DNB Livsforsikring AS

A company in the DNB Group

2017

Solvency and Financial Condition Report (Extract)

DNB

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INTRODUCTION

DNB Livsforsikring AS (DNB Liv) does not present accounting information in English. This means that the company's Solvency and Financial Conditions Report (SFCR) for 2017 is only available in Norwegian.

Due to the interest shown by international investors and analysts, an extract from the SFCR has been translated into English. The extract primarily includes parts of the quantitative aspects described in the SFCR. The description of the system for risk management and internal control is omitted in its entirety.

The translated extract from the SFCR does not replace the Norwegian version and does not fulfil the requirements which must be met by the SFCR.

DNB LIV – OPERATIONS AND PRODUCTS

DNB Liv has a licence to engage in life insurance operations. DNB Liv achieved profits after tax of NOK 2.0 billion in 2017. The company had total assets of NOK 317 billion as at 31 December 2017, an increase of NOK 17 billion from 2016.

DNB Liv is organised in three product areas based on the categories of products offered by the company. Including corporate functions, DNB Liv is organised as follows:

Customer Service Personal Insurance and Guaranteed Pension is mainly responsible for the company's pension products that include guarantees in the form of agreed and defined benefits. This includes both guaranteed rates of return and life-long benefits. The three dominant products are defined-benefit pension in the private sector, paid-up policies and individual products with guaranteed rates of return. Further sales of these products have been stopped, primarily as a result of the risk and capital requirements related to the guaranteed rates of return. With respect to defined-benefit pensions, the annual premium thus refers to existing customers. New pension customers cannot transfer their defined-benefit pension scheme to DNB Liv. Paid-up policies are completely paid-up contracts which are issued when members are disenrolled from a defined-benefit pension scheme, either through a job change or if the employer partially or completely winds up a defined-benefit scheme. A number of employers have recently wound up their defined-benefit schemes, which has resulted in strong growth in the company's paid-up policy portfolio. DNB Liv no longer accepts paid-up policies from other life insurance companies and pension companies. Individual pension products are products established before 1 January 2008 which include a guaranteed rate of return and various guarantees regarding life expectancy. The authorities changed the product regulations for this type of products in 2008, though premiums are still paid on some contracts.

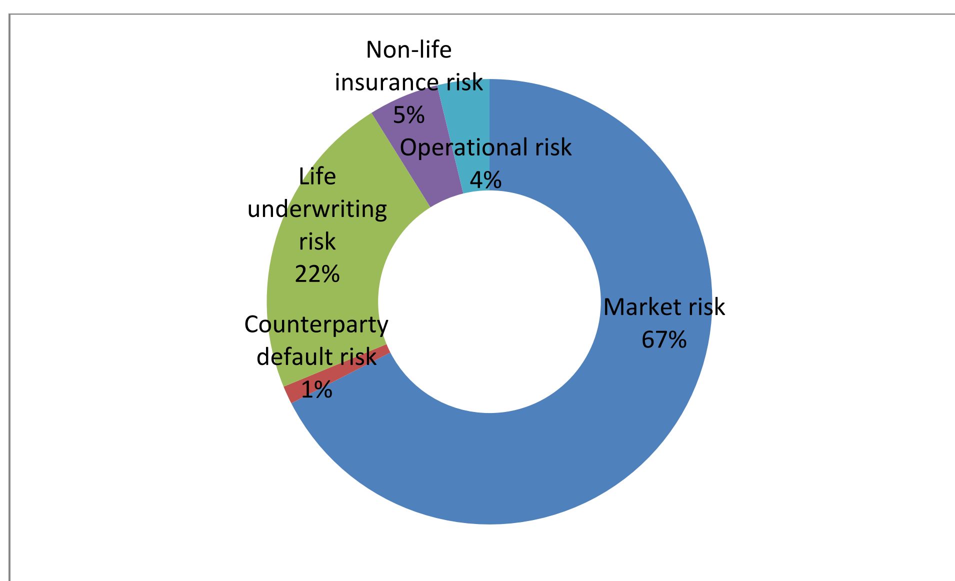
Future Pension Products

Future Pension Products is responsible for defined-contribution pensions, employer's liability insurance and individual pension products both with and without guaranteed rates of return. The company's new sales primarily encompass these products. The products are distributed mainly through the DNB Group's sales channels. The sales channels are organised as part of DNB Bank ASA. This includes physical service concepts and online sales solutions.

