39 Risk management disclosures

Sampo Group's Risks and Core Risk Management Activities

Sampo Group companies operate in business areas where specific features of value creation are the pricing of risks and the active management of risk portfolios in addition to sound client services. Hence common risk definitions are needed as a basis for business activities.

Group's Risks

In Sampo Group the risks associated with business activities fall into three main categories as shown in the picture Classification of Risks in Sampo Group: strategic risks, reputational risk and risks inherent in the business operations. The first two risk classes are only briefly described in this Risk Management Disclosure as the focus is on the third risk class.

External Drivers and Strategic Risks

Strategic risk is the risk of losses due to changes in the competitive environment or lack of internal operational flexibility. Unexpected changes in the general business environment can cause larger than expected fluctuations in the financial results and in the long run these can endanger the existence of Sampo Group's business models.

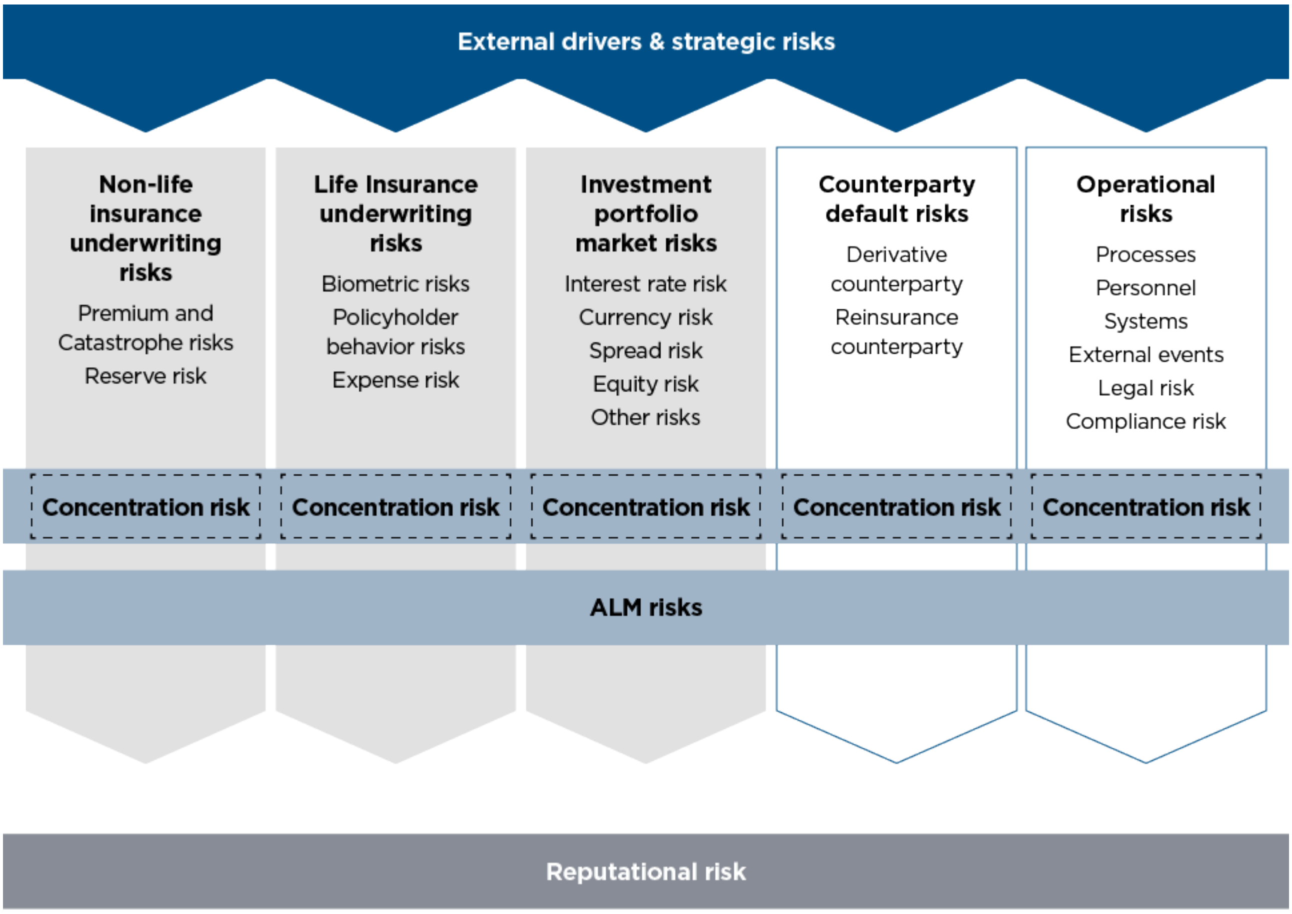
External drivers behind such changes are varied, and include for instance general economic development, changes in values, development of the institutional and physical environment and technological innovations. External drivers are often connected to each other in many ways and because of them customer demand and behaviour can change, new competitors may appear and as a result business models of the industry can change. Currently the themes of sustainable business practices in general and especially the issues related to environment, society and governance are changing the preferences and values of different stakeholders and hence as a result business environment is also changing in many different ways.

Due to the predominantly external nature of the drivers and development in the competitive environment, managing strategic risks is the responsibility of the executive level senior management. Proactive strategic decision-making is the central tool in managing strategic risks relating to business practices and competitive advantage. The maintenance of internal operational flexibility, in order to be able to adjust the business model and cost structure when needed is also an efficient tool in managing strategic risks. Although strategic risks are not covered by the capitalization process in Sampo Group they may have an effect on the amount and structure of the actual capital base, if this is deemed to be prudent in the existing business environment.

Reputational Risk

Reputational risk refers to the risk that adverse publicity regarding the company's business practices or associations, whether accurate or not, causes a loss of confidence in the integrity of the institution. Reputational risk is often a consequence of a materialized operational or compliance risk and often manifests as a deterioration of reputation amongst customers and other stakeholders. Reputational risk is related to all activities shown in the figure Classification of Risks in Sampo Group. As the roots of reputational risk are varied, the tools to prevent it must be diverse and embedded within the corporate culture. The corporate culture, which is based on the core values of ethicality, loyalty, openness and entrepreneurship, is thus seen as an essential tool in preventing reputational risk in Sampo Group. These core values are reflected in how Sampo deals with environmental issues and its core stakeholders (i.e. customers, personnel, investors, other co-operation partners, tax authorities and supervisory authorities) and how Sampo Group has organized its Corporate Governance system.

Classification of Risks in Sampo Group



Risks Inherent in Business Operations

In its underwriting and investment operations, Sampo Group is consciously taking certain risks in order to generate earnings. These **earnings risks** are carefully selected and actively managed. Underwriting risks are priced to reflect their inherent risk levels and the expected return of investments is compared to the related risks. Furthermore, earnings related risk exposures are adjusted continuously and their impact on the capital need is assessed regularly.

Successful management of underwriting risks and investment portfolio market risks is the main source of earnings for Sampo Group companies. Day-to-day management of these risks, i.e. maintaining them within given limits and authorisations is the responsibility of the business areas and the investment unit.

Some risks, such as counterparty default risks and operational risks presented in the figure Classification of Risks in Sampo Group are indirect repercussions of Sampo's normal business activities. They are one-sided risks, which in principle have no related earnings potential. Accordingly, the risk management objective is to mitigate these risks efficiently rather than actively manage them. Mitigation of **consequential risks** is the responsibility of the business areas and the investment unit. The capital need for these risks is measured by independent risk management functions. It has to be noted that the categorization of risks between earnings and consequential risks varies depending on the industry. For Sampo Group's clients, for instance, the events that are subject to insurance policies are consequential risks and for Sampo Group these same risks are earnings risks.

Some risks such as interest rate, currency and liquidity risks are by their nature simultaneously linked to various activities. In order to manage these risks efficiently, Sampo Group companies have to have a detailed understanding of expected cash flows and their variance within each of the company's activities. In addition, a thorough understanding is needed of how the market values of assets and liabilities may fluctuate at the total balance sheet level under different scenarios. These balance sheet level risks are commonly defined as Asset and Liability Management ("ALM") risks. In addition to interest rate, currency and liquidity risk, inflation risk and risks relating to GDP growth rates are central ALM risks in Sampo Group. The ALM risks are one of the focus areas of senior management because of their relevance to risks and earnings in the long run.

In general, **concentration risk** arises when the company's risk exposures are not diversified enough. When this is the case, an individual extremely unfavourable claim or financial market event, for instance, could threaten the solvency of the company.

Concentrations can evolve within separate activities – large single name or industry specific insurance or investment exposures – or across activities when a single name or an industry is contributing widely to the profitability and risks of the company through both insurance and investment activities.

Concentration risk may also materialize indirectly when profitability and capital position react similarly to general economic developments or to structural changes in the institutional environment in different areas of business. This kind of indirect concentration risk can be seen as part of strategic risk.

More detailed risk definitions can be found in Appendix 2 (Risk Definitions).

Core Risk Management Activities

To create value for all stakeholders in the long run, Sampo Group companies must have the following forms of capital in place:

- Financial flexibility in the form of adequate capital and liquidity.
- Good technological infrastructure.
- Intellectual capital in the form of comprehensive proprietary actuarial data and analytical tools to convert this data to information.
- Human capital in the form of skillful and motivated employees.
- Social and relationship capital in the form of good relationships with society and clients to understand the changing needs of different stakeholders.

At the company level, these resources are continuously developed. They are in use when the following core activities related to risk pricing, risk taking and active management of risk portfolios are conducted.

Appropriate selection and pricing of underwriting risks

- Underwriting risks are carefully selected and are priced to reflect their inherent risk levels.
- Insurance products are developed proactively to meet clients' changing needs and preferences.

Effective management of underwriting exposures

- Diversification is actively sought.
- Reinsurance is used effectively to reduce largest exposures.

Careful selection and execution of investment transactions

- Risk return ratios and sustainability issues of separate investments opportunities are carefully analysed.
- Transactions are executed effectively.

Effective mitigation of consequential risks

- Counterparty default risks are mitigated by carefully selecting counterparties, applying collateral agreements and assuring adequate diversification.
- High quality and cost efficient business processes are maintained.
- Continuity and recovery plans are continuously developed to secure business continuity.

Effective management of investment portfolios and the balance sheet

- Balance between expected returns and risks in investment portfolios and the balance sheet is optimized, taking into account the features of insurance liabilities, internally assessed capital needs, regulatory solvency rules and rating requirements.
- Liquidity risks are managed by having an adequate portion of investments in liquid instruments. The portion is mainly dependent on the features of the liabilities.

At the group level, the risk management focus is on group-wide capitalization and liquidity. It is also essential to identify potential risk concentrations and to have a thorough understanding of how reported profits of companies would develop under different scenarios. These concentrations and correlations may have an effect on group level capitalization and liquidity buffers as well as on group level management actions.

When the above mentioned core activities are successfully implemented, a balance between profits, risks and capitalization can be achieved on both a company and group level and shareholder value can be created.

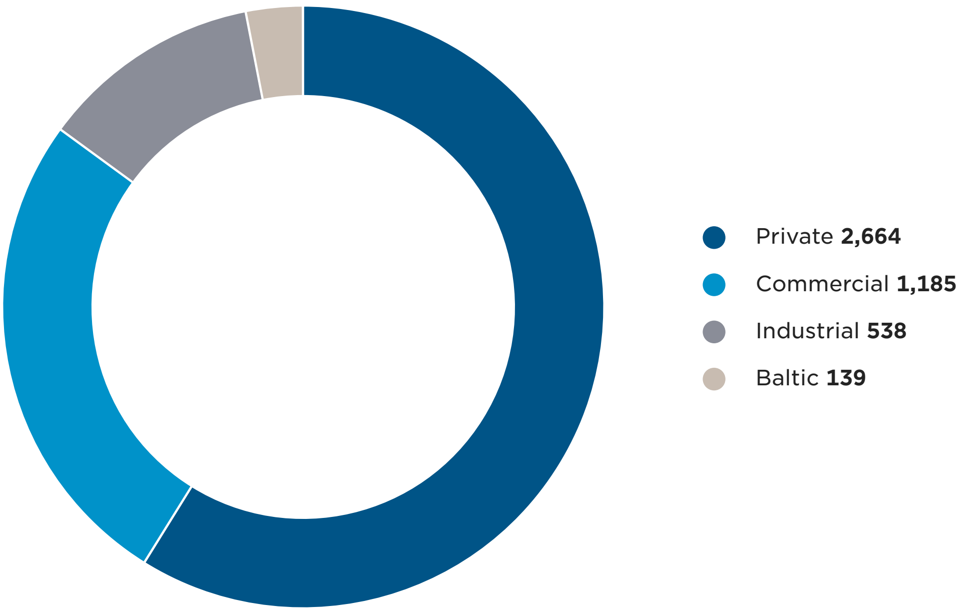
Further information on Sampo Group's steering framework and risk management process can be found in Sampo Group's Annual Report in Sampo Group's Risk Management Disclosure, in Appendix 1 (Sampo Group Steering Framework and Risk Management Process) and Appendix 3 (Selected Management Principles).

If P&C Group

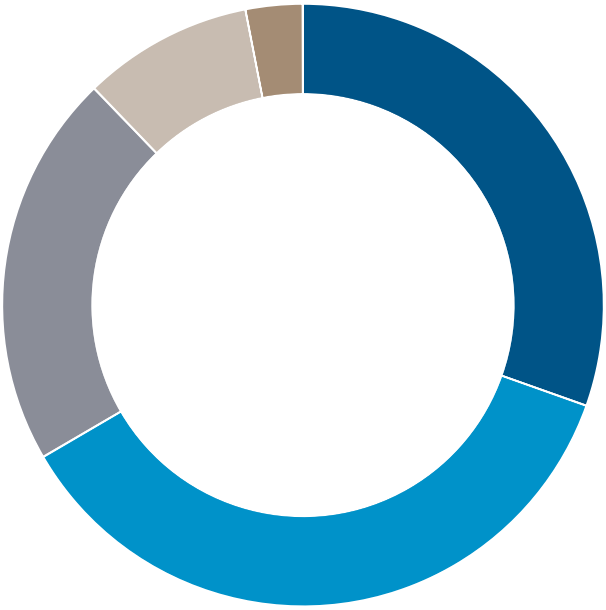
Underwriting Risks

As shown in the below figure Breakdown of Gross Written Premiums by Business Area, Country and Line of Business, If P&C, 2017, the If P&C insurance portfolio is well diversified across Business Areas, Countries and Lines of Business. The six Lines of Business are segmented in accordance with insurance class segmentation used in IFRS.

Breakdown of Gross Written Premiums by Business Area
If P&C, 2017, total EUR 4,526 million

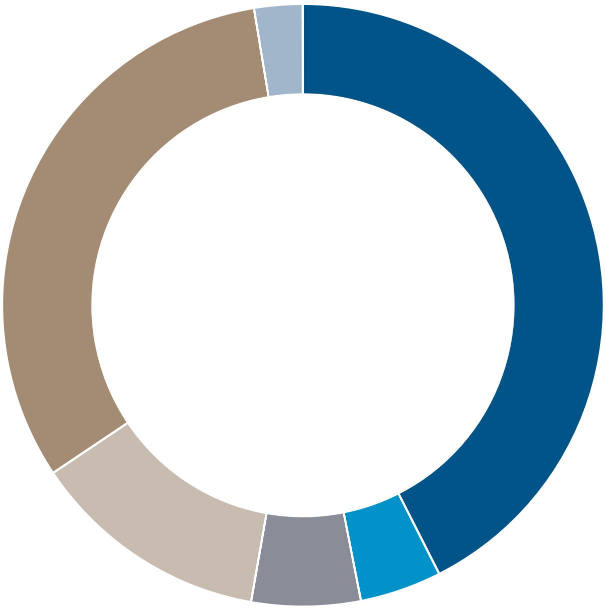


Breakdown of Gross Written Premiums by Country
If P&C, 2017, total EUR 4,526 million



- Norway **1,377**
- Sweden **1,637**
- Finland **959**
- Denmark **414**
- Baltic **139**

Breakdown of Gross Written Premiums by Line of Business
If P&C, 2017, total EUR 4,526 million



- Motor other and motor third party liability **1,924**
- Workers' compensation **199**
- Liability **265**
- Accident **581**
- Property **1,439**
- Marine, aviation, transport **118**

The following adjustments from IFRS LoB´s to Solvency II LoBs are made:

- IFRS Line of Business Motor other and Motor third party liability (1,924) include Solvency II Line of Business Motor vehicle liability insurance (590)

and Other motor insurance (1,334).
- IFRS Line of Business Accident (581) includes Solvency II Line of Businesses Income protection insurance (397), Other Life (38), Medical expense insurance (131) and Assistance (14).

