3 069</b>	<b>-1 192</b>
Free surplus	335	338	-3
Required capital	1 541	2 730	-1 189
<b>Value of in-force business</b>	<b>8 338</b>	<b>7 482</b>	<b>856</b>
Present value of future profits	10 902	9 765	1 136
Time value of options and guarantees	-121	-101	-20
Cost of non-hedgeable risks	-2 315	-1 983	-332
Frictional costs of required capital	-127	-200	72
<b>European Embedded Value</b>	<b>10 215</b>	<b>10 551</b>	<b>-336</b>

The EEV decreased from SEK 10 551m to SEK 10 215m. It should be noted that on 27 March 2017, SEK 550m was paid in dividends to the mother company Swedbank AB. The net asset value included in EEV is reported before this dividend. The main drivers of the change in EEV are explained below:

- Stock markets around the world had generally positive developments in 2016. During the first half of 2016 the global economy was weaker than expected in both developed and emerging countries but a recovery came during the summer and fall. Despite of Brexit and political instability, the economy in Eurozone grew steadily by 1.7%. The long-term interest rates fell sharply during the first half of the year, but rose later due to expectations for growth and inflation. Sweden showed a large growth in 2016. The Swedish krona fell against both EUR and USD in 2016. The long-term interest rates fell sharply during the first half of the year, but rose later due to expectations for growth and inflation. The 10 year Swedish swap rate decreased from 1.6% to 1.1% (-0.5%). Year to date the unit linked and the custody portfolio increased by 7.1% and 6.0% respectively. For traditional business, the investment performance was 2.9% and 1.9% for the step-up guarantee within occupational pension and other pension respectively. For the premium-back guarantee, the investment performance was 7.0% year to date. The economic variance on EEV including changes in interest rates and variance compared to actual investment returns amounted to SEK 294m.
- Value of new business amounted to SEK 581m, which is less than previous year (SEK 636m). The decrease is driven by lower sales volumes which were also generally experienced in the life insurance market in the beginning of 2016.
- Positive non-economic experience variance of SEK 237m is another driver of the change in EEV. The positive experience variance stems mainly from positive persistency experience.
- Assumption changes sums up to SEK 131m and consists of changes in lapse rates (SEK 218m), commissions (SEK 132m) and mortality for group life business (SEK 76m), offset by changes in sickness rates (SEK -108m), asset management fees and kickbacks (SEK -94m), cost of non-hedgeable risks (SEK -54m) and other changes (SEK -18m).
- The change in net asset value over the period is mainly driven by dividends paid to the parent company (SEK -1 700m) and group contributions (SEK -200m).

According to the EEV Principles, profits or losses to service companies for managing the covered business are to be valued on a look-through basis. The present value of look-through profits arising in the asset management companies within Swedbank Group is SEK 579m post tax as at year-end 2016 (year-end 2015: SEK 505m).

Total IFRS equity of SFAB at year-end 2016 amounted to SEK 2 149m (year-end 2015: SEK 3 289m), with the amount allocated to covered business of SEK 1 876m (year-end 2015: SEK 3 069m), reflected in EEV results above.

An implied discount rate (IDR) of 6.0% at year-end 2016 has been derived for SFAB (year-end 2015: of 5.8%). The approach for deriving the IDR is described in section 9.

## 5 Value of new business

The value of new business (VNB) represents the value added from new business sold in the year. VNB is calculated at the valuation date with opening economic assumptions and closing non-economic assumptions. New business is defined as the sale of new contracts and increases to existing contracts during the reporting period. Only increases above levels already accounted for in the value of in-force are taken into account. VNB includes the value of expected renewals on those new contracts and expected future contractual alterations to those new contracts.

The following table shows the value of new business written in 2016:

<b>Value of new business (SEKm)</b>	<b>2016-12-31</b>	<b>2015-12-31</b>	<b>Change</b>
Value of new business	581	636	-55
New sales (APE)	2 370	2 652	-282
New business margin (%APE)	24.5%	24.0%	0.5%
Present value of new business premium (PVNBP)	15 160	18 005	-2 845
New business margin (%PVNBP)	3.8%	3.5%	0.3%

In addition to VNB, the table above shows annual premium equivalent (APE) and present value of new business premiums (PVNBP). These measures are defined in section 9. The drivers for the change in new business sold in 2015 and 2016 are shown in the following table.