Personal Risk Products
Personal Risk Products are one-year risk products where insurance coverage is linked to health-related issues such as accidents, sickness and death. These products are also distributed through DNB Bank ASA through both physical distribution and online sales.

RISK PROFILE

The company's greatest risks are insurance risk, market risk and operational risk. The chart below shows the various risk factors' share of the gross capital requirement at year-end 2017:



The total gross capital requirement increased by NOK 2 billion compared with 31 December 2016. The increase was due to higher market risk and life insurance risk, while non-life insurance risk was reduced. Operational risk was on the same level as at the beginning of the year. There were no significant changes in the various risk categories' relative shares.

Insurance risk

The insurance risk in DNB Liv is in varying degrees divided between policyholders and the company. The risk result reflects differences in the results related to mortality, disability and settlement payments and the assumptions in the company's basis of calculation for premiums and provisions. The company is exposed to insurance risk related tor non-life insurance products (employer's liability insurance), and for risk with a maximum one-year duration, disability pensions and dependant's pensions.

For group pension agreements and new individual pension and endowment insurance products, up to 50 per cent of a positive risk result can be transferred to the risk equalisation fund. This fund can be used during years with a negative risk result. The risk equalisation fund cannot exceed 150 per cent of the company's total risk premiums for the accounting year.

For existing contracts, the insurance risk is constantly monitored through analysis and follow-up of risk results within each industry. The company also uses reassurance as an instrument to reduce insurance risk. The company currently has reassurance agreements covering disasters and major individual risks within group and individual insurance. The reassurance agreements entail that DNB' Liv is responsible for risk up to an agreed level, while the reassurer covers the excess risk up to an upper defined limit.

To reduce the insurance risk when policyholders take out insurance, a health assessment of the insured is carried out in connection with the sale of individual risk products. An individual health assessment is also carried out also for small-scale group schemes. In connection with the sale of disability pensions, customers will be categorised according to risk based on a concrete assessment of the risk related to the individual customer.

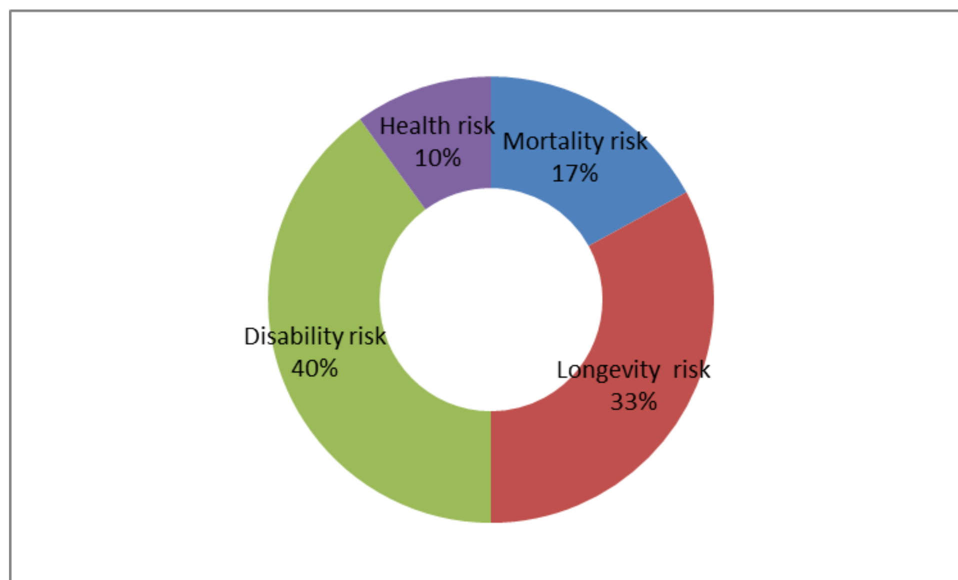
The tables below shows the risk result from last two years according to product:

2017	Risk Premium	Risk contribution	Risk result
NOK million			
Defines benefit pension	291	247	43
Paid-up policies	1 712	1 546	165
Defines contribution pension with disability coverage	788	800	(11)
Group association pension	64	59	6
Individual endowment insurance	261	131	131
Individual pension insurance	452	408	43
Group Life policies	387	335	51
Non-life insurance	358	295	63
Total	4 313	3 822	491

2016	Risk Premium	Risk contribution	Risk result
NOK million			
Defines benefit pension	447	341	106
Paid-up policies	1.592	1.433	159
Defines contribution pension with disability coverage	837	714	123
Group association pension	62	51	11
Individual endowment insurance	274	144	130
Individual pension insurance	453	364	89
Group Life policies	381	352	29
Non-life insurance	356	267	89
Total	4.402	3.666	736

In 2017, all product groups generated a positive risk result, apart from disability pension . The positive risk result for defined-benefit pension and paid-up policies is mainly due to good results related to disability pensions. The reduced risk premium for defined-benefit pension is mainly due to the fact that large customers wound up their defined-benefit pension schemes during 2017. This is also the reason for the increase in the risk premium for paid-up policies.