The item Other (including group eliminations) is not shown in the breakdowns above but is included in total gross written premiums. There are minor differences between the figures reported by Sampo Group and If P&C due to differences in foreign exchange rates used in consolidation.

Premium and Catastrophe Risk and Their Management and Control

Despite the diversified portfolio, risk concentrations and consequently severe claims may arise through, for example, exposures to natural catastrophes such as storms and floods. The geographical areas most exposed to such events are Denmark, Norway and Sweden. In addition to natural catastrophes, single large claims could have an impact on the insurance operations' result. The negative economic impact of natural catastrophes and single large claims is effectively mitigated by having a well-diversified portfolio and a group wide reinsurance program in place.

The sensitivity of the underwriting result and hence underwriting risk is presented by changes in certain key figures in the table Sensitivity Test of Underwriting Result, If P&C, 31 December 2017 and 31 December 2016.

Sensitivity Test of Underwriting Result

If P&C, 31 December 2017 and 31 December 2016 (unaudited)

Key figure	Current level (2017)	Change in current level	Effect on pretax profit, EURm 2017	2016
Combined ratio, business area Private	84.0%	+/- 1 percentage point	+/- 26	+/- 26
Combined ratio, business area Commercial	88.0%	+/- 1 percentage point	+/- 12	+/- 12
Combined ratio, business area Industrial	88.7%	+/- 1 percentage point	+/- 4	+/- 4
Combined ratio, business area Baltics	88.9%	+/- 1 percentage point	+/- 1	+/- 1
Net premiums earned (EURm)	4,294	+/- 1 per cent	+/- 43	+/- 43
Net claims incurred (EURm)	2,959	+/- 1 per cent	+/- 30	+/- 29
Ceded written premiums (EURm)	168	+/- 10 per cent	+/- 17	+/- 17

The Underwriting Committee ("UWC") shall give its opinion on and propose actions in respect of various issues related to underwriting risk. The committee also considers and proposes changes to the Underwriting Policy ("UW Policy"), which is the principal document for underwriting, and sets general principles, restrictions and directions for the underwriting activities. This document shall be reviewed and decided at least yearly by the Boards of Directors.

The Chairman of the UWC is responsible for the reporting of policy deviations and other issues dealt with by the committee.

The UW Policy is supplemented with guidelines outlining in greater detail how to conduct underwriting within each Business Area. These guidelines cover areas such as tariff and rating models for pricing, guidelines in respect of standard conditions and manuscript wordings, as well as authorities and limits. In accordance with the Instructions for the Underwriting Committee, the Committee monitors compliance with the established underwriting principles.

The Business Areas manage the underwriting risk on a day-to-day basis. A crucial factor affecting the profitability and risk of non-life insurance operations is the ability to accurately estimate future claims and expenses and thereby correctly price insurance contracts. The premiums within the Private Business Area and the premiums for smaller risks within the Commercial Business Area are set through tariffs. The underwriting of risks in the Industrial Business Area and of more complex risks within the Commercial Business Area is based to a greater extent on principles and individual underwriting than on strict tariffs. In general, pricing is based on statistical analyses of historical claims data and assessments of the future development of claims frequency and claims inflation.

If P&C's Reinsurance Policy stipulates guidelines for the purchase of reinsurance. The need and optimal choice of reinsurance is evaluated by looking at the expected cost versus the benefit of the reinsurance, the impact on result volatility and impact on capital requirements. The main tool for this evaluation is If P&C's internal model in which frequency of claims, large claims and natural catastrophes are modelled.

A group-wide reinsurance program has been in place in If P&C since 2003. In 2017, retention levels were between SEK 100 million (approximately EUR 10.2 million) and SEK 250 million (approximately EUR 25.4 million) per risk and SEK 250 million (approximately EUR 25.4 million) per event.

Reserve Risk and Its Management and Control

The main reserve risks for If P&C are stemming from uncertainty in the claim amounts caused by higher claim inflation and increases in life expectancy than expected, with the consequences that both annuities and lump sum payments would increase.

In the table Technical Provisions by Line of Business and Major Geographical Area, If P&C, 31 December 2017 below, If P&C's technical provisions and durations are presented by Line of Business and Major Geographical Area. When the breakdown of technical provisions is compared to the breakdown of gross written premiums it can be seen that Finland's and Sweden's share of technical provisions is larger than the share of gross written premiums. This is mainly due to Sweden and Finland having a long duration of Motor other and Motor third party liability and Finland also having a long duration of Workers compensation. The long duration is mainly due to annuities in these lines of business, which increases the amount of technical provisions. The duration of the provisions, and thus the sensitivity to changes in interest rates, varies with each product portfolio. The weighted average duration for 2017 across the product portfolios was 6.5 years.

Technical Provisions by Line of Business and Major Geographical Area
If P&C, 31 December 2017

	Sweden		Norway		Finland		Denmark		Total	
	EURm	Duration	EURm	Duration	EURm	Duration	EURm	Duration	EURm	Duration
Motor other and MTPL	2,516	7.5	536	1.4	1,033	12.7	160	1.8	4,245	7.8
Workers' compensation	0	0.0	218	5.0	1,199	12.1	252	6.7	1,669	10.4
Liability	268	2.7	127	1.4	122	3.0	74	1.9	591	2.4
Accident	327	4.9	372	5.7	156	4.3	94	1.7	948	4.8
Property	407	1.2	475	0.9	226	1.1	99	1.0	1,207	1.0
Marine, aviation, transport	21	1.9	48	0.6	10	0.9	23	1.2	101	1.0
Total	**3,537**	**6.1**	**1,775**	**2.5**	**2,746**	**10.5**	**701**	**3.1**	**8,760**	**6.5**

As on Sampo's annual report 2017 figures are excluding Baltic, total EUR 140 million.

Reserves are exposed mainly to inflation and discount rates and to some extent to life expectancy. The sensitivity of If P&C's technical provisions to an increase in inflation, an increase in life expectancy and a decrease in the discount rate is presented in the table Sensitivities of Technical Provisions, If P&C, 2017.

Sensitivities of Technical Provisions
If P&C, 2017

Technical provision item	Risk factor	Change in risk parameter	Country	Effect EURm 2017
Nominal provisions	Inflation increase	Increase by 1%-point	Sweden Denmark Norway Finland	183.8 11.7 53.3 37.4
Annuities and estimated share of claims provisions to future annuities	Decrease in mortality	Life expectancy increase by 1 year	Sweden Denmark Finland	24.6 1.6 66.2
Discounted provisions (annuities and part of Finnish IBNR)	Decrease in discount rate	Decrease by 1%-point	Sweden Denmark Finland	66.2 13.3 299.3

From 2014 onwards the estimated share of claims provision to future annuities are included in the life expectancy increase sensitivity.

If P&C's technical provisions are further analyzed by claims years. The output from this analysis is illustrated both before and after reinsurance in the claims cost trend tables. These are disclosed in the Note 25 to the Financial Statements.

The anticipated inflation trend is taken into account when calculating all provisions and is of the utmost importance for claims settled over a long period of time, such as Motor other and Motor third party liability and Workers' compensation. The anticipated inflation is based on external assessments of the inflation trend in various areas, such as the consumer price index and payroll index, combined with If P&C's own estimation of costs for various types of claims. For lines of business such as Motor other and Motor third party liability and Workers' compensation, legislation differs significantly between countries. Some of the Finnish, Swedish and Danish technical provisions for these lines include annuities which are sensitive to changes in mortality assumptions and discount rates. The proportion of technical provisions related to Motor other and Motor third party liability and Workers' compensation was 68 per cent.

The Board of Directors of If P&C decides on the guidelines governing the calculation of technical provisions. If P&C's Chief Actuary is responsible for developing and presenting guidelines on how the technical provisions are to be calculated and for assessing whether the level of total provisions is sufficient. On If P&C Group level the Chief Actuary issues a quarterly report on the adequacy of technical provisions.

The Actuarial Committee is a preparatory and advisory board for If P&C's Chief Actuary. The committee secures a comprehensive view over reserve risk, discusses and gives recommendations on policies and guidelines for calculating technical provisions.

The actuaries continuously monitor the level of provisions to ensure that they comply with the established guidelines. The actuaries also develop methods and systems to support these processes.

The actuarial estimates are based on historical claims and existing exposures that are available at the balance sheet date. Factors that are monitored include loss development trends, the level of unpaid claims, changes in legislation, case law and economic conditions. When setting property and casualty provisions, the Chain Ladder and Bornhuetter-Fergusson methods are generally used, combined with projections of the number of claims and average claims costs. For life provisions, the IBNR calculations are based on the estimated claims cost (risk premium) over the average time from claim occurrence to reporting.

Market Risks

Fixed income investments and listed equity instruments form a major part of investment portfolio of EUR 11,685 million (EUR 12,192 million in 2016). A large part of the fixed income investments was at 31 December 2017 concentrated to financial institutions. The role of real estate, private equity, biometric and other alternative investments is immaterial.

The composition of the investment portfolios by asset classes in If P&C at year end 2017 and at year end 2016 and average maturities of fixed income investments are shown in the table Investment Allocation, If P&C, 31 December 2017.

Investment Allocation
If P&C, 31 December 2017 and 31 December 2016

	If P&C 31 Dec 2017			If P&C 31 Dec 2016		
Asset class	Market value, EURm	Weight	Average maturity, years	Market value, EURm	Weight	Average maturity, years
Fixed income total	**10,200**	**87%**	**2.7**	**10,624**	**87%**	**2.8**
Money market securities and cash	575	5%	0.1	992	8%	0.3
Government bonds	1,040	9%	2.5	1,231	10%	3.1
Credit bonds, funds and loans	8,584	73%	2.9	8,401	69%	3.1
Covered bonds	3,084	26%	2.6	2,967	24%	3.1
Investment grade bonds and loans	3,490	30%	2.9	3,404	28%	2.9
High-yield bonds and loans	1,344	12%	2.8	1,461	12%	3.0
Subordinated / Tier 2	343	3%	4.7	278	2%	4.5
Subordinated / Tier 1	323	3%	3.2	292	2%	3.9
Hedging swaps	0	0%	-	0	-0%	-
Policy loans	0	0%	0.0	0	0%	0.0
Listed equity total	**1,448**	**12%**	**-**	**1,527**	**13%**	**-**
Finland	0	0%	-	0	0%	-
Scandinavia	151	1%	-	1,147	9%	-
Global	1,298	11%	-	380	3%	-
Alternative investments total	**39**	**0%**	**-**	**44**	**0%**	**-**

Real estate	20	0%	-	22	0%	-
Private equity	19	0%	-	23	0%	-
Biometric	0	0%	-	0	0%	-
Commodities	0	0%	-	0	0%	-
Other alternative	0	0%	-	0	0%	-
Trading derivatives	**-3**	**0%**	**-**	**-3**	**0%**	**-**
Asset classes total	**11,685**	**100%**	**-**	**12,192**	**100%**	**-**
FX Exposure, gross position	**207**	**0%**	**-**	**99**	**-**	**-**

If P&C´s investment management strategy is conservative, with a low equity share and low fixed-income duration.

The performance and market risk is actively monitored and controlled by the Investment Control Committee on a monthly basis and reported to the ORSA Committee quarterly. In addition, the allocation limits, issuer and counterparty limits, the sensitivity limits for interest rates and credit spreads as well as regulatory capital requirements are regularly monitored.

Market Risks of Fixed Income and Equity Instruments

Spread Risk and Equity Risk

Spread risk and equity risk are derived only from the asset side of the balance sheet. Exposures in fixed income and equity instruments are presented by Sectors, Asset Classes and Rating in below table that also include counterparty risk exposures relating to reinsurance and derivative transactions. Counterparty default risks are described in more detail in section Counterparty Default Risks. Due to differences in the reporting treatment of derivatives, the figures in the table are not fully comparable with other tables in this annual report.

Exposures by Sector, Asset Class and Rating

If P&C, 31 December 2017

EURm	AAA	AA+ - AA-	A+ - A-	BBB+ - BBB-	BB+ - C	D	Non-rated	Fixed income total	Listed equities	Other	Counterparty risk	Total	Change 31 Dec 2016
Basic Industry	0	0	31	58	1	0	52	143	40	0	0	183	23
Capital Goods	0	0	89	53	0	0	30	173	521	0	0	694	-4
Consumer Products	0	106	222	301	0	0	76	706	311	0	0	1,017	49
Energy	0	41	30	0	53	0	154	278	6	0	0	284	-137
Financial Institutions	0	968	1,250	444	22	0	26	2,710	28	0	6	2,744	-370
Governments	92	0	0	0	0	0	0	92	0	0	0	92	-31
Government Guaranteed	43	77	0	0	0	0	0	120	0	0	0	120	-36
Health Care	7	10	32	42	0	0	8	99	66	0	0	166	23
Insurance	0	0	40	63	27	0	22	152	0	0	60	212	-5
Media	0	0	0	0	0	0	22	22	0	0	0	22	-13
Packaging	0	0	0	0	0	0	5	5	0	0	0	5	0
Public Sector, Other	674	155	0	0	0	0	0	829	0	0	0	829	-123
Real Estate	0	6	92	80	8	0	489	674	0	20	0	694	91
Services	0	0	0	65	23	0	89	177	0	0	0	177	-12
Technology and Electronics	8	0	36	0	0	0	34	78	5	0	0	83	-21
Telecommunications	0	0	0	120	0	0	49	169	60	0	0	229	18
Transportation	0	72	7	53	0	0	167	299	7	0	0	306	-73
Utilities	0	0	31	244	46	0	44	364	0	0	0	364	-77
Others	0	26	0	0	0	0	12	39	0	0	0	39	22
Asset-backed Securities	0	0	0	0	0	0	0	0	0	0	0	0	0
Covered Bonds	3,020	63	0	0	0	0	0	3,084	0	0	0	3,084	117
Funds	0	0	0	0	0	0	0	0	403	19	0	422	20
Clearing House	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**3,845**	**1,525**	**1,860**	**1,523**	**180**	**0**	**1,279**	**10,212**	**1,448**	**39**	**66**	**11,765**	**-538**
Change 31 Dec	**-17**	**-413**	**-162**	**274**	**-142**	**0**	**45**	**-413**	**-78**	**-5**	**-42**	**-538**	

2016

Most of the fixed income exposures are in investment grade issues and currently the role of Nordic covered bonds and Nordic banks as issuers is central. Within fixed income investments part of the money market securities, cash and investment grade government bonds form a liquidity buffer.

In regards to equities most of the equity investments are in Scandinavian markets that are selectively picked direct investments. When investing in non-Nordic equities, funds or other assets, third party managed investments are mainly used. The changes of Equity positions during the year can be seen from the table Breakdown of Listed Equity Investments by Geographical Regions, If P&C, 31 December 2017 and 31 December 2016.