<b>Opening APE Profit margin</b>	<b>24.0%</b>
Change in volume	0.0%
Change in business mix	1.9%
Change in assumptions	-1.4%
<b>Closing APE Profit margin</b>	<b>24.5%</b>

The change in business mix (+1.9%) stems mainly from a higher proportion of occupational pension and endowment products. The change in assumption (-1.4%) is mainly driven by increase in sickness rates along with changes in commissions and kickbacks, partly offset by lower mortality rates and lapses for Group Life business and savings business respectively.

The internal rate of return for the new business amounts to 39.9% (year-end 2015: 21.1%). The increase in internal rate of return is mainly due to the revised methodology for determining the required capital following the transition to Solvency II and to changes in the commission model for occupational pension products. The IDR for VNB in 2016 was derived to 5.2% (year-end 2015: 4.4%).

## 6 Analysis of EEV earnings

The following table shows the movements in EEV from year-end 2015 to year-end 2016.

<b>Analysis of EEV earnings (SEKm)</b>	<b>Free surplus</b>	<b>Required capital</b>	<b>VIF</b>	<b>EEV</b>
<b>Opening EEV</b>	<b>338</b>	<b>2 730</b>	<b>7 482</b>	<b>10 551</b>
Opening adjustments	0	0	0	0
<b>Adjusted opening EEV</b>	<b>338</b>	<b>2 730</b>	<b>7 482</b>	<b>10 551</b>
Value of new business	-165	95	651	581

Expected existing business contribution (reference rate)	-2	-5	158	152
Expected existing business contribution (in excess of reference rate)	0	0	144	144
Transfers from VIF and required capital to free surplus	877	-93	-784	0
Experience variances	-16	63	191	237
Assumption changes	10	-10	131	131
Other operating variance	0	0	18	18
<b>Operating EEV earnings</b>	<b>704</b>	<b>50</b>	<b>509</b>	<b>1 263</b>
Economic variances	-140	143	292	294
Other non-operating variances	1 382	-1 382	55	55
<b>Total EEV earnings</b>	<b>1 945</b>	<b>-1 189</b>	<b>856</b>	<b>1 613</b>
Closing adjustments	-1 949	0	0	-1 949
<b>Closing EEV</b>	<b>335</b>	<b>1 541</b>	<b>8 338</b>	<b>10 215</b>

- **Opening EEV** is the EEV at year-end 2015. The required capital has been determined as 130% of solvency 1 margin.
- **Opening adjustments** were not made for this reporting period.
- **Adjusted opening EEV** is calculated as the sum of the EEV at year-end 2015 and the opening adjustments.
- **Value of new business** as shown in the EEV earnings of SEK 581m includes the unwinding to year-end 2016. The negative contribution to free surplus from new business amounts to SEK -165m and is due to required capital (SEK -95m) and profits on new business during the reporting period mainly consisting of the acquisition costs.
- **Expected existing business contribution (reference rate)** reflects the unwinding of the discounting on the VIF with the opening reference rate. Additionally, the release of the allowance for TVOG and CNHR for 2016 and the risk-free return on the components of the net asset value are also included.
- **Expected existing business contribution (in excess of reference rate)** reflects the additional return on the opening EEV expected by the management during the reporting period based on real world investment returns described in section 10.1.4.
- **Transfers from VIF and required capital to free surplus** reflect expected profits that were included in the VIF at the previous year-end and expected to be transferred into the free surplus over the reporting period. The total impact on the EEV earnings is zero.
- **Experience variances** result from deviations between actual and expected profits regarding operational and demographic assumptions such as mortality, lapses and expenses. The experience variance of SEK 237m was mainly driven by lower than expected lapses (SEK 158m) from savings business and mortality from the group life business (SEK 61m).
- **Assumption changes** are defined as changes from year-end 2015 to year-end 2016 of non-economic assumptions. The assumption changes of SEK 131m are a result of changes in lapse rates (SEK 218m), commissions (SEK 132m) and mortality for group life business (SEK 76m), partly offset by changes in sickness rates (SEK -108m), asset management fees and kickbacks (SEK -94m), CNHR (SEK -54m) and other changes (SEK -18m).
- **Other operating variances** denote model improvements and corrections. In 2016 this impacted the VIF by SEK 18m and stems mainly from a correction regarding the sharing of reinsurance profits for long-term disability business.
- **Operating EEV earnings** is the sum of the earnings items listed above.
- **Economic variances**, which amounts in total to SEK 294m, include the deviations between actual and expected investment return (SEK 445m) and the effect of changing the economic assumptions from the start of the year to the end of the year (SEK -151m). The change in economic assumptions results in an increase in the time value of options and guarantees mainly due to lower long interest rates.