DNB Liv’s total insurance risk is mainly generated by longevity risk and disability risk for defined-benefit pensions and paid-up policies. The diagram below shows mortality exposure, longevity, disability and health risk in terms of risk premiums at year-end 2017.



Market and credit risk

Asset management in DNB Liv is divided between three main investment portfolios: the common portfolio, the investment choice portfolio and the corporate portfolio. Policyholders' funds are managed in the first two portfolios, while the company's assets are managed in the corporate portfolio.

The table below shows exposures and returns in the common and corporate portfolios.

	2017		2016	
NOK million	Exposure 31.12	Return in %	Exposure 31.dec	Return in %
Common portfolio				
Norwegian equities	2 197	15.7	1 228	15,2
International equities	15 855	18.6	13 463	8,6
Norwegian bonds	22 211	3.0	21 684	2,5
International bonds	6 983	4.1	7 131	5,7
Money market	29 688	1.6	28 802	1,8
Bonds and loans valued at amortised cost	110 651	4.4	114 960	4,4
Real estate	20 244	4.8	19 575	4,2
Other	1 171		1 438	
Total	208 998	4.8	208 282	4,2
Corporate portfolio				
Total	31 690	3.1	29 989	2,4

Net income from investments in the common portfolio and the corporate portfolio was NOK 10 billion and NOK 1 billion, respectively.

Asset management costs totalled NOK 210 million in 2017, corresponding to 0.1 percent of assets under management.

The table below shows the composition of the assets in sub-portfolios in the common and corporate portfolios.

NOK million	Norwegian equities	International equities	Norwegian bonds	International bonds	Money market	Held to maturity	Loans and receivables	Real estate	Other	Total
Common portfolio	423	2 262	2 613	730	3 401	6 556	6 796	2 214	215	25 210
individual savings with guarantee	320	1 813	2 001	778	1 067	4 218	2 710	1 646	25	14 578
paid-Up policies	627	5 829	9 206	2 570	14 819	34 170	15 652	5 181	759	88 813
paid-Up Policies (provisions for higher life expecancy)	289	2 451	3 625	995	6 982	16 004	6 712	6 010	92	43 160
disability coverage for defined contribution	24	168	240	123	701	600	367	160	2	2 385
helath insurance similar to non-life insurance				0	855	788	386	69	1	2 099
defined benefit pension with guarantees for private market.	515	3 332	4 526	1 787	1 862	11 584	4 107	4 964	76	32 753
total Common portfolio	2 197	15 855	22 211	6 983	29 688	73 921	36 730	20 244	1 171	209 000
corporate portfolio	1 243	3			25 886	1 839	1 843	7	869	31 690
Total portfolio	3 440	15 859	22 211	6 983	55 574	75 759	38 572	20 251	2 040	240 688

The investment choice portfolio includes all assets where customers themselves make investment decisions. The customer chooses investment profile among the options made available in DNB Liv's product solutions, and the customer him/herself is responsible for the market risk.

Customer portfolios at year-end 2017 are shown in the table below:

NOK billion	2017
Common portfolio	207
Corporate market	27
Defined benefit pension	25
Disability coverage for defined contribution pension	2
Private market	180
Defined benefit pensjon with guarantees for Private Market	33
Individual endowment insurance	15
Paid-up policies	131
Helath insurance similar to non-life insurance	1