Breakdown of Listed Equity Investments by Geographical Regions
If P&C, 31 December 2017 and 31 December 2016

	31 Dec 2017		31 Dec 2016	
If P&C	%	EURm	%	EURm
Denmark	0%	5	1%	9
Norway	10%	149	13%	195
Sweden	62%	891	62%	944
Finland	0%	0	0%	0
Western Europe	10%	151	11%	162
East Europe	0%	0	0%	0
North America	6%	87	6%	88
Latin America	2%	28	2%	25
Far East	9%	137	7%	105
Japan	0%	0	0%	0
Total		**1,448**		**1,527**

Market Risks of Balance Sheet

Asset and Liability Management (ALM) Risk

The ALM risk is taken into account through the risk appetite framework and its management and governance are based on If P&C's Investment Policies.

In general to maintain the ALM risk within the overall risk appetite, the cash flows of insurance liabilities are matched by investing in fixed income instruments denominated in same currencies as liabilities or in case assets with healthy risk return ratios are not available in liability's currency derivatives are used. During the current low interest rate environment the liquidity of assets has been special focus of investment strategy.

Interest Rate Risk

In general If P&C Group is negatively affected when interest rates are decreasing or staying at low levels, because the longer duration of liabilities in If P&C Group than the duration of assets. If P&C has over the years decreased its combined ratio to counteract falling interest rates. Interest rate sensitivity in terms of the average duration of fixed income investments in If P&C was 1.4. The respective duration of insurance liabilities in If P&C was 6.5. Interest rate risk is managed by changing the duration of assets and interest rate derivatives based on the market view and risk appetite.

In the financial accounts most of the technical provisions are nominal, while a significant part, namely the annuity and annuity IBNR reserves, are discounted using interest rates in accordance with regulatory rules. Thereby If P&C is, from a financial accounting perspective, mainly exposed to changes in inflation and the regulatory discount rates. From an economic perspective, in which the cash flows of insurance liabilities are discounted with prevailing interest rates, If P&C is exposed to changes both in inflation and nominal interest rates. For more information see the table Sensitivities of Technical Provisions, If P&C, 2017 in the Non-life Underwriting Risks section.

Currency Risk

If P&C writes insurance policies that are mostly denominated in the Scandinavian currencies and in euro. In If P&C, the FX-transaction risk is reduced by matching technical provisions with investment assets in the corresponding currencies or by using currency derivatives. Hence, the so called structural FX risk is first mitigated as a rule after which If P&C can open short or long FX positions (active FX risk) within its FX risk limits. The transaction risk positions of If P&C against SEK are shown in the table Transaction Risk Position, If P&C 31 December 2017. The table shows the net transaction risk exposures and the changes in the value of positions given a 10 per cent decrease in the value of the base currency.

Transaction Risk Position
If P&C, 31 December 2017

	Base currency	EUR	USD	JPY	GBP	SEK	NOK	CHF	DKK	Other	Total, net
If P&C	**SEKm**										
Insurance operations		-3,472	-96	0	-2	-25	-2,125	-9	-820	-15	-6,564
Investments		1,876	1,495	0	0	0	2,147	0	68	1	5,587
Derivatives		1,494	-1,397	0	3	28	56	9	750	11	955
Total transaction risk, net position, If P&C		**-101**	**2**	**0**	**1**	**3**	**79**	**0**	**-2**	**-4**	**-22**
Sensitivity: SEK -10%		-10	0	0	0	0	8	0	0	0	-2

If P&C's transaction risk position in SEK represents exposure in foreign subsidiaries/branches within If P&C with base currency other than SEK

In addition to transaction risk, If P&C is also exposed to translation risk which at group level stems from foreign operations with other base currencies than SEK.

Liquidity Risk

In If P&C, liquidity risk is limited, since premiums are collected in advance and large claims payments are usually known a long time before they fall due. Liquidity risks are managed by cash management functions which are responsible for liquidity planning. Liquidity risk is reduced by having investments that are readily tradable in liquid markets. The available liquid financial assets, being that part of the assets which can be converted into cash at a specific point in time, are analysed and reported to the ORSA Committee.

The maturities of technical provisions and financial assets and liabilities are presented in the table Cash Flows According to Contractual Maturity, If P&C, 31 December 2017. The average maturity of fixed income investments was 2.7 years in If P&C. The table shows the financing requirements resulting from expected cash inflows and outflows arising from financial assets and liabilities as well as technical provisions.

Cash Flows According to Contractual Maturity
If P&C, 31 December 2017

	Carrying amount total			Cash flows						
EURm	Carrying amount total	Carrying amount without contractual maturity	Carrying amount with contractual maturity	2018	2019	2020	2021	2022	2023-2032	2033-
If P&C										
Financial assets	13,115	1,883	11,232	2,836	2,098	2,321	2,322	1,426	325	318
of which interest rate swaps	0	0	0	0	0	0	0	0	0	0
Financial liabilities	940	15	925	-722	-12	-13	-326	-3	0	0
of which interest rate swaps	2	0	2	-1	-1	-1	0	-3	0	0
Net technical provisions	8,900	0	8,900	-3,019	-1,048	-628	-504	-310	-2,038	-1,885

In the table, financial assets and liabilities are divided into contracts that have an exact contractual maturity profile, and other contracts. Only the carrying amount is shown for the other contracts. In addition, the table shows expected cash flows for net technical provisions, which by their nature, are associated with a certain degree of uncertainty.

If P&C Group has a relatively low amount of financial liabilities and thus Group's respective refinancing risk is relatively small.

Counterparty Default Risks

In If P&C the major three sources of counterparty risk are reinsurance, financial derivatives and other receivables.

Counterparty default risk arising from receivables from policyholders and other receivables related to commercial transactions is very limited, because non-payment of premiums generally results in cancellation of the insurance policies.

Reinsurance Counterparty Risk

In If P&C reinsurance is used regularly and If P&C have number of programs in place. If P&C is using reinsurance to (i) utilize its own capital base efficiently and reduce cost of capital, (ii) limit large fluctuations of underwriting results and (iii) have access to reinsurers' competence base. The Reinsurance Committee ("RC") is a collaboration forum for reinsurance related issues in general and shall give its opinion on and propose actions in respect of such issues. The committee shall consider and propose changes to the Reinsurance Policy and the Internal Reinsurance Policy. The Chairman is responsible for reporting policy deviations and other issues dealt with by the committee.

The distribution of reinsurance receivables and reinsurers' portion of outstanding claims on 31 December 2017 per rating category is presented in the table Reinsurance Recoverables and Pooled Solutions, If P&C, 31 December 2017 and 31 December 2016.

Reinsurance Recoverables and Pooled Solutions
If P&C, 31 December 2017 and 31 December 2016

	31 Dec 2017		31 Dec 2016	
Rating	**Total EURm**	**% of total**	**Total EURm**	**% of total**
AAA	0	0%	0	0%
AA+ - A-	59	27%	102	41%
BBB+ - BBB-	1	1%	2	1%
BB+ - C	0	0%	0	0%
D	0	0%	0	0%
Non-rated	0	0%	2	1%
Captives and statutory pool solutions	160	73%	140	57%
Total	**220**	**100%**	**246**	**100%**

Because the recoverables and pooled solutions reported above are not covered by collaterals the whole amount is exposed to counterparty risk.

The Reinsurance Security Committee ("RSC") shall give input and suggestions to decisions in respect of various issues regarding reinsurance default risk and risk exposure, as well as proposed deviations from the Reinsurance Security Policy. The Chairman is responsible for reporting policy deviations and other issues dealt with by the committee. If P&C has a Reinsurance Security Policy that sets requirements for the reinsurers' minimum credit ratings and the maximum exposure to individual reinsurers. Also, the own credit-analysis plays a central role when counterparties are selected.

As seen from above table most of the reinsurers are having either AA- or A- rating. The ten largest individual reinsurance recoverables amounted to EUR 165 million, representing 72 per cent of the total reinsurance recoverables. If P&C's largest non-captive individual reinsurer is Munich Re (AA-) accounting for 39 per cent of the total non-captive reinsurance recoverables.

The cost of risk transfer related to the reinsurance recoverables and pooled solutions amounted to EUR 52.3 million. Of this amount, 100 per cent was related to reinsurance counterparties with a credit rating of A- or higher.

Counterparty Risk Related to Financial Derivatives

In If P&C, the default risk of derivative counterparties is a by-product of managing market risks. In If P&C the role of long term interest rate derivatives has been immaterial and counterparty risk stems mainly from short-term FX-derivatives. The counterparty risk of bilaterally settled derivatives is mitigated by careful selection of counterparties; by diversification of counterparties to prevent risk concentrations and by using collateral techniques, e.g. ISDA Master Agreements backed by Credit Support Annexes. During 2016 If P&C started to settle interest rate swaps in central clearing houses, which while further mitigating bilateral counterparty risk also exposes If P&C to the systemic risk related to centralised clearing parties.

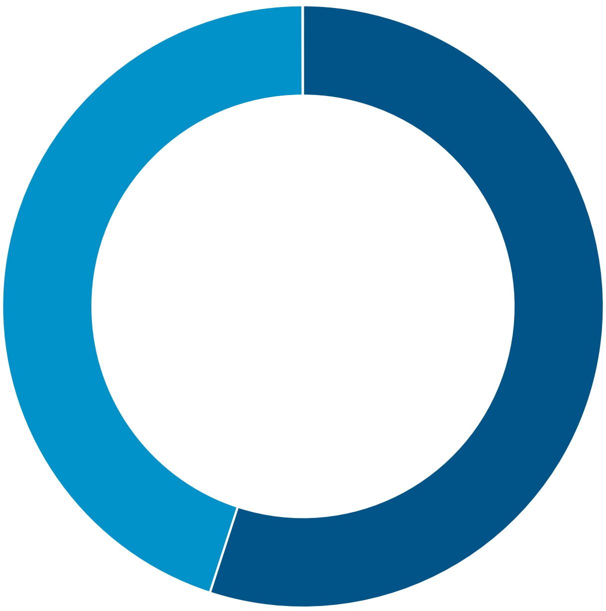
Topdanmark Group

Underwriting Risks

Non-Life Underwriting and Risks

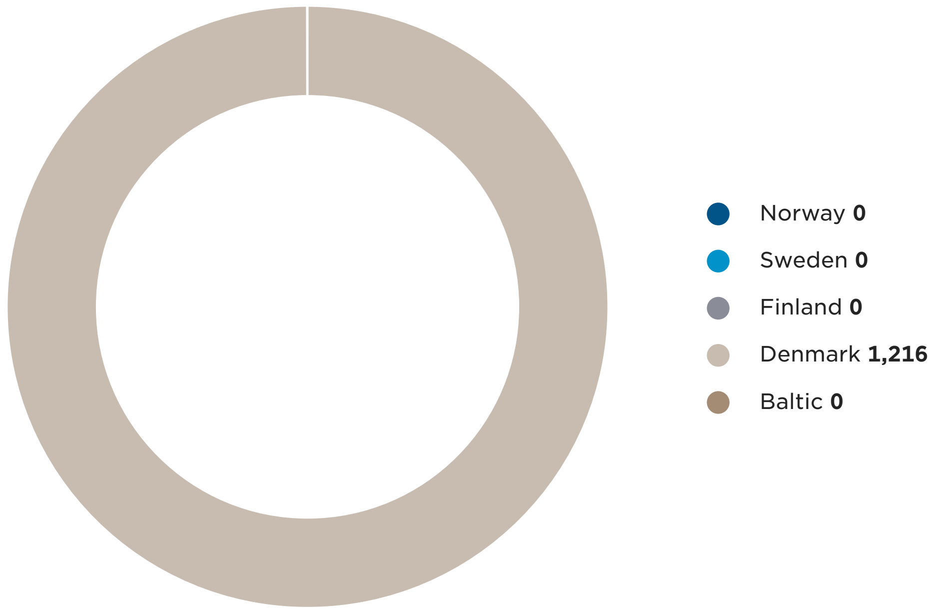
As shown in the below figure Breakdown of Gross Written Premiums by Business Area, Country and Line of Business, Topdanmark's insurance portfolio is diversified across Business Areas and Lines of Business.

Breakdown of Gross Written Premiums by Business Area
Topdanmark, 2017, total EUR 1,216 million

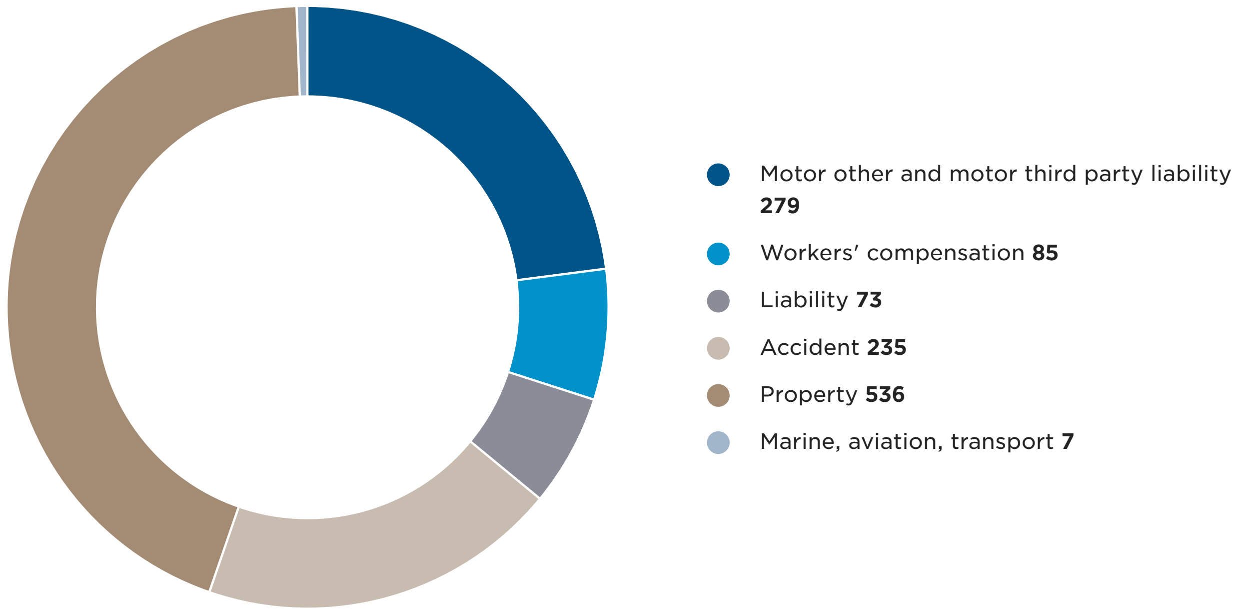


- Private **669**
- Commercial **547**
- Industrial **0**
- Baltic **0**

Breakdown of Gross Written Premiums by Country
Topdanmark, 2017, total EUR 1,216 million



Breakdown of Gross Written Premiums by Line of Business
Topdanmark, 2017, total EUR 1,216 million



Premium and Catastrophe Risk and Their Management and Control

The main underwriting risk that influence the performance is catastrophe events. However, Topdanmark Forsikring has a very comprehensive reinsurance programme in place contributing to the low level of underwriting risk. The largest retention level of DKK 100 million plus reinstatement for each event is on storm events. The maximum retention on fire events is DKK 25 million and in workers' compensation up to DKK 1 billion is covered with a retention of DKK 50 million.

With certain restrictions, terror is covered by the reinsurance contracts. A national guarantee scheme of DKK 15 billion covering terror claims including an element of NBCR (nuclear, biological, chemical, radiological) has been established. In January 2017, the market retention was DKK 9.9 billion. To cover this market retention the Danish non-life companies have established a NBCR terror pool. In this pool for 2017, reinsurance cover was DKK 4.5 billion after DKK 0.5 billion.