- **Other non-operating variances** reflect the change in frictional cost following the transition to Solvency II required capital (SEK 55m).
- **Total EEV earnings** are calculated as the sum of operating EEV earnings, economic variances and non-operating variances.
- **Closing adjustments** amount in total to SEK -1 949m, mainly reflecting dividends paid to the parent company (SEK -1 700m) and group contributions (SEK -200m).
- **Closing EEV** is the EEV for SFAB at year-end 2016.

## 7 Sensitivities

The following table shows the sensitivity to important financial market parameters and to operational and demographic assumptions of the EEV and of the VNB respectively.

Sensitivities of EEV (SEKm)	EEV	Change	Change in %
<b>Base value</b>	10 215		
1. 100 basis points increase of interest rates	10 421	207	2%
2. 100 basis points decrease of interest rates	9 770	-444	-4%
3. 10% fall in equity market values	9 649	-566	-6%
4. 25% multiplicative increase in implied swaption volatilities	10 142	-73	-1%
5. 25% multiplicative increase in implied equity volatilities	10 196	-19	0%
6. 10% proportionate decrease in lapse rates	10 590	376	4%
7. 10% decrease in future administration expenses	10 744	529	5%
8. 5% decrease in mortality rates for products with mortality risk	10 496	281	3%
9. 5% decrease in mortality rates for products with longevity risk	9 964	-251	-2%

Sensitivities of VNB (SEKm)	VNB	Change	Change in %
<b>Base value</b>	581		
1. 100 basis points increase of interest rates	570	-11	-2%
2. 100 basis points decrease of interest rates	589	8	1%
3. 10% fall in equity market values	583	2	0%
4. 25% multiplicative increase in implied swaption volatilities	581	0	0%
5. 25% multiplicative increase in implied equity volatilities	581	0	0%
6. 10% proportionate decrease in lapse rates	639	58	10%
7. 10% decrease in future administration expenses	614	33	6%
8. 5% decrease in mortality rates for products with mortality risk	600	19	3%
9. 5% decrease in mortality rates for products with longevity risk	574	-7	-1%

- **Sensitivity 1:** A parallel shift upwards of 100 basis points is applied to the observed market swaps rates and the reference rate is then constructed as described in section 10.1.1. Inflation rates are assumed to be unchanged in the stress as the real interest yield curve is adjusted accordingly.
- **Sensitivity 2:** A parallel shift downwards of 100 basis points is applied to the observed market swaps rates and the reference rate is then constructed as described in section 10.1.1. Inflation rates are assumed to be unchanged in the stress as the real interest yield curve is adjusted accordingly. Where applicable, risk free interest rates are allowed to fall below 0% in this sensitivity.
- **Sensitivity 3:** A 10% decrease in market values of all equity holdings at the valuation date.
- **Sensitivity 4:** A 25% multiplicative increase in implied swaption volatilities.
- **Sensitivity 5:** A 25% multiplicative increase in implied equity volatilities.
- **Sensitivity 6:** A permanent 10% proportionate decrease in lapse rates.
- **Sensitivity 7:** A 10% decrease in future administration expenses.
- **Sensitivity 8:** A permanent 5% proportionate decrease in mortality rates for products exposed to mortality risk.
- **Sensitivity 9:** A permanent 5% proportionate decrease in mortality rates for products exposed to longevity risk. The sensitivity is shown before management actions, whereas it was shown after management action in last year.

## 8 Reconciliation of IFRS equity to EEV net asset value

The following table shows a reconciliation of the IFRS equity to EEV net asset value for the life insurance business at year-end 2016:

Reconciliation (SEKm)	
IFRS equity	2 149
Adjustments for non-covered business (non-life & white-label products)	-156
DAC and other intangible assets	0
Goodwill	0
Adjustments for reinsurance recoverable	-117
<b>EEV Net asset value</b>	<b>1 876</b>

## 9 Methodology

**European Embedded Value (EEV)** is the present value of shareholders' interests in the earnings distributable from assets allocated to the covered business after sufficient allowance for the aggregate risks in the covered business. The EEV consists of the following components:

- Free surplus allocated to the covered business
- Required capital
- Value of in-force business (VIF)

The VIF comprises the present value of future profits (PVFP) in a certainty equivalent scenario, an allowance for the time value of options and guarantees (TVOG), frictional costs of holding required capital (FC) and an allowance for cost of non-hedgeable risks (CNHR).