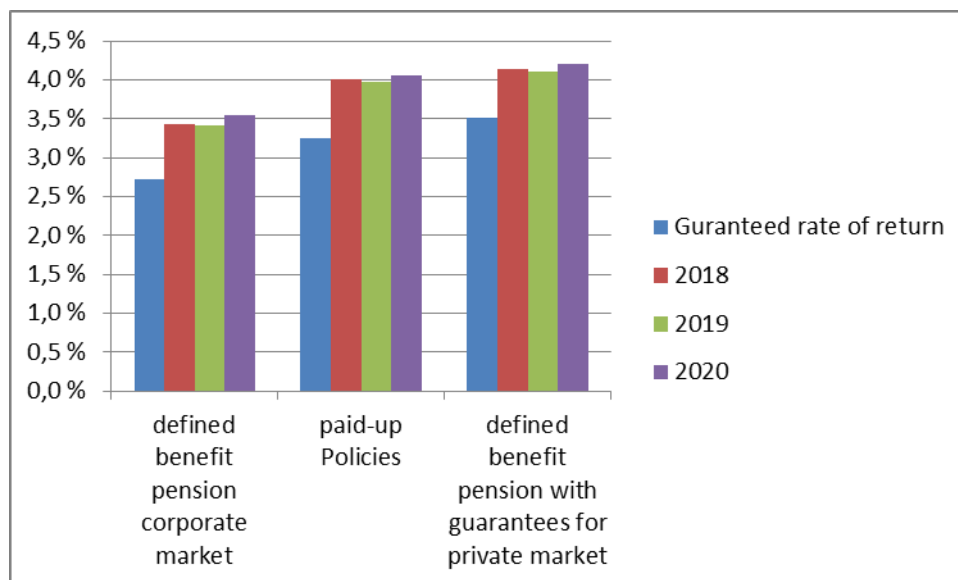
NOK billion	2017
Defined contribution with investment choice	76
Profile <=30	21
Profile 50	28
Profile >=80	14
Mutual fond menu	14

Expected return and guaranteed rate of return

DNB Liv carries the risk of fulfilling the company's commitments in contracts with policyholders. The return on financial assets must be sufficient to meet the guaranteed rate of return specified in insurance policies. Otherwise, inadequate returns will have to be covered by applying the market value adjustment reserve, additional statutory reserves, equity or subordinated loan capital. The guaranteed rate of return must be complied with on an annual basis. Measured in relation to policyholders' funds, the company's total guaranteed rate of return averages 3.1 per cent. The table below shows long-term developments in the guaranteed rate of return for individual industries. In step with the payment of pensions, the guaranteed rate of return as a percentage of pension commitments will be somewhat reduced each year.

Per cent	2017	2016	2015	2014	2013
Group pension	3.1%	3.1%	3.1%	3.2%	3.3%
Individual endowment insurance	2.2%	2.3%	2.3%	2.3%	2.6%
Individual pension insurance	3.4%	3.4%	3.4%	3.4%	3.4%
Group association pension	4.0%	4.0%	4.0%	4.0%	4.1%
Average	3.1%	3.1%	3.1%	3.2%	3.2%

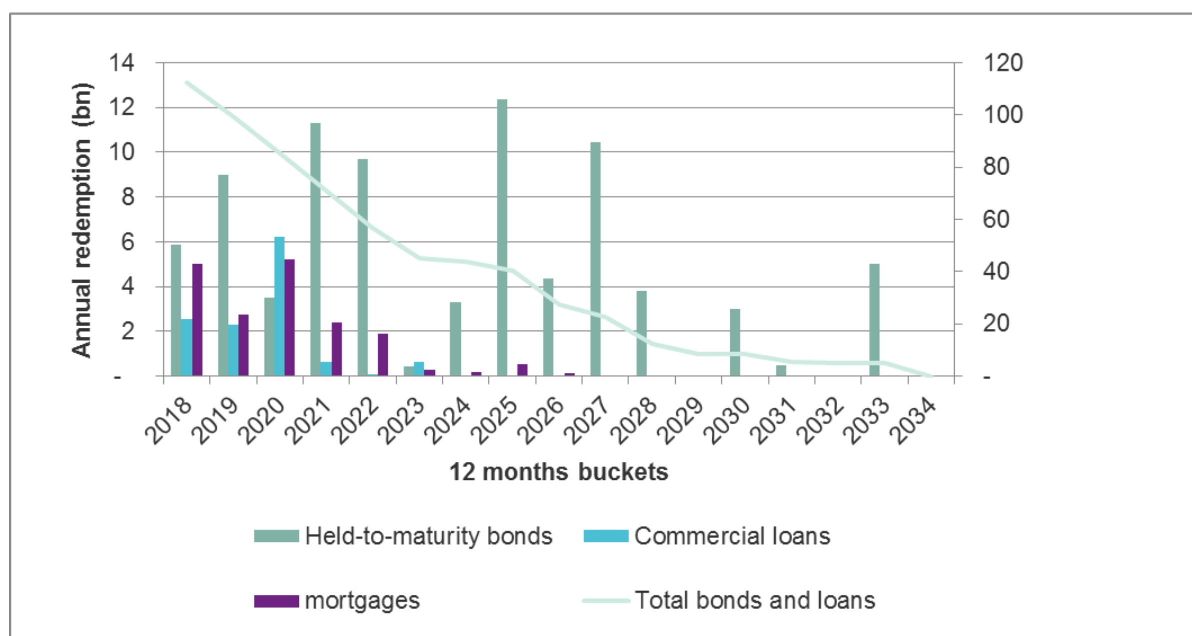
Meeting the guaranteed rate of return is important for the company's value creation and developments in its in solvency position. Based on normalised expected returns for the company's largest portfolios for the period 2018-2020, the chart below shows the guaranteed rate of return relative to the expected return.