Premium risk reduction measures taken at different levels of operations are as follows:

- Collection of data on risk and historical damage
- Use of collected and processed data in profitability reporting, risk analyzes and in the internal model
- Ongoing follow-up on risk developments as well as quarterly forecasts for future risk development
- Correct pricing using statistical model tool including customer scoring tools
- Reinsurance cover that reduces the risk especially for disaster damage
- Ongoing follow-up on the risk picture and reinsurance coverage in the Risk Committee.

In order to maintain product and customer profitability, Topdanmark monitors changes in its customer portfolios. Provisions are recalculated and the profitability reports are updated in the same context on a monthly basis. Based on this reporting, trends in claim levels are carefully assessed and price levels may be adjusted if considered necessary.

In the private market segment, customer scoring is used and customers are divided into groups according to their expected profitability levels. The customer scoring has two roles. First it helps to maintain the balance between the individual customer's price and risk. Secondly it facilitates the fairness between individual customers by ensuring that no customers are paying too large premiums to cover losses from customers who pay too small premiums.

The historical profitability of major SME customers with individual insurance schemes is monitored using customer assessment systems.

In addition to the above described analysis Topdanmark continuously improves its administration systems to achieve more detailed data which in turn enables it to identify the claims trends at an earlier point in time and compile information on the constituent parts of the various types of claims.

The non-life risk scenarios can be found in the next table.

Non-Life Insurance Risk Scenarios
Topdanmark Forsikring, 31 December 2017 and 31 December 2016

Risk scenarios EURm after taxation and pension return tax	2017	2016
Non-life insurance		
Underwriting risk		
Combined ratio - 1bp increase	-9.4	-9.3
Provision risk		
Provision on own account - 1% increase	-13.1	-13.2
Storm claims up to DKK 5,100m	-10.5	-10.5

Reserve Risk and Its Management and Control

The insurance lines of business are divided into short-tail i.e. those lines where the period from notification until settlement is short and long-tail i.e. those lines where the period from notification until settlement is long. Examples of short-tail lines in Topdanmark Forsikring are building, personal property and comprehensive motor insurance. Long-tail lines relate to personal injury and liability such as workers' compensation, accident, motor third party insurance and commercial liability.

Composition of Topdanmark's Non-Life Overall Provisions for Outstanding Claims
31 December 2017 and 31 December 2016

Provisions for outstanding claims, %	2017	2016
Short-tail	11.0	12.7
Annuity provisions in workers' compensation	23.0	24.3
Other claims provisions in workers' compensation	25.2	23.0
Accident	27.2	25.6
Motor personal liability	10.0	10.7
Commercial liability	3.5	3.6

Due to the longer period of claims settlement the long-tail lines of business are generally riskier than the short-tail lines. It is not unusual that claims in long-tail lines are settled three to five years after notification and in rare cases up to ten to fifteen years.

The reserve risk is calculated using Topdanmark's partial internal model for insurance risk.

Workers' compensation claims provision has by far the biggest risk, followed by the other long-tail claims provisions which mainly consist of personal injury claims.

During such a long period of settlement, the levels of compensation could be significantly affected by changes in legislation, case-law or practice in the compensation of damages adopted by, for example, the Danish Labour Market Insurance which decides on compensation for injury and loss of earnings potential in all cases of serious industrial injuries. The practice adopted by the Danish Labour Market Insurance also has some impact on the levels of compensation for accident and personal injury within motor, liability and commercial liability insurance.

The provisioning risk represents mostly the ordinary uncertainty of calculation and claims inflation, i.e. an increase in the level of compensation due to the annual increase in compensation per policy being higher than the level of general indexation or due to a change in judicial practice/legislation. The sufficiency of the provisions is tested in key lines by calculating the provisions using alternative models as well, and then comparing the compensation with information from external sources.

The actuarial team has a continuous dialogue with the claims departments on any changes in the practices regarding new legislation, case law or compensation practices as well as on the impact of such changes on the routines used to calculate individual provisions.

Life Underwriting Risks

During the latest two years, premiums were split between products as follows.

Sources of Gross Life Premiums
Topdanmark, 2017 and 2016

EURm	2017	2016
With-profits schemes	74.9	89.2
Unit-linked schemes	220.7	195.3
Group life	68.3	71.8
Regular premiums	**363.9**	**356.4**
With-profits schemes	52.9	63.5
Unit-linked schemes	691.3	578.2
Single Premiums	**744.2**	**641.7**
Gross premiums	**1,108.2**	**998.0**

The focus of new sales is on unit-linked schemes and their premiums are almost 83 per cent of the gross premium income. The above table also shows that single premium products are more common than regular premium products. However, the regular premiums are growing steadily while the single premiums are fluctuating more from year to year.

The risk inherent in the life business is first of all related to the with-profit technical provisions. When the majority of new contracts are written as unit-link contracts, the risk will not increase as much as the volume of premiums and total provisions.

Result of Life Insurance
Topdanmark, 2017 and 2016

EURm	2017	2016
Investment return on shareholders' equity	14.6	9.6
Sales and administration	-3.4	-5.7
Insurance risk	2.3	1.7
Risk premium	19.8	19.8
Profit on life insurance	**33.4**	**25.4**

The main risks of Topdanmark Livsforsikring can be summarized as follows:

- Limited loss-absorbing buffers combined with low interest rates environment
- Disability risk
- Longevity risk

Falling interest rates and, in particular, sustained low interest rates along with prolonged lives represent a significant risk scenario for insurers with guaranteed benefits as there will be a reduction of the individual bonus potentials used for loss absorption.

When an insured event occurs, the effect on the profit will depend on the size of loss absorbing capacity (LAC) of the reserves. When the loss absorving capacity is higher than the losses, the customers themselves cover the losses.

Life Insurance Underwriting Risk Control

In general Topdanmark Livsforsikring has continuous focus on the solvency position, the changes in the individual risks and the development of the loss-absorbing buffers. The latter is important because over time it can level out the market and insurance risks within the individual risk groups. Hence, the loss-absorbing buffers are a crucial part of the with profit concept in leveling of yields and claims over time.

The scenario-based Solvency Capital Requirement is calculated quarterly. When deemed necessary, due to market developments, the frequency of calculation is increased and, if necessary, the number and type of scenarios are increased.

Trends in product claim levels are assessed on top of the calculation of the insurance provisions. Profitability models are applied systematically as a follow-up on customer and portfolio levels. This assessment is used to identify price adjustment needs.

Loss Absorbing Buffers in the Event of Low Interest Rates

Customers' individual and collective bonus potential together creates the loss absorbing buffers in life insurance against any losses incurred by customers on investment activities.

Low interest rates mean that the market value of the guarantees granted is high, and hence the related individual bonus potential is low. The lower the individual bonus potential, the higher the risk of any losses to be absorbed wholly or partially by shareholder's equity. If interest rates are high, the same losses could, to a larger degree, be absorbed by the bonus potential.

Declines in the collective bonus potential are most frequent, due to the investment return being lower than the annual addition of interest to deposits. Declines in collective bonus potential are also possible if interest rates are relatively high.

In order to protect shareholders' equity, in general it will be relevant to reduce market risks in the event of lower interest rates.

All policies have been split into contribution groups according to the guaranteed benefit scheme. For all contribution groups there are separate loss absorbing buffers and hence in each contribution group, the separate investment policy must be in line with risk taking capacity to ensure the ability to meet the guaranteed benefits. Market risk is adjusted continuously in accordance with the risk capacity of the contribution groups, and the movements in interest rates are monitored so that risk reducing actions can be taken when needed.

Disability

Disability risk is the risk of increased disability intensity or declines in the rates of resumption of work. Losses may incur due to an increase in disability frequency or due to inadequate health evaluation when the policy is written.

Extra costs, due to a permanent change in disability risk, will be partially covered by individual and collective bonus potential. The remainder affects profit/loss for the year and consequently shareholders' equity.

Longevity

Longevity risk is the risk that customers with life dependent policies, primarily annuities, live longer than expected. That will increase provisions for lifetime products.

Extra costs, due to longer lifetimes, will be partially covered by individual and collective bonus potential. The remainder affects profit/loss for the year and consequently shareholders' equity.

Following risk reduction measures and methods are used in Topdanmark Livsforsikring:

- All policies in the average return environment are divided according to the granted benefit guarantee and the investment policy is organized to ensure the ability to honor the guarantees
- Market risk can be adjusted freely in relation to the individual customer groups' risk capacity
- Normal fluctuations in ROI and risk results in the average interest rate environment are captured by bonus potentials per contribution group
- The individual bonus potentials in the average return environment are protected by cross-border protection
- Reinsurance
- Prices for death and disability are adjusted continuously in relation to the market situation and the observed injury history
- New subscription basis changes as needed

Establishment of business processes that ensure that the products are sold at the right price / risk mix

The life risk scenarios can be found in the next table.

Risk Scenarios in Life Insurance
Topdanmark, 31 December 2017 and 31 December 2016

Risk scenarios EURm after taxation and pension return tax	2017	2016
Life insurance		
Disability intensity - 35% increase*	-1.4	-1.6
Mortality intensity - 20% decline	-3.7	-4.2

*35% increase first year, subsequently 25%, coincident with 20% decline in reactivation rates

To monitor effectivity of the above risk reduction methods over time Topdanmark Risk Committee continuously monitors the company's risk profile and reinsurance cover. Also forecasts are followed up.

Market Risks

In general, the long term value creation shall be based mainly on the acceptance of insurance risks. However, to supplement the group's profit from its insurance activities, Topdanmark accepts a certain level of financial market risks as well, given its strong liquidity position and stable, high earnings from insurance operations. Hence, in addition to fixed income instruments Topdanmark has invested, among other things, in equities, properties and CDOs in order to improve the average investment return.

However, market risks shall be limited to the extent that is considered appropriate, even if it is highly probable that the company gains the profit even in the very unfavourable financial market scenarios. In addition, large risk exposures or highly correlated risks shall be covered to prevent unnecessary losses and market risks originating from insurance operations. The investment portfolio shall be managed in a way that market risk taking shall not endanger the normal operations or implementation of planned actions in unfavourable market conditions.

To reach the above general goals, the Investment Policy sets the company's objectives, strategies, organization and reporting practices on investments. The investment strategy is more precisely determined in terms of market risk limits and specific requirements for certain types of positions and sub-portfolios (risk appetite). The investment strategy is determined by the Board and revised at least once a year. Appropriate financial risk mitigation techniques are used.

When selecting the investment assets, a portfolio composition that matches the risk features of the corresponding liabilities is sought. The purpose of the policy is also to ensure that the company has implemented effectively the organization, systems and processes necessary to identify, measure, monitor, manage and report on investment risks to which it is exposed.

At the same time, the policy sets the framework for investment of customers' savings, schemes of right to bonus and link savings (customer funds) in Topdanmark Livsforsikring, so that the company can continue to offer attractive savings products to its clients with competitive returns in relation to the accepted investment risks.

In addition to Investment Policies, companies have a capital plan and a capital emergency plan if sudden changes occur in the asset or liability side.

When market risks are measured and managed, all exposures are included, regardless of whether they arise from active portfolio management on the investment side or from annuities which are considered as market risk.

Asset Allocations -Topdanmark Group Excluding Life Insurance

As described earlier, in life insurance different contribution groups have their own investment strategies and their loss absorbing buffers and hence it is not relevant to assess allocations and returns of these assets in isolation to their respective contribution groups.

Hence, in the two below tables the assets' allocations and annual investment returns without assets covering life insurance liabilities are presented.

Investment Allocation Topdanmark Group Excluding Life Insurance
31 December 2017 and 31 December 2016

	Topdanmark 31 Dec 2017		Topdanmark 31 Dec 2016	
Asset class	Market value, EURm	Weight	Market value, EURm	Weight
Fixed income total	**2,218**	**78%**	**2,081**	**77%**
Government and mortgage bonds	1,874	66%	1,672	62%
Credit bonds	6	0%	29	1%
Index linked bonds	38	1%	52	2%
CDOs	78	3%	75	3%
Money market securities and cash	223	8%	253	9%
Listed equity total	**127**	**4%**	**122**	**5%**
Danish equities	36	1%	40	1%
Equities outside Denmark	91	3%	82	3%
Alternative investments total	**187**	**7%**	**177**	**7%**
Real estate	145	5%	134	5%
Private equity	42	1%	43	2%
Assets related to I/A	**327**	**11%**	**310**	**12%**
Asset classes total	**2,859**	**100%**	**2,690**	**100%**

The exposure in equities outside Denmark and credit bonds has been adjusted by the use of derivatives. Private Equity also includes direct holdings in non-listed equities. The class of "Assets related to I/A" (illness/accident) comprises the investments in Topdanmark Livsforsikring, (the life insurance company) corresponding to the size of the illness/accident provisions.

The equity portfolios are well diversified and without major single positions, when associated companies are disregarded.

The main investment assets are government and mortgage bonds, which comprise primarily Danish government and mortgage bonds. The assets of this asset class are interest rate sensitive - to a significant extent equivalent to the interest rate sensitivity of the non-life insurance provisions. Consequently, the return on government and mortgage bonds should be assessed in connection with return and revaluation of non-life insurance provisions.

Credit bonds are composed of a well-diversified portfolio, primarily exposed to businesses in Europe and in the United States, predominantly in the investment grade segment. Index linked bonds comprise bonds – primarily Danish mortgage bonds – for which the coupon and principal are index-linked.

The CDO category primarily includes positions in CDO equity tranches. The underlying assets consist for the most part of senior secured bank loans, while the remaining part consists primarily of investment grade investments in corporate bonds. The real estate portfolio comprises mainly owner-occupied real estate.

Assets related to illness/accident insurance comprise the investments in Topdanmark Livsforsikring corresponding to the size of the illness/accident provisions.

Investment Allocation: Life Insurance

The asset allocation covering life insurance liabilities over all contribution groups is presented in the below table.

Investment Allocation
Topdanmark Livsforsikring, 31 December 2017 and 31 December 2016

Asset class	Topdanmark 31 Dec 2017 Market value, EURm	Weight	Topdanmark 31 Dec 2016 Market value, EURm	Weight
Fixed income total	**2,021**	**66%**	**2,040**	**65%**
Government and mortgage bonds	1,614	52%	1,540	49%
Index linked bonds	129	4%	149	5%
Credit and emerging market bonds	278	9%	351	11%
Listed equity total	**489**	**16%**	**592**	**19%**
Listed shares	489	16%	592	19%
Alternative investments total	**702**	**23%**	**543**	**17%**
Land and buildings	498	16%	479	15%
Unlisted shares	152	5%	14	0%
Shares in associated companies	52	2%	50	2%
Other investments	**-127**	**-4%**	**-49**	**-2%**
Other investments assets	-107	-3%	-34	-1%
Derivates to hedge against the net change in assets and liabilities	-19	-1%	-15	-0%
Asset classes total	**3,085**	**100%**	**3,125**	**100%**

Assets total relates to the products with guarantees and profit sharing. The exposure in equities outside Denmark and credit bonds has been adjusted by the use of derivatives. Unlisted shares include Private Equity and Hedge funds. Other investments assets include money markets securities, cash and derivatives.

Market Risks of Balance Sheet

Interest Rate Risk

Interest rate risk exposure is net of assets, liabilities and derivative instruments whose carrying amount is dependent on the interest rate level. In regards to insurance liabilities Topdanmark is exposed to interest rate risk due to provisions for outstanding claims in non-life insurance and guaranteed benefits in life insurance.

Shifting the market yield curve upwards and downwards and/or changing its shape leads to changed market values of assets and derivatives and thus to unrealized losses / gains.