SFAB's EEV is based on a market consistent bottom-up approach to EEV.

**EEV earnings** are defined as the change in EEV before capital movements and dividends. The EEV earnings are split between the expected return (unwinding of discounting and excess return above the reference rate), value of new business, experience variances, assumption changes, other operational variances, economic variances and other non-operating variances.

**EEV operating earnings** are defined as EEV earnings excluding economic variances and non-operating variances.

**Covered business** is the business written within and legally contained in SFAB. The non-life business and business where Swedbank acts as a distributor of third party insurance business are excluded from covered business.

**Value of New Business (VNB)** reflects the additional value to shareholders created through the activity of writing new business. New business is defined as the sale of new contracts and increases to existing contracts during the reporting period. Only increases above levels already accounted for in the value of in-force are taken into account. VNB includes the value of expected renewals on those new contracts and expected future contractual alterations to those new contracts.

VNB is calculated after allowing for TVOG, FC and CNHR using opening economic assumptions and closing operating and demographic assumptions. VNB is valued after tax at the valuation date.

**Net Asset Value** is defined as the market value of assets allocated to the covered business in excess of statutory policy reserves and other liabilities at the valuation date. It is made up of the required capital and free surplus.

**Required Capital** is the portion of assets held in excess of statutory liabilities whose distribution to shareholders is restricted in order to meet insurance obligations. Following the transition to Solvency II, SFAB has determined the required capital as the amount of eligible own funds above the value of future profits, i.e. mainly the shareholder equity, needed in the business to comply with all internal and external requirements, under a set of stressed scenarios.

**Free Surplus** is calculated as the net asset value less the required capital.

**Value of In-Force (VIF)** is defined as the present value of future profits (PVFP) less the time value of options and guarantees (TVOG) less the frictional cost of holding required capital (FC) less the cost of non-hedgeable risks (CNHR).

**Present Value of Future Profits (PVFP)** is the certainty equivalent present value of future profits under a single scenario, reflecting future cash flows arising from the existing covered business. Risk-free rates are used for the investment yield assumptions and the discount rates. The intrinsic value of options and guarantees is included in the certainty equivalent present value of future profits.

The stream of future after-tax profits is determined using best estimate assumptions for future operating conditions regarding such items as expenses, taxation, lapses and mortality rates.

**Time Value of Options and Guarantees (TVOG)** is derived as the difference between the average PVFP based on the future cash flows under 3 000 risk-neutral scenarios and the certainty equivalent PVFP.

TVOG is evaluated for SFAB's products with guarantees. Allowance is made for management actions in the stochastic scenarios, including dynamic asset allocation in accordance with the dynamic asset strategy adopted by SFAB and the collectivisation of the financial risk for policies with a collective conditional bonus fund.

**Frictional Cost of holding required capital (FC)** reflects the taxation on expected return and the frictional investment management costs in relation to the required capital. Frictional investment management costs are set to zero since the assets covering required capital is held at a deposit account at Swedbank AB at zero cost.

**Cost of Non-Hedgeable Risks (CNHR)** is an allowance for non-hedgeable risks not already reflected in the TVOG or PVFP. The EEV Principles require sufficient allowance to be made for the aggregate risks in the covered business and sufficient allowance for certain risks may not have been made within the PVFP, TVOG and FC. These include an allowance for uncertainty in the best estimate of the cash flows related to non-hedgeable risks, including lapse, expense, mortality, longevity and catastrophe (CAT) risk. The CNHR also includes allowance for the illiquidity of the Swedish swap market.

The allowance for CNHR has been made by using a cost of non-hedgeable risk capital approach for the reflected risks. The risk capital has been derived using stress scenarios from SFAB's internal economic capital model with aggregation of risk capitals using correlations to allow for diversification between the risks. SFAB's economic capital model uses similar but not identical stress scenarios and correlations as used in the Solvency II standard model. No allowance is made for diversification between non-hedgeable and hedgeable risks, nor between covered and uncovered business. Future management actions are allowed for in the longevity risk stress where it is assumed that the pricing basis would be adjusted following a longevity shock. The risk capital relating to the illiquidity of the Swedish swap market is calculated by shifting the illiquid part of the yield curve. Future risk capitals are estimated using selected risk drivers. The cost of capital charge is set to 4.0% per annum.

**The certainty equivalent scenario** is a single deterministic scenario where it is assumed that all assets earn the risk-free rate of return and all cash flows are discounted with the risk-free rate.