As shown in the chart, the expected return is well above the guaranteed rate of return. The smallest margin refers to old individual contracts with the highest guaranteed rate of return.

Development in fixed-income instruments

DNB Liv aims to be an active and responsible asset manager which ensures an adequate return on policyholders' funds and an acceptable return on the company's invested capital through good diversification and consistent management of market risk. The current low interest rate level makes it demanding to achieve a high return for policyholders. The existing held-to-maturity portfolio, which generates a return of approximately 4.4 per cent, makes it possible to achieve a return that is higher than the guaranteed rate of return. In 2017, DNB Liv purchased commercial mortgages from DNB Bank/DNB Næringskreditt for a total value of NOK 4.9 billion. The table below shows the annual redemption of held-to-maturity bonds and commercial mortgages.



Fixed-income instruments are essential in making the company meet the guaranteed rate of return over the coming years.

TECHNICAL INSURANCE PROVISIONS, SOLVENCY II

Technical insurance provisions (TIP) affect the company's solvency capital and solvency capital requirements. The difference between the company's assets and TIP represents the company's solvency capital. TIP equals the sum of the best estimate (BE) and the risk margin (RM). The next table shows the provisions at year-end 2016 and at year-end 2017 according to the accounts (Solvency 1) and Solvency II:

	Insurance with guarantee		Insurance without guarantee	Non -life insurance	Total
NOK mill	With profit sharing	Without proft sharing			
31 Dec. 2017					
Solvency I	164 252	39 696	75 206	4 552	**283 706**
Solvency II	180 919	37 823	70 502	4 517	**293 762**
Effect of transitional rules	15 625	(1 756)	(4 410)	91	**9 550**
31 Dec. 2017					
Solvency I	152 428	49 257	60 220	6 187	**268 092**
Solvency II	169 324	46 606	57 706	6 411	**280 048**
Effect of transitional rules	16 896	(2 651)	(2 514)	(0,0)	**11 731**

The difference between Solvency I and Solvency II reflects the transitional rules for calculating the insurance obligations.

Life insurance products with profit sharing include paid-up policies and individual products with guaranteed rates of return sold prior to 1 January 2008. Life insurance products without profit sharing include defined-benefit pensions and individual products sold after 1 January 2008. Unit

linked insurance policies with no guarantee are defined-contribution pensions and unit linked products in the personal market segment.