When assessing the value and sensitivity of insurance provisions Topdanmark uses the Solvency ll discount curve that has its basis on market yield curve with volatility adjustment (VA). The VA component of DKK yield curve comprises a corrective element based on the spreads of Danish mortgage bonds and European credit bonds. The VA component was 51bp at the end of 2016 and 30bp at end of 2017.

Generally, the interest rate risk is limited and controlled by investing in interest-bearing assets in order to reduce the overall interest rate exposure of the assets and liabilities to the desired level. Therefore the Danish Mortgage Bonds and Government bonds have a central role in the asset portfolios. To further decrease the interest rate sensitivity of balance sheet, swaps and standard swaptions have been used for hedging purposes.

Equity Risk

The Danish part of the equity portfolio is composed on the basis of OMXCCAP index. The rest of the equity holdings are in the foreign equity portfolio that is based on MSCI World DC in its original currency. As a net result Topdanmark Group's equity holdings are well-diversified.

Breakdown of Listed Equity Investments by Geographical Regions
Topdanmark Group, 31 December 2017 and 31 December 2016

Topdanmark	31 Dec 2017 %	EURm	31 Dec 2016 %	EURm
Denmark	20%	162	23%	176
Norway	1%	8	1%	8

Sweden	1%	8	1%	8
Finland	0%	0	0%	0
Western Europe	22%	177	19%	148
East Europe	0%	0	0%	0
North America	55%	438	55%	420
Latin America	0%	0	0%	0
Far East	0%	0	0%	0
Japan	0%	0	0%	0
Total		**793**		**761**

Real Estate Risk

The real estates are all located in Denmark, with the material part in the areas of Copenhagen and Århus. The holding on group level is diversified over office buildings and residential buildings.

Spread Risk

Most of Topdanmark's interest-bearing assets comprise of AAA rated Danish mortgage bonds and debt issued or guaranteed by top-rated European states. The risk of losses is considered to be minor due to the high credit quality of the issuers and because investments have been made at spreads in balance with the company's desired risk ratio levels. The portfolio is well diversified both geographically and with regard to type of debtor and therefore the exposure to the concentration of risks is insignificant.

Investment policy stipulates that the portfolio must be well-diversified also in counterparties and that the portfolio must not be particularly exposed to individual counterparties. The main source of spread risk is the government and mortgage bonds. Due to high allocation of these investments in the portfolios, spread risk is the most material source of market risk SCR.

Concentration Risk

Topdanmark's fixed income investments by rating classes are presented in the table Interest-bearing Assets by Rating, Topdanmark, 2017 and 2016.

Interest-bearing Assets by Rating
Topdanmark, 31 December 2017 and 31 December 2016

Interest-bearing assets by rating, %	2017	2016
AAA+AA	77.8	77.8
A	2.9	2.7
BBB	0.6	0.3
<BBB	11.6	12.6
Money market deposits	7.1	6.7

The company has no significant concentrations on the investment side, except for the category "Treasury and mortgage bonds" that consists primarily of Danish government and AAA-rated Danish mortgage bonds.

As earlier described, these assets have an interest rate sensitivity that significantly corresponds to the interest rate sensitivity of the technical provisions.

Currency Risk

In practice the only source of currency risk is investment assets, because insurance liabilities are in Danish Krones. The currency risk is mitigated by derivatives and net exposures in different currencies are minor except in Euros.

Currency risk is assessed based on SCR. The value of base currency is shocked by 25 per cent against most of the currencies except 2.39 per cent against EUR where the largest exposure exists.

Inflation Risk

Future inflation is implicitly included in a number of the models Topdanmark uses to calculate its provisions. The general principles regarding the inclusion of an allowance for inflation differs between Workers' compensation and illness/ accident insurance. In the former the provisions are calculated on the basis of the expected future indexation of wages and salaries, and in latter on the basis of the expected net price index.

An expected higher future inflation rate would generally be included in the provisions with a certain time delay, while at the same time the result would be impacted by higher future indexation of premiums. In order to reduce the risk of inflation within workers' compensation and illness/accident insurance, Topdanmark uses index-linked bonds and derivatives to hedge a significant proportion of the expected cash flows sensitive to future inflation.

Market Risk Sensitivities

In the below table is a summary of selected market risks sensitivities. It can be seen from the table that the net effect of 1 percentage point parallel change in interest rates would be less than 10 per cent drop in equity or property prices.

Market Risk Sensitivities
Topdanmark, 31 December 2017 and 31 December 2016

Risk scenarios EURm After taxation and pension return tax		2017	2016
Market risk			
Interest-bearing assets	1 bp increase	-62.4	-79.5
Provisions for claims and benefits etc.	in effective interest rate	68.8	90.3
Index-linked bonds	5% loss	-2.8	-4.9
Equities	10% loss	-10.6	-11.0
CDOs < AA	10% loss	-8.0	-7.2
Properties	10% loss	-17.7	-16.7
Annual currency loss with an up to 2.5% probability		-0.8	-2.8

Liquidity Risk

Topdanmark Group has a strong liquidity position. Firstly, as premiums are paid prior to the beginning of the risk period the liquidity risk related to customers' payments is very limited. Secondly, the combination of insurance businesses is of a character in which it is highly unlike that liquidity shock could occur, because insurance liabilities are by their nature stable liabilities and in asset portfolios money market investments are complemented by a large portfolio of liquid listed Danish government and mortgage bonds.

Experience from quite significant and sudden movements in long-term interest rates have confirmed that liquidity of these assets is not significantly affected by market shocks.

The maturity structure of technical provisions is presented in the next table.

Cash Flows for Provisions
Topdanmark, 31 December 2017 and 31 December 2016

EURm	Book value	1 year	2-6 years	7-16 years	17-26 years	27-36 years	>36 years
Provisions for claims							
2016	1,774	543	692	382	171	74	23
2017	1,748	542	701	390	160	76	11
Life insurance provisions guarantees and profitsharing							
2016	3,286	354	994	1,411	663	219	72
2017	3,232	347	938	1,424	689	219	61

In the table the discounted cash flows related to the insurance activities are shown in general level. In cash flows for life insurance provisions, repurchase and rewrite to paid-up policies are included in 2017. Comparative figures for 2016 have not been adjusted. Life insurance provisions for unit-linked products are covered by corresponding investment assets and therefore not stated in the table.

Because of the above reasons Topdanmark's liquidity risk is primarily related to the parent company Topdanmark A/S.

Topdanmark A/S finances its activities and dividend programme by receiving dividend from its subsidiaries. Further financing requirements are covered by short term money market loans, typically with a maturity of one month or less.

Counterparty Default Risks

The default risk related to fixed income and equity investments is covered by spread-risk and equity-risk models in SCR calculations and hence they are not discussed in this context. Topdanmark is exposed to counterparty risk in both its insurance and investment activities.

The main sources of counterparty risk are deposits made to individual banks, derivative contracts with banks and current receivables from reinsurance companies with the addition of potential receivables that will arise in case of a 200-year event of disaster.

Reinsurance

Within insurance activities the reinsurance companies' ability to pay is the most important risk factor. Topdanmark minimises this risk by primarily buying reinsurance cover from reinsurance companies with a minimum rating of A- and by spreading reinsurance cover over many reinsurers. Accordingly, almost all of its storm cover has been placed with various reinsurance companies with rating A- or better.

For reinsurance counterparties, the Board approves security guidelines for how large a portion of a reinsurance contract can be placed per a separate reinsurer. This portion is dependent on the reinsurer's rating as well as on Topdanmark's own assessment of the reinsurer. Typically the largest risk concentrations may occur in case of catastrophe, including storms and cloudbursts, through one or more single major disaster events.

Financial Derivative Activities

To limit the counterparty risk of financial contracts, the choice of counterparties is restrictive, and collateral is required when the value of the financial contracts exceeds the predetermined limits. The size of the limits depends on the counterparty's credit rating and the terms of the contract.

Mandatum Life Group

Underwriting Risks

The development of insurance liabilities during 2017 is shown in the table Analysis of the Change in Provisions before Reinsurance, Mandatum Life, 2017.

Analysis of the Change in Provisions before Reinsurance
Mandatum Life, 31 December 2017

EURm	Liability 2016	Premiums	Claims paid	Expense charges	Guaranteed interest	Bonuses	Other	Liability 2017	Share %
Mandatum Life									
Unit-linked, excl. Baltic	**6,279**	**827**	**-544**	**-70**	**0**	**2**	**407**	**6,901**	**59%**
Individual pension insurance	1,313	60	-18	-15	0	0	69	1,411	12%
Individual life	2,346	243	-219	-22	0	0	143	2,491	21%
Capital redemption operations	1,977	454	-304	-25	0	0	130	2,231	19%
Group pension	643	71	-4	-9	0	2	65	768	7%
With profit and others, excl. Baltic	**4,804**	**116**	**-452**	**-35**	**131**	**1**	**-7**	**4,558**	**39%**
Group pension insurance. segregated portfolio	**1,142**	**4**	**-59**	**-1**	**24**	**0**	**-45**	**1,065**	**9%**
Basic liabilities. guaranteed rate 3.5%	715	4	-59	-1	24	0	5	687	6%
Reserve for decreased discount rate (3.5% -> 0.50%)	275	0	0	0	0	0	-14	261	2%
Future bonus reserves	153	0	0	0	0	0	-36	117	1%
Group pension	**2,117**	**35**	**-208**	**-6**	**67**	**1**	**-9**	**1,997**	**17%**
Guaranteed rate 3.5%	1,885	4	-179	-3	64	0	-27	1,744	15%
Guaranteed rate 2.5%. 1.5% or 0.0 %	232	31	-29	-3	4	0	18	253	2%
Individual pension insurance	**899**	**10**	**-139**	**-5**	**33**	**0**	**26**	**825**	**7%**
Guaranteed rate 4.5%	695	6	-86	-4	28	0	-16	624	5%
Guaranteed rate 3.5%	137	3	-27	-1	4	0	17	134	1%
Guaranteed rate 2.5% or 0.0%	67	1	-27	0	1	0	26	67	1%

Individual life insurance	**180**	**32**	**-33**	**-10**	**6**	**0**	**-12**	**162**	**1%**
Guaranteed rate 4.5%	58	4	-6	-1	3	0	-4	54	0%
Guaranteed rate 3.5%	86	10	-11	-3	3	0	-5	80	1%
Guaranteed rate 2.5% or 0.0%	35	18	-16	-6	0	0	-3	28	0%
Capital redemption operations	**28**	**0**	**-2**	**0**	**0**	**0**	**0**	**26**	**0%**
Guaranteed rate 3.5%	0	0	0	0	0	0	0	0	0%
Guaranteed rate 2.5% or 0.0%	28	0	-2	0	0	0	0	26	0%
Future bonus reserves	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0%**
Reserve for decreased discount rate	**273**	**0**	**0**	**0**	**0**	**0**	**52**	**325**	**3%**
Longevity reserve	**105**	**0**	**0**	**0**	**0**	**0**	**0**	**105**	**1%**
Assumed reinsurance	**2**	**1**	**-1**	**0**	**0**	**0**	**-2**	**1**	**0%**
Other liabilities	**59**	**34**	**-11**	**-13**	**0**	**0**	**-18**	**51**	**0%**
Total, excl. Baltic	**11,083**	**943**	**-996**	**-104**	**131**	**2**	**399**	**11,459**	**98%**
Baltic	**178**	**24**	**-27**	**-3**	**1**	**0**	**6**	**180**	**2%**
Unit-linked liabilities	161	21	-23	-2	0	0	9	165	1%
Other liabilities	17	3	-3	0	1	0	-2	15	0%
Mandatum Life group total	**11,261**	**967**	**-1,023**	**-107**	**132**	**2**	**406**	**11,638**	**100%**

Biometric Risks

Mandatum Life's main biometric risks are longevity, mortality and disability. In general the long duration of policies and restriction of Mandatum Life's right to change policy terms and conditions and tariffs increases biometric risks. A definition of the biometric risk can be found in Appendix 2 (Risk Definitions). If the premiums turn out to be inadequate and cannot be increased, technical provisions have to be supplemented by an amount corresponding to the increase in expected losses.

Longevity risk is the most critical biometric risk in Mandatum Life. Most of the longevity risk arises from the with profit group pension portfolio. With profit group pension policies have mostly been closed for new members for years and due to this the average age of members is relatively high, almost 70 years. In the unit-linked group pension and individual pension portfolio the longevity risk is less significant because most of these policies are fixed term annuities including death cover compensating the longevity risk.

The annual longevity risk result and longevity trend is analyzed regularly. For the segregated group pension portfolio, the assumed life expectancy related to the technical provisions was revised in 2014 and for the other group pension portfolios in 2002 and 2007. In total, these changes increased the 2017 technical provision by EUR 105 million (105) including a EUR 87 million longevity reserve for the segregated group pension portfolio. The cumulative longevity risk result has been positive since these revisions. The longevity risk result of group pension for the year 2017 was EUR 6.8 million (2.9).

The mortality risk result in life insurance is positive. A possible pandemic is seen as the most significant risk that could adversely affect the mortality risk result.

The insurance risk result of other biometric risks has been profitable overall, although the different risk results vary considerably. In the longer term, disability and morbidity risks are mitigated by the company's right to raise insurance premiums for existing policies in case the claims experience deteriorates.

The table Claim Ratios after Reinsurance, Mandatum Life, 2017 and 2016 shows the insurance risk result in Mandatum Life's Finnish life insurance policies. The ratio of the actual to expected claims costs was 76 per cent in 2017 (79). Sensitivity of the insurance risk result can also be assessed on the basis of the information in the table. For instance the increase of mortality by 100 per cent would increase the amount of benefit payments from EUR 12 million to EUR 24 million.

Claim Ratios After Reinsurance
Mandatum Life, 2017 and 2016

	2017			2016		
EURm	**Risk income**	**Claim expense**	**Claim ratio**	**Risk income**	**Claim expense**	**Claim ratio**
Life insurance	**47.6**	**23.5**	**49%**	**43.2**	**21.2**	**49%**
Mortality	29.0	12.0	41%	24.8	11.8	48%
Morbidity and disability	18.6	11.5	62%	18.4	9.4	51%

Pension	**85.6**	**77.5**	**91%**	**80.8**	**76.2**	**94%**
Individual pension	12.8	13.5	105%	12.0	12.8	107%
Group pension	72.8	64.0	88%	68.8	63.4	92%
Mortality (longevity)	68.2	61.4	90%	63.9	61.0	95%
Disability	4.6	2.6	57%	4.9	2.4	49%
Mandatum Life	**133.2**	**101.0**	**76%**	**124.0**	**97.4**	**79%**

The underwriting portfolio of Mandatum Life is relatively well diversified and does not include any major concentration of biometric risks. To further mitigate the effects of possible risk concentrations, Mandatum Life has catastrophe reinsurance in place.

In general biometric risks are managed by careful risk selection, by setting prices to reflect the risks and costs, by setting upper limits for the protection granted and by use of reinsurance. Mandatum Life's Underwriting Policy sets principles for risk selection and limits for sums insured. The Reinsurance Policy governs the use of Reinsurance. The Board approves the Underwriting policy, Reinsurance Policy, pricing guidelines and the central principles for the calculation of technical provisions.

The Insurance Risk Committee is responsible for maintaining the Underwriting Policy and monitoring the functioning of the risk selection and claims processes. The Committee also reports all deviations from the Underwriting Policy to the RMC. The Insurance Risk Committee is chaired by the Chief Actuary who is responsible for ensuring that the principles for pricing policies and for the calculation of technical provisions are adequate and in line with the underwriting and claims management processes.