**Look-through adjustments** for SFAB are expected future profits arising in Swedbank's asset management company which stem from SFAB's covered business. These expected profits are allowed for in the EEV and VNB (referred to in the EEV Guidance as a "look through" basis). The value of the look-through profits are stated in section 4.

**Reinsurance** has not been considered in the valuation of savings business since there are only immaterial amounts of reinsurance within SFAB's covered business.

**Annual Premium Equivalent (APE)** is a measure for new sales for insurance companies and is defined as the sum of the regular premiums and 10% of the single premiums stemming from new businesses sold during the reporting period.

**Present Value of New Business Premiums (PVNBP)** is a measure for new sales and is calculated as the sum of single premiums and the present value of regular premiums. The present value of regular premiums is calculated in accordance with VNB using opening economic assumptions and closing operating and demographic assumptions.

**Implied Discount Rate (IDR)** is defined as the single discount rate which, when applied to a deterministic projection of future shareholder distributable profits using real world economic assumptions as described in section 10.1.4, results in the same value as the one which is produced in accordance with the methodology and assumptions used for calculating SFAB's EEV results.

**Internal Rate of Return (IRR)** is derived as the single discount rate which, when applied to a deterministic projection of future shareholder distributable profits arising from new business sold in the reporting period using real world economic assumptions as described in section 10.1.4, results in a discounted value of zero.

## 10 Assumptions

### 10.1 Economic assumptions

#### 10.1.1 Risk-free reference rate

The risk-free reference rates used for calculating the EEV at year-end 2015 and 2016 have been derived according to the following approach:

- The reference rate is based on Swedish swap rates.
- Swap market interest rates are applied from the liquid part of the risk-free interest rate curve up to the last liquid point (LLP) of 10 years. SFAB does not consider the quoted swap rates beyond 10 years as liquid. No adjustment is made for credit risk or liquidity premium.
- The ultimate forward rate (UFR) is set to 4.2% and the convergence period between the LLP and UFR is set to 50 years. The last observable market point is 30 years.

The reference rate between the LLP and the last observable market point is calculated as a weighted average of implied forward rates from observed market swap rates and the extrapolated forward rate using the Smith Wilson extrapolation technique, where weights decrease linearly between the LLP and the last observable market point. The impact of using a LLP of 30 years compared to using a LLP of 10 years is immaterial on EEV and VNB.

The table below shows the model risk-free reference spot rate curve:

Spot reference rate curve	1	2	5	10	20	30
2015-12-31	-0.3%	-0.1%	0.7%	1.7%	2.5%	2.9%
2016-12-31	-0.5%	-0.3%	0.3%	1.1%	2.0%	2.5%

### 10.1.2 Calibration of economic scenarios

An economic scenario contains information regarding equity and bond returns, yield curves and inflation rates under a defined projection horizon. The time value of options and guarantees has been calculated based on simulated market consistent economic scenarios. Market consistent scenarios are calibrated to fit market prices at the valuation date. The economic scenario generator (ESG) and the calibration used for generating the market consistent economic scenarios have been provided by Moody's Analytics. The model parameters are calibrated to fit key economic assumptions at valuation date, such as initial yield curve, implied swaption volatilities, implied equity volatilities for relevant equity indices and correlations between asset classes. For estimating the time value of options and guarantees, 3 000 scenarios have been used.

Interest rates are modelled using a so-called Libor Market Model Plus (LMM+). The calibration of LMM+ requires market implied volatilities for at-the-money swaptions for different terms and tenors, as well as market implied volatilities for out-of-the-money swaptions with a 10-year tenor.

The table below shows model implied volatilities for different terms based on market implied volatilities of at-the-money swaptions with a 10-year tenor.

At-the-money swaptions with a 10-year tenor	1	2	5	10	20	30
2015-12-31	0.91%	0.93%	0.94%	0.90%	0.73%	0.58%
2016-12-31	0.76%	0.78%	0.80%	0.79%	0.67%	0.56%

The interest rate model used for calculating the EEV has been calibrated to absolute swaption implied volatilities using a model that assumes that the underlying swap rates exhibit a normal distribution.

Equity prices are simulated using a time varying deterministic volatility model. The equity model has been calibrated to forward implied volatilities on at-the-money OMX30 options. In the calibration, a parametric form has been used to fit the entire term structure of volatilities which also was adjusted for stochastic interest rate effect. The specific model long term excess volatility was calibrated to 21.1% and 22.9% in year-end 2016 and year-end 2015, respectively.