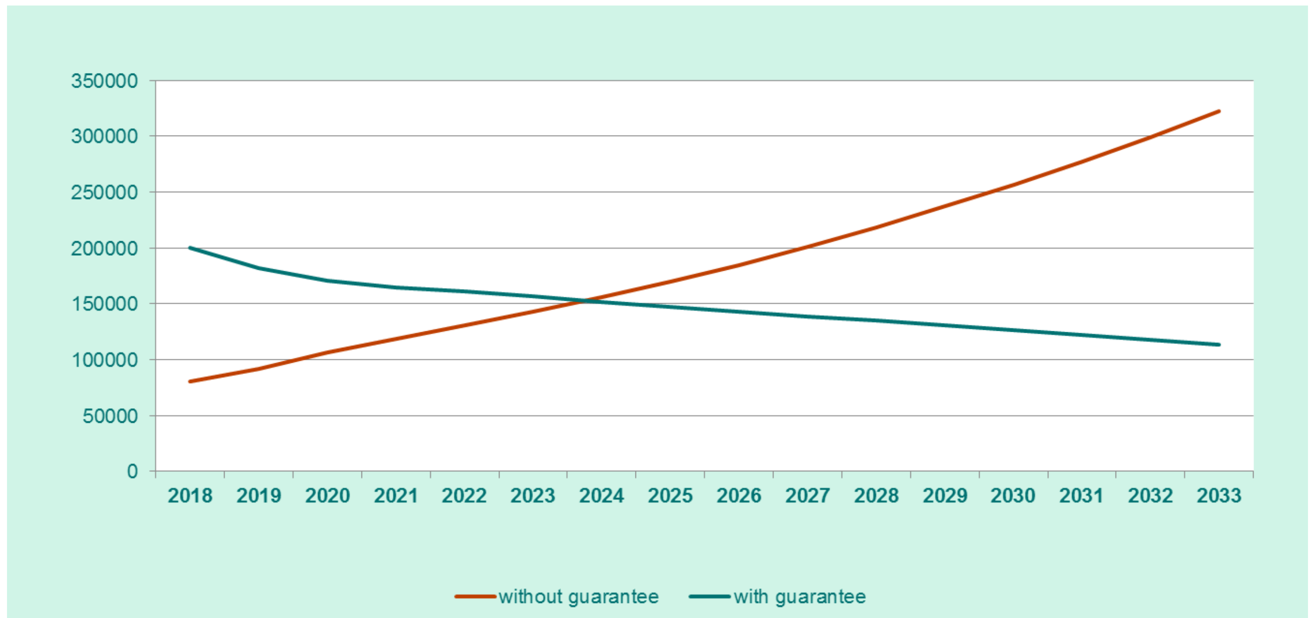
Technical insurance provisions increased by approximately NOK 14 billion during the year. The increase refers to unit linked insurance policies with no guaranteed rate of return, where the entire increase stems from defined-contribution pensions. The increase in defined-contribution pensions related to both new premiums and returns on policyholders' funds.

The risk margin is quantified through a separate model for this purpose. In the models, developments in the capital requirement for insurance risk (SCR for life and health insurance) are projected. The risk margin is 6 per cent multiplied by the present value of all future capital requirements for insurance risk. The discount rate applied is based on the supervisory authorities' market rate curve on the calculation date. In the projection, it is assumed that for most products, the insurance risk is proportionate to the development in the best estimate (BE) for the cash flow.

DNB Liv has applied to Finanstilsynet (the Financial Supervisory Authority of Norway) and been given permission to use the transitional rules for technical insurance provisions. At year-end 2017, this had a positive effect on solvency capital of NOK 9.5 billion before tax.

When calculating technical insurance provisions, a volatility adjustment (VA) of the interest rate curve is applied. The adjustment is intended to prevent artificial volatility in the company's solvency position as a result of changes in the market spread on the company's bond portfolio, among other things to reduce pro-cyclical behaviour. The VA is calculated using a reference portfolio based on assets in Norwegian life insurance companies, and represented a 15 basis point increase in the interest rate curve at year-end 2017. Without the VA, the provisions (TIP), without the transitional rules, would have been approximately NOK 2 billion higher and reduced the solvency margin by 13 percentage points.

Based on the expected termination of defined-benefit pension schemes and the issue of paid-up policies, a projection has been made of insurance liabilities (TIP) with guaranteed rates of return up to 2032, which is the end of the transitional period for the valuation of technical insurance provisions. Products with a guaranteed rate of return are expected to be reduced from NOK 200 million in 2017 to about NOK 114 billion in 2032.



A reduction in technical insurance provisions with a guaranteed rate of return and longevity risk combined with an increase in products without such guarantees will contribute to strengthening the company's solvency position in the coming years.

CAPITAL MANAGEMENT

DNB's long-term financial ambition towards 2020 is that the Group will achieve a return on equity above 12 per cent, a long-term common equity Tier 1 capital ratio of approximately 16 per cent and a dividend payout ratio of minimum 50 per cent of the Group's profit, provided that the capital adequacy ratio is satisfactory. For DNB Liv, the aim is to achieve a 6-8 per cent return on equity, a solvency margin above 140 per cent without transitional rules, and a dividend payout ratio of minimum 50 per cent. DNB Liv's self-assessment of risk and capital concludes that the company is sufficiently capitalised in the period up to 2020 and that there is a balance between risk and capital.