Reinsurance is used to limit the amount of individual mortality and disability risks. The Board of Directors annually approves the Reinsurance Policy and determines the maximum amount of risk to be retained on the company's own account. The highest retention of Mandatum Life is EUR 1.5 million per insured. Mandatum Life has catastrophe cover to mitigate the effect of possible catastrophes.

The risk result is followed actively and thoroughly analyzed annually. Mandatum Life measures the efficiency of risk selection and the adequacy of tariffs by collecting information about the actual claims expenditure for each product line and each type of risk and comparing it to the claims expenditure assumed in insurance premiums of every risk cover.

Technical provisions are analyzed and the possible supplemental needs are assessed regularly. Assumptions related to technical provisions are reviewed annually. The adequacy of the technical provisions is tested quarterly. Tariffs for new policies are set and the Underwriting Policy and assumptions used in calculating technical provisions are updated based on adequacy tests and risk result analysis. Tariffs and prices, as well as the reinsurance principles and reserving principles are reviewed and approved annually by the Board of Directors of Mandatum Life.

Policyholder Behavior and Expense Risks

From an Asset and Liability Management point of view surrender risk is not material because in Mandatum Life around 90 per cent of with profit technical provisions consist of pension policies in which surrender is possible only in exceptional cases. Surrender risk is therefore only relevant in individual life and capital redemption policies of which the related technical provisions amounts to less than 5 per cent (below EUR 200 million) of the total with profit technical provisions. Furthermore, the supplements to technical provisions are not paid out at surrender which also reduces the surrender risk related to the with profit policies. Due to the limited surrender risk, the future cash flows of Mandatum Life's insurance liabilities are quite predictable.

Policy terms and tariffs cannot usually be changed materially during the lifetime of the insurance, which increases the expense risk. The main challenge is to keep the expenses related to insurance administrative processes and complex IT infrastructure at an effective and competitive level. In year 2017, the expense result of Mandatum Life Group was EUR 33 million (26). Mandatum Life does not defer insurance acquisition costs. Since 2012 the expense result has grown significantly, especially due to increased fee income from unit-linked business.

Expense Result
Mandatum Life Group, years 2008-2017

Year	Expense result, EURm
2017	33.2
2016	26.1
2015	26.8
2014	19.6

2013	15.3
2012	6.8
2011	9.8
2010	7.8
2009	5.2
2008	7.3

Market Risks

In Mandatum Life, the approach to market risk management is based on an analysis of technical provisions' expected cash flows, interest level and current solvency position. A common feature for all with profit technical provisions is the guaranteed rate and bonuses. The cash flows of Mandatum Life's technical provisions are relatively well predictable because in most of the company's with profit policies, surrenders and extra investments are not possible.

Mandatum Life's market risks arise mainly from equity investments and interest rate risk related to fixed income assets and insurance liabilities with a guaranteed interest rate. The most significant interest rate risk in the life insurance business is that fixed income investments will not, over a long period of time, generate a return at least equal to the guaranteed interest rate of technical provisions. The probability of this risk increases when market interest rates fall and stay at a low level. The duration gap between balance sheet's technical provisions and fixed income investments is constantly monitored and managed. Control levels based on internal risk capacity model are used to manage and ensure adequate capital in different market situations.

Mandatum Life has prepared for low interest rates on the liability side by e.g. reducing the minimum guaranteed interest rate in new contracts and by supplementing the technical provisions by applying a lower discount rate. In addition, existing contracts have been changed to accommodate improved management of reinvestment risk. Guarantees and other main features of with profit liabilities are presented in Section Underwriting Risks and Performance.

Fixed income investments and listed equity instruments form a major part of the investment portfolio, but the role of alternative investments - real estate, private equity, biometric and other alternative investments – is also material being 11.7 per cent.

Investment allocations and average maturities of fixed income investments as at year-end 2017 and 2016 are presented in the table Investment Allocation Mandatum Life, 31 December 2017 and 31 December 2016.

Investment Allocation
Mandatum Life, 31 December 2017 and 31 December 2016

	Mandatum Life 31 Dec 2017			Mandatum Life 31 Dec 2016		
Asset Class	**Market value, EURm**	**Weight**	**Average maturity, years**	**Market value, EURm**	**Weight**	**Average maturity, years**
Fixed income total	**3,953**	**63%**	**2.5**	**3,938**	**60%**	**2.7**
Money market securities and cash	904	14%	0.0	859	13%	0.5
Government bonds	54	1%	2.5	64	1%	5.1
Credit bonds, funds and loans	2,994	48%	3.2	3,009	46%	3.3
Covered bonds	163	3%	2.0	178	3%	2.6
Investment grade bonds and loans	1,793	29%	2.8	1,586	24%	2.7
High-yield bonds and loans	760	12%	3.2	884	13%	3.7
Subordinated / Tier 2	55	1%	7.3	52	1%	8.1
Subordinated / Tier 1	223	4%	6.6	310	5%	4.7
Hedging swaps	0	0%	-	0	0%	-
Policy loans	0	0%	1.8	6	0%	1.9
Listed equity total	**1,578**	**25%**	**-**	**1,737**	**26%**	**-**
Finland	494	8%	-	623	9%	-
Scandinavia	0	0%	-	1	0%	-
Global	1,084	17%	-	1,114	17%	-
Alternative investments total	**731**	**12%**		**907**	**14%**	**-**
Real estate	214	3%	-	278	4%	-

Private equity*	226	4%	-	269	4%	-
Biometric	16	0%	-	26	0%	-
Commodities	0	0%	-	0	0%	-
Other alternative	274	4%	-	334	5%	-
Trading derivatives	**2**	**0%**	**-**	**0**	**0%**	**-**
Asset classes total	**6,263**	**100%**	**-**	**6,582**	**100%**	**-**
FX Exposure, gross position	**679**	**0%**	**-**	**833**	**-**	**-**

*Private Equity also includes direct holdings in non-listed equities

Market Risks of Fixed Income and Equity Exposures

Fixed income and equity exposures are presented by Sector, Asset Class and Rating together with counterparty risk exposures relating to reinsurance and derivative transactions. Due to differences in the reporting treatment of derivatives, the figures in the table may not be fully comparable with other tables in this annual report.

Exposures by Sector, Asset Class and Rating
Mandatum Life, 31 December 2017

EURm	AAA	AA+ - AA-	A+ - A-	BBB+ - BBB-	BB+ - C	D	Non-rated	Fixed income total	Listed equities	Other	Counterparty risk	Total	Change 31 Dec 2016
Basic Industry	0	0	13	8	24	0	38	82	63	0	0	145	-124
Capital Goods	0	0	38	10	0	0	101	148	160	0	0	308	36
Consumer Products	0	24	104	79	30	0	33	270	238	0	0	508	-77
Energy	0	27	0	0	0	0	18	45	7	0	0	52	-28
Financial Institutions	0	481	1,463	244	24	0	0	2,212	38	1	2	2,253	191
Governments	0	0	0	0	0	0	0	0	0	0	0	0	-18
Government Guaranteed	0	0	0	0	0	0	0	0	0	0	0	0	0
Health Care	0	29	17	8	42	0	58	153	47	0	0	200	11
Insurance	0	0	1	52	0	0	0	54	3	8	0	64	-14
Media	0	0	14	0	0	0	16	30	0	0	0	30	-11
Packaging	0	0	0	0	19	0	9	28	1	0	0	28	-40
Public Sector, Other	0	37	42	0	0	0	0	80	0	0	0	80	9
Real Estate	0	0	1	32	0	0	37	70	0	185	0	255	-56
Services	0	0	0	20	49	0	66	135	86	0	0	221	-10
Technology and Electronics	15	0	44	0	27	0	11	96	119	0	0	215	-17
Telecommunications	0	0	0	45	8	0	16	69	32	0	0	102	-6
Transportation	0	0	4	3	11	0	8	26	27	0	0	53	9
Utilities	0	2	1	115	25	0	0	142	0	0	0	142	-24
Others	0	0	0	0	4	0	2	7	0	36	0	42	-37
Asset-backed Securities	0	0	0	0	0	0	0	0	0	0	0	0	0
Covered Bonds	141	12	0	10	0	0	0	163	0	0	0	163	-15
Funds	0	0	0	0	0	0	142	142	760	500	0	1,402	-120
Clearing House	0	0	0	0	0	0	0	0	0	0	4	4	-1
Total	**155**	**612**	**1,741**	**626**	**263**	**0**	**555**	**3,952**	**1,578**	**731**	**6**	**6,267**	**-342**
Change 31 Dec 2016	**-22**	**-223**	**485**	**-90**	**-220**	**0**	**84**	**14**	**-159**	**-176**	**-21**	**-342**	

The role of non-investment grade bonds is material in Mandatum Life's portfolio although it has decreased from its highs. Within fixed income investments part of the money market securities issued by Nordic banks and cash in Nordic banks form a liquidity buffer within fixed income investments. At the moment the total amount of these investments is higher than what is needed for liquidity purposes.

Nordic equity exposure include almost only direct investments to Finnish equities and they account for almost one third of equity exposure. Two thirds of equity investments are globally allocated consisting mainly of fund investments, but the role of direct investments are increasing in that part of the portfolio as well.

Breakdown of Listed Equity Investments by Geographical Regions

Mandatum Life, 31 December 2017 and 31 December 2016

	31 Dec 2017		31 Dec 2016	
Mandatum Life	%	EURm	%	EURm
Denmark	0%	0	0%	0
Norway	0%	0	0%	0
Sweden	0%	0	0%	1
Finland	31%	494	36%	623
Western Europe	40%	637	31%	541
East Europe	1%	20	1%	19
North America	16%	251	24%	420
Latin America	0%	0	0%	0
Far East	11%	176	8%	135
Japan	0%	0	0%	0
Total		**1,578**		**1,737**

Alternative Investments

The role of alternative investments has been material in Mandatum Life over the years. The current allocation weight is 12 per cent. The weight of these investments will be maintained at current levels.

Within total portfolio the size of private equity investments has declined. At the same time Mandatum Life has increased its commitments in selectively picked high yield credit funds. These asset classes have been managed, in most cases, by external asset managers with the exception of the real estate portfolio which is managed by Sampo Group's own real estate management unit. The real estate portfolio includes both direct investments in properties and indirect investments in real estate funds as well as in shares of real estate companies and it has been quite stable.

Market Risks of Balance Sheet

The Board of Directors of Mandatum Life annually approves the Investment Policies for both segregated assets and other assets regarding the company's investment risks. These policies set principles and limits for investment portfolio activities and they are based on the features of insurance liabilities, risk taking capacity and shareholders return requirements.

The Investment Policy for segregated assets defines the risk bearing capacity and the corresponding control levels. Since the future bonus reserves of the segregated group pension portfolio is the first buffer against possible investment losses, the risk bearing capacity is also based on the amount of the future bonus reserve. Different control levels are based on the fixed stress scenarios of assets.

The Investment Policy for other investment assets defines the control levels for the maximum acceptable risk and respective measures to manage the risk. The control levels are set above the Solvency II SCR and are based on predetermined capital stress tests. The general objective of these control levels and respective guidelines is to maintain the required solvency. When the above mentioned control levels are breached, the ALCO reports to the Board which then takes responsibility for the decisions related to the capitalization and the market risks in the balance sheet.

The cash flows of Mandatum Life's with profit technical provisions are relatively predictable, because in most of the company's with profit products, surrenders and premiums are restricted. In addition the company's claims costs do not contain a significant inflation risk element.

The long-term target for investments is to provide sufficient return to cover the guaranteed interest rate plus bonuses based on the principle of fairness as well as the shareholder's return requirement with an acceptable level of risk. In the long run, the most significant risk is that fixed income investments will not generate an adequate return compared to the guaranteed rate. In addition to investment and capitalization decisions, Mandatum Life has implemented active measures on the liability side to manage the balance sheet level interest rate risk. The company has reduced the minimum guaranteed interest rate in new contracts, supplemented the technical provisions with discount rate reserves and adjusted policy terms and conditions as well as policy administration processes to enable more efficient interest rate risk management.

Interest Rate Risk

Mandatum Life is negatively affected when rates are decreasing or staying at low levels, because the duration of liabilities is longer than the duration of assets. Growing part of Mandatum Life's business, i.e. unit-linked and life and health business, is not interest rate sensitive, which partially mitigates whole company's interest rate risk.

The average duration of fixed income investments was 2.1 years including the effect of hedging derivatives. The respective duration of insurance liabilities was around 10 years. Interest rate risk is managed at the balance sheet level by changing the duration of assets and by using interest rate derivatives.

Currency Risk

Currency risk can be divided into transaction and translation risk. Mandatum Life is exposed to transaction risk, which refers to currency risk arising from contractual cash flows in foreign currencies.

In Mandatum Life, transaction risk arises mainly from investments in currencies other than euro as the company's technical provisions are almost completely denominated in euro. Mandatum Life does not automatically close its FX position in foreign currencies, but the currency risk strategy is based on active management of the currency position. The objective is to achieve a positive return relative to a situation where the currency risk exposure is fully hedged.

The transaction risk positions of Mandatum Life against EUR are shown in the table Transaction Risk Position, Mandatum Life, 31 December 2017. The table shows the net transaction risk exposures and the changes in the value of positions given a 10 per cent decrease in the value of the base currency.

Transaction Risk Position
Mandatum Life, 31 December 2017

	Base currency	EUR	USD	JPY	GBP	SEK	NOK	CHF	DKK	Other	Total, net
Mandatum Life	**EURm**										
Technical provisions		0	0	0	0	-2	0	0	0	0	-2
Investments		0	2,054	4	136	52	9	186	20	143	2,603
Derivatives		0	-1,744	-3	-134	77	102	-182	-13	-30	-1,928
Total transaction risk, net position, Mandatum Life		**0**	**310**	**1**	**2**	**127**	**111**	**4**	**7**	**113**	**674**
Sensitivity: EUR -10%		0	31	0	0	13	11	0	1	11	67

Liquidity Risks

Liquidity risk is relatively immaterial because liability cash flows in most lines of business are fairly stable and predictable and an adequate share of the investment assets are in cash and short-term money market instruments.

In life companies in general, a large change in surrender rates could influence the liquidity position. However in Mandatum Life, only a relatively small part of the insurance policies can be surrendered and it is therefore possible to forecast short-term cash flows related to claims payments with a very high accuracy.

The maturities of technical provisions and financial assets and liabilities are presented in the table Cash Flows According to Contractual Maturity, Mandatum Life, 31 December 2017. The average maturity of fixed income investments was 2.5 years in Mandatum Life. The table shows the financing requirements resulting from expected cash inflows and outflows arising from financial assets and liabilities as well as technical provisions.

Cash Flows According to Contractual Maturity
Mandatum Life, 31 December 2017

	Carrying amount total			Cash flows						
EURm	**Carrying amount total**	**Carrying amount without**	**Carrying amount with**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023-2032**	**2033-**

		contractual maturity	contractual maturity							
Mandatum Life										
Financial assets	6,210	3,287	2,923	486	381	773	345	768	397	16
of which interest rate swaps	2	0	2	0	0	0	0	0	1	2
Financial liabilities	168	0	168	-9	-4	-5	-5	-5	-64	-215
of which interest rate swaps	-1	0	-1	0	0	0	0	1	-2	0
Net technical provisions	4,026	0	4,026	-503	-328	-328	-300	-275	-1,908	-1,391

In the table, financial assets and liabilities are divided into contracts that have an exact contractual maturity profile, and other contracts. Only the carrying amount is shown for the other contracts. In addition, the table shows expected cash flows for net technical provisions, which by their nature, are associated with a certain degree of uncertainty.

Mandatum Life has one issued financial liability and thus refinancing risk is immaterial.

Counterparty Default Risks

In Mandatum Life the major three sources of counterparty risk are financial derivatives, reinsurance, and other receivables. Counterparty default risk arising from reinsurance or receivables from policyholders and other receivables related to commercial transactions is very limited.