### 10.1.3 Inflation

Price inflation rates have been set equal to the difference between nominal risk-free reference interest rates and real interest rates. The real interest rates are based on market data and have been extrapolated consistently with the risk-free reference rates. In addition salary inflation affects premiums within corporate pension scheme business and maintenance expenses which in part stem from salary expenses. The salary inflation above price inflation is 2.0% and premiums on occupational pension schemes are inflated at this rate. Inflation of maintenance expenses is equal to price inflation plus 0.8% reflecting that part of the expense is inflated at price inflation and part is inflated at salary inflation.

### 10.1.4 Real world assumptions

Real world assumptions are used in the EEV earnings analysis for calculating the expected existing business contribution in excess of reference rate and for the derivation of IDRs and IRRs. The following risk premiums have been added to the risk-free reference rates used in the certainty equivalent projection:

Corporate bonds	0%
Equity	3%

Investments of SFAB in real estate are immaterial.

## 10.2 Non-economic assumptions

### 10.2.1 Expenses

Assumptions on maintenance, acquisition and claims handling expenses are set by considering past, current and expected future experience. Productivity gains are not included beyond what has been achieved by the end of the experience period. All expenses incurred have been allocated between products into acquisition, maintenance and claims expenses in accordance with the activity-based costing analysis recently performed by SFAB. Expenses are translated into per policy costs and are subject to salary inflation.

### 10.2.2 Demographic

The assumptions for surrenders, paid up and premium reduction rates are based on company experience. The assumptions for best estimate mortality for savings business are based on the mortality investigation Dödlighetsundersökning 2014 (DUS14), which was carried out by a working group established by the Research Council for Actuarial Science (Försäkringstekniska Forskningsnämnden (FTN)), adjusted for SFAB's company experience. For Group Life business, the mortality assumption is solely based on internal experience. Morbidity assumptions include assumptions on recovery rates and sickness rates, and have been determined based on company experience.

### 10.2.3 Tax

Tax regulations specify company tax of 22% on returns on shareholder capital and on profits from risk business.

## 11 Statement of the Board of Directors

The Board of Directors of SFAB confirms that the EEV as at 31 December 2016, and the EEV earnings including the value added by new business in 2016, have been determined using methodology and assumptions which are compliant with EEV Principles and Guidance.

The EEV results have been approved by the Board of Directors of SFAB.

## 12 Willis Towers Watson Opinion

"Willis Towers Watson has reviewed the methodology and assumptions used to determine the 2016 embedded value results of the Swedbank Försäkring AB (SFAB). The review covered the embedded value as at 31 December 2016, the value of 2016 new business, the analysis of movement over 2016 and the sensitivities shown on the embedded value.

Willis Towers Watson has concluded that the methodology and assumptions used, together with the disclosure provided in this document, comply with the EEV Principles and Guidance, and in particular that:

- the methodology makes allowance for the aggregate risks in the covered business through the methodology as described in this supplementary disclosure document, which includes a stochastic allowance for the cost of financial options and guarantees, an allowance for the frictional cost of holding required capital and an allowance for the cost of non-hedgeable risks using a cost of capital methodology;
- the operating assumptions have been set with appropriate regard to past, current and expected future experience;

- the economic assumptions used are internally consistent and consistent with observable, reliable market data; and
- for participating business, the assumed bonus rates and the allocation of profit between policyholders and shareholders are consistent with the projection assumptions, established company practice and local market practice.

Willis Towers Watson has also performed limited high-level checks on the results of the calculations and has confirmed that any issues discovered do not have a material impact on the disclosed embedded value as at 31 December 2016, the value of 2016 new business, analysis of movement over 2016 and sensitivities. Willis Towers Watson has not, however, performed detailed checks on the models and processes involved.

In arriving at these conclusions, Willis Towers Watson has relied on data and information provided by SFAB. This opinion is made solely to SFAB in accordance with the terms of Willis Towers Watson's engagement letter. To the fullest extent permitted by applicable law, Willis Towers Watson does not accept or assume any responsibility, duty of care or liability to anyone other than SFAB for or in connection with its review work, the opinions it has formed, or for any statement set forth in this opinion."

## 13 Disclaimer

The EEV results includes statements of future expectations that are based on SFAB's current view and assumptions which are exposed to known and unknown risks that could cause actual results to differ materially from those expressed herein. SFAB assumes no obligation to update any forward-looking statement nor any information contained herein.