The solvency margin represents the degree to which the company's own funds meet the capital requirement stipulated in the solvency regulations. The solvency margin is calculated in two ways, with and without the transitional rules. When introducing Solvency II, the Norwegian authorities opened up for a gradual implementation of the regulations by allowing companies to value their insurance liabilities in accordance with the liabilities recorded in the accounts for a transitional period. This is expressed through the solvency margin with transitional rules. DNB Liv has been given permission to use the transitional rules, to be phased out gradually over a over a 16-year period. At year-end 2017, the solvency margin was 190 per cent. This means that the company's capital is almost twice as high as the required capital level. Without the transitional rules, DNB Liv had a solvency margin of 146 per cent. This solvency margin includes dividends for 2017 of NOK 1.5 billion. The company's solvency capital and solvency capital requirements are shown in the table below:

Solvency capital and solvency capital requirement		
NOK million	31 dec. 2017	31 dec. 2016
With transitional rules		
Solvency capital	34 307	34 779
Solvency capital requirement	18 079	16 518
Solvency margin	**190 %**	**211 %**
Without transitional rules		
Solvency capital	27 140	25 931
Solvency capital requirement	18 647	17 116
Solvency margin	**146 %**	**152 %**

The solvency capital requirement was increased by approximately NOK 1.5 billion through 2017. This is mainly due to an increased equity exposure and a slightly lower interest rate used to calculate the insurance liabilities. The improved solvency capital without transitional rules is mainly due to strengthened policyholders' funds and retained earnings.

When using the transitional rules, the company's solvency capital was higher than the solvency capital requirement throughout 2017. At year-end 2016, the company had good margins to the solvency capital requirements and was well capitalised. This also implies that the company will meet the solvency requirements if the interest rate level is lower than current market rates. Based on a normalised return over the coming two to three years, the solvency margin without transitional rules will stay at the same level, reflecting returns and profit generation.

DNB Liv's Own Risk and Solvency Assesment (ORSA) concludes that the company has a sound balance between risk and solvency. The company will be sufficently capitalised in the financial planning period up to 2020. A 100 per cent annual dividend is assumed.

Solvency capital

At year-end 2017, the company's own funds were composed as shown in the table below:

Own funds		
NOK mill	**31 Dec. 17**	**31 Dec.16**
Own funds group 1		
Ordinary share capital	1 750	1 750
Share premium reserve	6 016	6 016
Reconciliation reserve	20 520	21 106
Impact of transitional rules	*7 162*	*8 798*
Total basic own funds group 1	**28 286**	**28 872**
Own funds group 2		
Subordinated liabilities	5 500	5 500
Risk equalisation fund	516	407
Total basic own funds group 2	**6 016**	**5 907**
Own funds group 3		
Deferred tax	0	0
Total basic own funds group 3	**0**	**0**
Total available own funds to meet the SCR	**34 302**	**34 779**
Total available own funds to meet the SCR without transitional rules	**27 140**	**25 981**

The reconciliation reserve in the above table includes other equity of NOK 13.5 billion and NOK 14.1 billion, respectively, for 2016 and 2017. This corresponds to the figures in the accounts. Recorded equity and subordinated loans plus the reconciliation reserve thus sum up to total own funds in solvency margin calculations.

Subordinated loans under own funds group 2 consist of a perpetual subordinated loan of NOK 3 billion and a dated loan of NOK 2.5 billion falling due in 2025 with possible accelerated prepayment in 2020. The perpetual loan can be repaid in 2025. Both loans are internal loans in the DNB Group. There is a limitation on how much of the own funds group 2 can be used to meet the MCR requirement, and funds in this category are reduced. Funds included in group 3 cannot be used to meet the MCR requirement.

Based on the transitional rules, total own funds were reduced by NOK 0.5 billion. In the course of 2017, the reconciliation reserve was reduced by NOK 0.6 billion. This is due to a combination of retained earnings and the fact that use of the transitional rules reduces the reconciliation reserve. In addition, the risk equalisation fund increased by just over NOK 100 million.