Counterparty Risk Related to Financial Derivatives

In Mandatum Life, the default risk of derivative counterparties is a by-product of managing market risks. This stems from the fact that Mandatum Life is a frequent user of long-term interest rate derivatives in addition to FX-forwards and options.

The counterparty risk of bilaterally settled derivatives is mitigated by careful selection of counterparties; by diversification of counterparties to prevent risk concentrations and by using collateral techniques, e.g. ISDA Master Agreements backed by Credit Support Annexes. During 2016 Sampo Group companies started to settle interest rate swaps in central clearing houses, which while further mitigating bilateral counterparty risk also exposes Sampo Group companies to the systemic risk related to centralised clearing parties.

Risk Considerations at Sampo Group Level and Sampo plc

Sampo Group is first and foremost exposed to general performance of Nordic economies. However, Nordic economies typically are at any given time in different stages of their economic cycles, because of reasons like different economic structures and separate currencies. Also geographically Nordics as a large area is more a source of underwriting diversification than a concentration. Hence, inherently Nordic area is a good basis for diversified business.

To further maintain diversification of businesses Sampo Group proactively prevents concentrations to the extent possible by segregating the duties of separate business areas. As a result, separate companies have very few overlapping areas in their underwriting and investments activities. In spite of proactive strategic decisions on segregation of duties, concentrations in underwriting and investments may appear and hence liabilities and assets are monitored at the Group level to identify potential concentrations at single-name or risk factor level.

It is regarded that current business model where all companies have their own processes and agreements with counterparties is preventing accumulation of counterparty default risks and operational risks. Hence, these risks are managed at company level and it is considered that need to monitor them at group level is remote.

In addition to “segregation of duties at strategic level” -principle Sampo Group has two principles proactively preventing group risks. The amount of intragroup exposures between group companies are few and parent company is the only source of liquidity and the main source of capital within Group. These principles effectively prevent the contagion risk and hence potential problems of one company will not affect directly the other group companies.

Underwriting and market risk concentrations and their management are described in the next sections as well as parent company's role as risk manager of group-wide risks and as a source of liquidity.

Underwriting Risks at Sampo Group

With respect to the underwriting businesses carried out in the subsidiary companies, it has been established that If P&C, Topdanmark and Mandatum Life all operate within Nordics, but mostly in different geographical areas and in different lines of business and hence their underwriting risks are different by nature. There are some common risk factors like the life expectancy in Finland. Also in Denmark If P&C and Topdanmark have some overlapping areas. However, there are no material underwriting risk concentrations in the normal course of business.

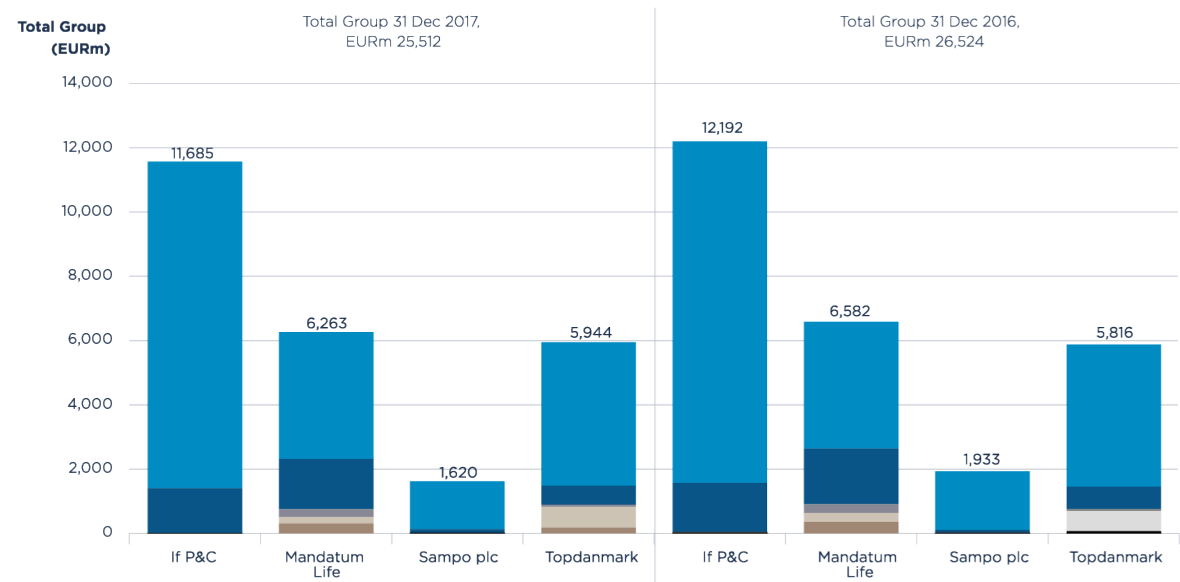
Consequently, business lines as such are contributing diversification benefits rather than a concentration of risks. This general risk picture has not changed with increased holding in Topdanmark, because it underwrites mainly Danish risks with focus on client bases which only marginally overlap with If P&C's client bases.

Market Risks at Sampo Group Level

For all subsidiaries, their insurance liabilities and the company specific risk appetite are the starting points for their investment activities. The insurance liabilities including loss absorbing buffers as well as the risk appetite of Mandatum Life, If P&C and Topdanmark differ, and as a result the structures and risks of the investment portfolios and balance sheet of the three companies differ respectively.

The total amount of Sampo Group's investment assets as at 31 December 2017 was EUR 25,512 million (EUR 26,524 million) as presented in the below figure. Mandatum Life's and Topdanmark's investment assets presented here do not include assets which cover unit-linked contracts.

Development of Investment Portfolios
If P&C, Mandatum Life, Sampo plc and Topdanmark, 31 December 2017 and 31 December 2016



	If P&C 2017	Mandatum Life 2017	Sampo plc 2017	Topdanmark 2017	If P&C 2016	Mandatum Life 2016	Sampo plc 2016	Topdanmark 2016
Fixed income	87%	63%	92%	75%	87%	60%	94%	76%
Listed equity	12%	25%	7%	10%	13%	26%	5%	12%
Private equity*	0%	4%	1%	1%	0%	4%	1%	1%
Real estate	0%	3%	0%	11%	0%	4%	0%	11%
Other alternative investments	0%	5%	0%	3%	0%	5%	0%	1%

Sampo plc's figures don't include debt instruments issued by the insurance subsidiaries.
* Private Equity also includes direct holdings in non-listed equites.

Investment activities and market risk taking are arranged pro-actively in such a way that there is virtually no overlap between the wholly-owned subsidiaries' single-name risks except with regards to Nordic banks where companies have their extra funds in forms of the short-term money market assets and cash. From asset side diversification perspective Topdanmark is a positive factor, because the role of Danish assets is dominant in portfolios and especially the role of Danish covered bonds is central. In Sampo Group's other insurance companies' portfolios the weight of Danish investments has been immaterial.

In the next paragraphs concentrations by homogenous risk groups and by single names are presented first and then balance sheet level risks are discussed shortly.

Holdings by Industry, Geographical Area and Asset Class

In regards to **Fixed Income and Equity Exposures** Financial Institutions and covered bonds have material weight in group-wide portfolios whereas the role of public sector investments is quite limited. Most of these assets are issued by Nordic corporates and institutions. Most corporate issuers, although being based in Nordic countries, are operating at global markets and hence their performance is not that dependent on Nordic markets. This together with steadily growing portion of non-Nordic names in portfolios, is decreasing the concentration risk related to Nordics.

Exposures by Sector, Asset Class and Rating
Sampo Group excluding Topdanmark, 31 December 2017

EURm	AAA	AA+ - AA-	A+ - A-	BBB+ - BBB-	BB+ - C	D	Non-rated	Fixed income total	Listed equities	Other	Counterparty risk	Total	Change 31 Dec 2016
Basic Industry	0	0	44	66	25	0	113	248	104	0	0	351	-78
Capital Goods	0	0	127	63	0	0	131	321	682	0	0	1,002	32
Consumer Products	0	131	326	380	30	0	109	976	549	0	0	1,525	-28
Energy	0	68	30	0	53	0	172	323	13	0	0	336	-165
Financial Institutions	0	2,100	3,258	930	46	0	26	6,360	118	1	9	6,489	-428
Governments	92	0	0	0	0	0	0	92	0	0	0	92	-49
Government Guaranteed	43	77	0	0	0	0	0	120	0	0	0	120	-36
Health Care	7	39	50	50	42	0	65	253	113	0	0	383	-55
Insurance	0	0	41	115	27	0	5	206	3	25	60	277	-19
Media	0	0	14	0	0	0	38	52	0	0	0	52	-25
Packaging	0	0	0	0	19	0	14	33	1	0	0	33	-40
Public Sector, Other	674	192	42	0	0	0	0	908	0	0	0	908	-114
Real Estate	0	6	92	112	8	0	526	744	0	207	0	951	35
Services	0	0	0	85	72	0	155	312	122	0	0	434	-15
Technology and Electronics	23	0	79	0	27	0	45	175	123	0	0	298	-37
Telecommunications	0	0	0	165	8	0	65	238	92	0	0	331	12
Transportation	0	72	11	55	11	0	203	353	34	0	0	387	-55
Utilities	0	2	32	359	70	0	44	506	0	0	0	506	-101
Others	0	26	0	0	4	0	15	45	0	36	0	82	-14
Asset-backed Securities	0	0	0	0	0	0	0	0	0	0	0	0	0
Covered Bonds	3,161	75	0	10	0	0	0	3,247	0	0	0	3,247	102
Funds	0	0	0	0	0	0	142	142	1,187	521	0	1,850	-96
Clearing House	0	0	0	0	0	0	0	0	0	0	17	17	13
Total, Excluding Topdanmark	**4,000**	**2,788**	**4,146**	**2,391**	**443**	**0**	**1,885**	**15,653**	**3,140**	**790**	**87**	**19,670**	**-1,163**
Change 31 Dec 2016	**-38**	**-1,198**	**641**	**163**	**-362**	**0**	**71**	**-722**	**-210**	**-182**	**-48**	**-1,163**	

Most of the financial institutions and covered bonds are in the Nordic countries as can be seen in the table Fixed Income Investments in Financial Sector, Sampo Group excluding Topdanmark, 31 December 2017.

Fixed Income Investments in Financial Sector
Sampo Group excluding Topdanmark, 31 December 2017

EURm	Covered bonds	Cash and money market securities	Long-term senior debt	Long-term subordinated debt	Total	%
Sweden	2,092	42	721	365	3,221	33.6%

Finland	108	1,584	243	6	1,942	20.3%
Norway	670		324	291	1,285	13.4%
United States			670		670	7.0%
Denmark	204	3	277	142	626	6.5%
United Kingdom	12	517	68	18	615	6.4%
France	21	179	58		258	2.7%
Netherlands			226	18	244	2.5%
Canada	111		113		224	2.3%
Switzerland			147		147	1.5%
Australia	17		92		109	1.1%
Iceland			91		91	1.0%
Germany			50	0	50	0.5%
Guernsey			25		25	0.3%
Estonia		22			22	0.2%
New Zealand			19		19	0.2%
Luxembourg	10				10	0.1%
Bermuda				10	10	0.1%
Cayman Islands			5		5	0.0%
Total	**3,247**	**2,348**	**3,129**	**852**	**9,576**	**100.0%**

The public sector exposure includes government bonds, government guaranteed bonds and other public sector investments as shown in the table Fixed Income Investments in Public Sector, Sampo Group excluding Topdanmark, 31 December 2017. The public sector has had a relatively minor role in Sampo Group's portfolios and these exposures have been mainly in the Nordic countries. In Topdanmark's portfolios AAA-rated government bonds and covered bonds have a material role.

Fixed Income Investments in Public Sector
Sampo Group excluding Topdanmark, 31 December 2017

EURm	Governments	Government guaranteed	Public sector, other	Total market value
Sweden	92		592	684
Norway			211	211
Finland		77	88	165
Germany		33		33
Japan			17	17
Denmark		10		10
Total	**92**	**120**	**908**	**1,120**

The exposures in fixed income instruments issued by non-investment grade issuers are significant, because a relatively small number of Nordic companies are rated. Further, many of the rated companies have a rating lower than triple-B (high yield) rating.

The listed equity investments of Sampo Group totaled EUR 3,934 million at the end of year 2017 (EUR 4,113 million). At the end of year 2017, the listed equity exposure of If P&C was EUR 1,448 million (EUR 1,527 million). The proportion of listed equities in If P&C's investment portfolio was 12.4 per cent. In Mandatum Life, the listed equity exposure was EUR 1,578 million at the end of year 2017 (EUR 1,737 million) and the proportion of listed equities was 25.2 per cent of the investment portfolio. In Topdanmark Group, the listed equity exposure was EUR 793 million at the end of year 2017 (EUR 761 million). Within Topdanmark Group, the allocation to listed equity is higher in the life company.

The geographical core of Sampo Group's equity investments is in the Nordic companies. The proportion of Nordic companies' equities corresponds to 46 per cent of the total equity portfolio. This is in line with Sampo Group's investment strategy of focusing on Nordic companies. However, these Nordic companies are mainly competing in global markets: only a few are purely domestic companies. Hence, the ultimate risk is not highly dependent on the Nordic economies. In the long run the proportion of investments outside of the Nordic countries has gradually increased, because the amount of companies issuing securities in the Nordic countries is limited and from a strategic point of view other geographical areas have recently provided interesting investment opportunities. A breakdown of the listed equity exposures of Sampo Group is shown in the figure Breakdown of Listed Equity Investments by Geographical Regions, Sampo Group 31.12.2017.

Breakdown of Listed Equity Investments by Geographical Regions
Sampo Group, 31 December 2017 and 31 December 2016

	2017		2016	
Sampo Group	**%**	**EURm**	**%**	**EURm**
Denmark	4%	167	5%	185
Norway	4%	157	5%	202
Sweden	24%	945	23%	953
Finland	14%	549	17%	700
Western Europe	25%	977	21%	861
East Europe	1%	20	0%	19
North America	20%	776	23%	929
Latin America	1%	28	1%	25
Far East	8%	313	6%	239
Japan	0%	0	0%	0
Total		**3,934**		**4,113**

Largest Holdings by Single Name

The largest exposures by individual issuers and counterparties are presented in the table Largest Individual Exposures by Issuer and by Asset Class, Sampo Group exluding Topdanmark, 31 December 2017. The largest single name investments in Topdanmark's portfolios are in AAA-rated Danish covered bonds.

Largest Individual Exposures by Issuer and by Asset Class
Sampo Group excluding Topdanmark, 31 December 2017

EURm Counterparty	Total fair value	% of total investment assets	Cash & short-term fixed income	Long-term fixed income, total	Long-term fixed income: Government guaranteed	Long-term fixed income: Covered bonds	Long-term fixed income: Senior bonds	Long-term fixed income: Tier 1 and Tier 2	Equities	Uncollateralized derivatives
Nordea Bank	1,606	8%	562	1,039	0	601	138	299	0	4
Danske Bank	1,134	6%	785	347	0	99	218	30	0	3
BNP Paribas	735	4%	698	37	0	0	37	0	0	0
Skandinaviska Enskilda Banken	675	3%	276	398	0	248	137	13	0	0
Svenska Handelsbanken	669	3%	-1	669	0	616	39	14	0	0
DnB	536	3%	0	536	0	226	205	105	0	0
Sweden	519	3%	0	519	0	0	519	0	0	0
Swedbank	516	3%	-1	517	0	352	154	11	0	0
Norway	320	2%	0	320	0	0	218	102	0	0
Volvo	256	1%	0	103	0	0	68	36	153	0
Total Top 10 Exposures	**6,965**	**36%**	**2,319**	**4,485**	**0**	**2,143**	**1,733**	**609**	**153**	**8**
Other	12,408	64%								
Total investment assets	**19,372**	**100%**								

The largest high-yield and non-rated fixed income investment single-name exposures are presented in the table Ten Largest Direct High Yield and Non-rated Fixed Income Investments, Sampo Group excluding Topdanmark, 31 December 2017. Furthermore, the largest direct listed equity exposures are presented in the table Ten Largest Direct Listed Equity Investments, Sampo Group, 31 December 2017.

Ten Largest Direct High Yield and Non-rated Fixed Income Investments and Direct Listed Equity Investments
Sampo Group excluding Topdanmark, 31 December 2017

Largest direct high yield and non-rated fixed income investments	Rating	Total fair value, EURm	% of total direct fixed income investments
High Street Shopping	NR	117	0.8%
Sponda	NR	89	0.6%
Teollisuuden Voima	BB+	80	0.5%
SkandiaBanken	NR	76	0.5%
IVG Polar	NR	57	0.4%
Ellevio	NR	52	0.3%
YIT	NR	46	0.3%
Grönlandet Södra	NR	44	0.3%
Aker BP	BB	44	0.3%
Nets	BB	40	0.3%
Total top 10 exposures		**646**	**4.2%**
Other direct fixed income investments		14,630	95.8%
Total direct fixed income investments		15,276	100.0%

Top 10 listed equity investments	Total fair value, EURm	% of total direct equity investments
Volvo	153	7.8%
Nobia	125	6.4%
Amer Sports	100	5.1%
ABB	90	4.6%
Veidekke	87	4.4%
Asiakastieto	70	3.6%
Sectra	66	3.4%
Husqvarna	64	3.3%
Hennes & Mauritz	61	3.1%
TeliaSonera	60	3.1%
Total top 10 exposures	**875**	**44.9%**
Other direct equity investments	1,076	55.1%
Total direct equity investments	1,952	100.0%

Balance Sheet Concentrations

In general Sampo Group is structurally dependent on the performance of Nordic economies as already described earlier. Sampo Group is also economically exposed to the low level of interest rates. The lower the rates and the “flatter” the yield curve, the more challenging the environment is for the current business models especially when duration of insurance liabilities is longer than asset duration in If P&C and Mandatum Life. In Topdanmark interest rate risk of balance sheet is minor and hence Topdanmark is not increasing interest rate risk at group level.

Sampo Group would benefit materially in case interest rates would rise, because economic value of insurance liabilities would decrease more than value of assets backing them. At the same time net interest income of Nordea should increase as well. During 2017 interest rates have continued their slow rise that started at the end of Q3/2016.

The Role of Sampo plc

Sampo plc is the long-term investor in Nordic financials and source of liquidity within the group. Hence, the healthy funding structure and the capacity to generate funds if needed are on continuous focus.

As of 31 December 2017 Sampo had long term strategic holdings of EUR 8,958 million and they were funded mainly by capital of EUR 7,714 million and senior debt of EUR 3,177 million. Average remaining maturity of senior debt was 3.7 years and EUR 1,250 million of it had a maturity longer than 5 years. Senior debt is used to fund other financial assets as well. The average maturity of sub-ordinated loans and fixed income instruments of EUR 554 million was three years. Funding structure of strategic holdings and other holdings can be considered strong.

The capacity to generate funds is dependent on leverage and liquidity buffers which can be inferred from the table Sampo plc Balance Sheet Structure, 31 December 2017 and 31 December 2017.

Sampo plc Balance Sheet Structure
31 December 2017 and 31 December 2016

EURm	31 Dec 2017	31 Dec 2016
Assets total	**10,939**	**11,196**
Liquidity	**1,199**	**1,439**
Investment Assets	**235**	**179**
Real estate	2	2
Fixed income	58	28
Equity & Private equity	175	148
Sub-ordinated loans	**496**	**637**
Equity holdings	**8,958**	**8,900**
Subsidiaries	3,401	2,370
Associated	5,557	6,530
Other assets	**50**	**41**

EURm	31 Dec 2017	31 Dec 2016
Liabilities total	**10,939**	**11,196**
CP's issued	**293**	**671**
LT Senior debt	**2,884**	**2,877**
Private placements	138	132
Bonds issued	2,746	2,745
Sub-ordinated debt	**0**	**0**
Capital	**7,714**	**7,549**
Undistributable capital	98	98
Distributable capital	7,616	7,451
Other liabilities	**48**	**99**

Leverage of Sampo plc was modest at year end by several measures.

- The financial leverage measured as the portion of debt within all liabilities was 29 (32) per cent.
- Sampo's net debt of EUR 1,424 (1,443) million is modest when compared to Sampo's equity holdings and financial assets.
- The gross debt divided by estimated market value of equity holdings, the ratio would be around 15 per cent.

In regards to liquidity, the liquid funds of Sampo plc were EUR 1,199 (1,439) million. At the end of May 2018 when all expected cash flows from dividends and other transactions have been settled the liquidity will normalize to below EUR 100 million which is adequate for normal cash management purposes. Furthermore, a remarkable portion of sub-ordinated loans issued by group-companies (496) and other investment assets (235) can be sold in case liquidity is needed. Short-term liquidity can be considered to be adequate.

All in all, Sampo plc is in a good position to refinance its current debt and even issue more debt. This capacity together with the tradable financial assets, means that Sampo plc is able to generate liquid funds.

Sampo Group has also a buffer for own funds. Because sub-ordinated loans presented in the table Sampo plc Balance Sheet Structure, 31 December 2017 and 31 December 2016 are issued by If P&C, Mandatum Life, Nordea and Topdanmark, they are eliminated from Group's own funds. In case these assets would be sold, in addition to liquidity in Sampo plc, also own funds would be created and Sampo Group Solvency ratio would increase marginally.

When Sampo plc is managing its funding and capital structure and liquidity it takes into account that some of its operative companies have other base currencies (SEK, DKK) than EUR and all its operative business areas are exposed to low interest rates. These risks may affect Sampo's decisions on issuance of debt instruments and composition of liquidity portfolio.

This is why part of Sampo plc's debt instruments are issued in SEK and interest rate duration is maintained relatively short. However, the market view is also affecting decisions and for instance at the moment SEK-dividends paid by If P&C are still in SEK and SEK debt is converted into EUR using cross-currency swaps, due to tactical market-view reasons.

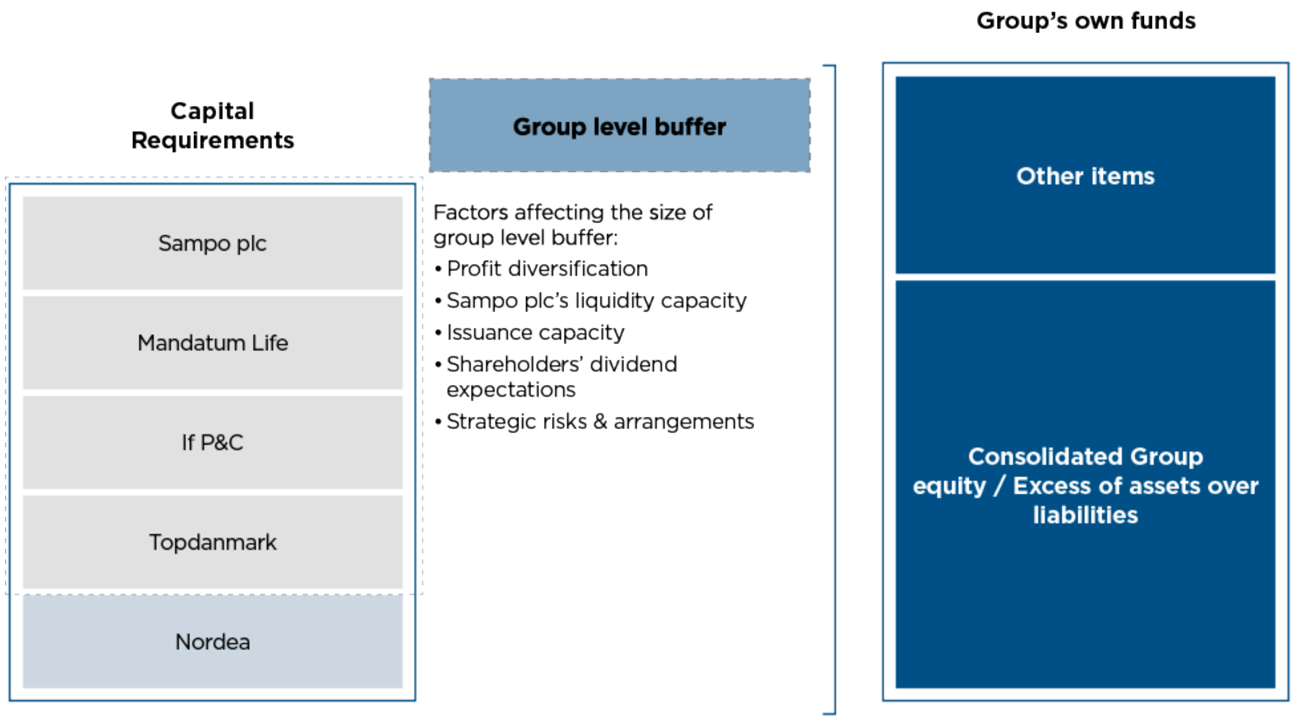
Sampo Group Capitalization

Capitalization at Group Level

The sub-group level balance of profits, risks and capital is the primary focus of Sampo Group. When all sub-groups are well capitalized as a result the Group should be adequately capitalized as well.

However, at Sampo Group level there are more factors affecting capitalization than at the sub-group level. These factors are illustrated in the figure Sampo Group's Capitalization Framework.

Sampo Group's Capitalization Framework



Group's capital requirement is dependent mainly on the capital requirements of the business areas. The parent company's contribution to Group capital need is minor most of the time, because Sampo plc does not have any business activities of its own other than the management of its capital structure and liquidity portfolio.

Diversification benefit exists at two levels, within the companies and between the companies. The former is included in the companies' SCRs; for the latter there are different estimation methods as described later in the document.

Conceptually, **Group's own funds** is the difference between the market value of assets and liabilities plus the subordinated liabilities. This difference has accrued during the lifetime of the Group and it includes the following main components:

- Accrued profits that have not been paid as dividends over the years.
- Market value adjustment to the book values of assets and liabilities.
- Issued capital and subordinated liabilities meeting Solvency II requirements.

Due to the use of the same sectoral rules in both Solvency II and financial conglomerate calculations, there is no material difference between Sampo's Solvency II or FICO own funds.

At the Group level, the capital requirement and own funds are both exposed to foreign currency translation risk. Translation risk may realize when the actual capital and the capital needs of If P&C and Topdanmark are converted from their reporting currencies to euros. When the reporting currencies of If P&C and Topdanmark depreciate, the actual amount of Group's capital in euros decreases and the capital requirements of If P&C and Topdanmark will be lower in euro terms. Translation currency risk is monitored internally and its effect on Sampo Group's solvency on a going concern basis is analyzed regularly. However, internally no capital need is set for translation risk, because it realizes only when a sub-group is divested.

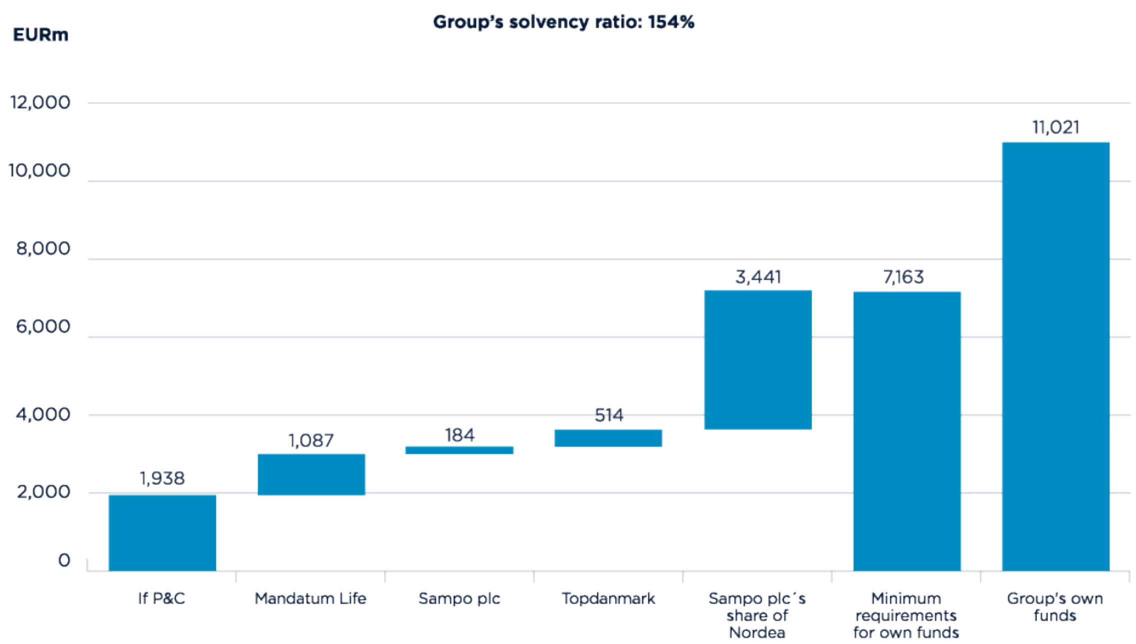
Group level buffer is the difference between the amount of Group's own funds and the Group capital requirement. In addition to the sub-group level factors – expected profits and their volatility, business growth prospects and ability to issue Solvency II compliant capital instruments – there are Group level factors that are also relevant when considering the size of the Group level buffer. The most material Group level factors affecting the size of buffer are (i) correlation of sub-groups' reported profits; (ii) parent company's capacity to generate liquidity; (iii) probability of strategic risks and arrangements within industry; and (iv) shareholders dividend expectations.

The principles of Sampo Group capitalization and the calculation methods are described in Appendix 4 in detail. Topdanmark treatment in Solvency II and FICO changed in 2017 and hence the 2016 figures are not comparable.

Group's Own Funds and Solvency According to Conglomerate Rules (unaudited)

Sampo Group's FICO solvency, calculated according to the Act on the Supervision of Financial and Insurance Conglomerates (2004/699), is presented in the figure Sampo Group's FICO solvency, 31 December 2017. The Group solvency ratio remained at the same level as year before and was 154 per cent. Topdanmark was consolidated to the Group's SCR and own funds in Q3/2017. Prior to that, the deduction and aggregation method was applied to the Topdanmark holding. This meant that the part corresponding to Sampo's share of Topdanmark's disclosed SCR was included in Sampo's SCR and own funds.

Sampo Group's FICO Solvency
31 December 2017 (unaudited)



Group's own funds consist of Group consolidated equity and sectoral items of financial institutions and insurance companies, minus intangible assets, foreseeable dividends and other adjustments. Group consolidated equity including non-controlling interest, EUR 13,508 million as of 31.12.2017, accounts for most of the own funds and is considered as Tier 1 capital for solvency purposes. Sectoral items, most of which come from Nordea's additional Tier 1 and Tier 2 capital and from the valuation adjustments of If P&C, Mandatum Life and Topdanmark, accounted for EUR 2,517 million (EUR 2,254 million). The deductions in total were EUR 5,004 million (EUR 3,251 million).

The Group level capital requirement is sum of the parts presented in the above figure and no diversification benefit between business areas is taken into account. As of 31.12.2017 the total minimum requirements for own funds were EUR 7,163 million (EUR 7,088 million). Group solvency (Group's own funds – minimum requirements for own funds) was EUR 3,858 million (EUR 3,849 million).