Sensitivities

The company's solvency position is vulnerable to changes in assumptions and the interest rate level. Sensitivities have been prepared in connection with the calculation of the solvency margin at year-end 2017. These are shown in the table below:

Per cent	Solvency margin
Solvency margin per 31 Dec. 2017	146 %
Interest rate up 50 bp.	171 %
Interest rate down 50 bp.	120 %
Increase in mortality of 10%	153 %
Decrease in mortality of 10%	133 %
Increase in disability of 10%	144 %
Decrease in disality of 10%	147 %
Decrease value in equities of 25%	142 %
Increase in spread of 50 bp. combined by increase in VA +15 b	147 %
Decrease of ultimate forward rate(UFR) to 3.7 per cent	135 %

The sensitivity analysis shows that the company's biggest risk relates to falling interest rates. If interest rates decline by 50 basis points, the solvency margin will be reduced from 146 per cent to 120 per cent. Changes in the mortality rate will also have a material effect on the company's solvency position. In the analysis, mortality is assumed to decline by 10 per cent, which corresponds to a 1-2 year increase in life expectancy. This reduces the solvency margin to 133 per cent. In April 2017, EIOPA adopted new rules for the calculation of the UFR (Ultimate Forward Rate). It has been decided that the UFR can be reduced by up to 15 basis points per year, for the first time on 1 January 2018. As of 1 January 2018, the UFR will thus be reduced from 4.20 per cent to 4.05 per cent. The sensitivity analysis shows that if the future interest rate level measured through the UFR is reduced from 4.2 per cent to 3.65 per cent, the solvency margin will be reduced to 135 per cent. The 15 basis point reduction in the UFR as of 1 January 2018 will thus have little effect on the solvency margin. The remaining sensitivities will have a limited effect on the solvency margin. The effect including the transitional rules is at the same level as shown above with one exception. Changes in interest rates are compensated for through the transitional rules, and interest rate changes have little effect on the company's solvency position when the transitional rules are applied. Based on calculations made as at 31 December 2017, the company will have a solvency margin of more than 170 per cent for all sensitivities when using the transition rules.

Solvency capital requirement and minimum capital requirement

The table below provides an overview of developments in the solvency capital requirement without the transitional rules and the minimum capital requirement in 2017 in total and distributed over the main modules in the standard model.

NOK mill	**31 Dec. 2017**	**31 Dec. 2016**
Market and counterparty default risk	29 554	27 639
Insurance risk	11 328	11 220
Operational risk	1 123	1 095
Diversification	(7 423)	(7 174)
Loss-absorbing tax	(5 126)	(4 637)
Loss-absorbing technical provisions	(11 376)	(11 625)
Sovency capital requirement	**18 079**	**16 518**
Minimum capital requirement	7 908	7 356
Solvency margin including transitonal rules	190 %	211 %
Solvency margin without transitonal rules	146 %	152 %

Market risk increased during 2017 due to higher equity risk. This is in accordance with DNB Liv's financial strategy. Interest rates are generally at the same level as at year-end 2016. Insurance risk includes the risk that customers will transfer their contracts to other companies. This risk is among other things dependent on future benefits for the company. Due to an increase in the defined contribution portfolio, this risk is higher.

The composition of sub-modules for market risk in the standard method is shown in the official report, section C.2.

The calculation of the minimum capital requirement is based on the rates for best estimate provisions under Solvency II for life insurance products and non-life insurance products. In the calculation, there is a lower and an upper limit for the requirement of minimum 25 per cent and maximum 45 per cent of the estimated solvency capital requirement. The minimum requirement as at 31 December 2017 is dominated by the requirement for the company's life insurance operations (95 per cent). The remaining 5 per cent represents non-life insurance products. As at 31 December 2017, the minimum requirement was within the limitations of minimum 25 per cent and maximum 45 per cent.

During 2017, the minimum requirement was increased by NOK 0.5 billion. The main reason for this is higher equity risk and insurance risk.

Violations of the minimum capital requirement and the solvency capital requirement

DNB Liv has reported its capital requirement to Finanstilsynet. The company fulfilled the capital solvency requirements throughout 2017.

Attachments:

List of reported templates

S.02.01.02 - Balance sheet

S.05.01.02 - Premiums, claims and expenses by line of business

S.12.01.02 - Life and health SLT technical provisions

S.17.01.02 - Non-life technical provisions

S.19.01.21 - Non-life insurance claims

S.22.01.21 - Impact of long- term guarantees measures and transitionals

S.23.01.01 - Own funds

S.25.01.21 - Solvency capital requirement - for undertakings on standard formula

S.28.02.01 - Minimum capital requirement - both life and non-life insurance activity

Source:

Implementing regulation EU 2015 – 2452 ITS SFCR.pdf

EIOPA delegated regulation 202015 - supplementing directive 202009-138 EC. Articles 307, 308, 309, 310, 311.