

SAMPO  GROUP

RISK MANAGEMENT
2016

Risk Management

Sampo Group's Structure and Business Model	3
Sampo Group's Risks and Core Risk Management Activities	5
Group's Risks	5
Core Risk Management Activities	7
Profitability, Risks and Capital	9
Capitalization at the Sub-Group Level	10
Capitalization at Group Level	16
Underwriting Risks	23
Non-Life Insurance Underwriting Risks	23
Life Insurance Underwriting Risks	29
Investment Portfolio Market Risks	35
Asset Allocations and Investment Performance	36
Interest Rate and Currency Risks	40
Equity and Spread Risks	42
Counterparty Default Risks	50
ALM Risks	52
Operational Risks	55
If P&C	55
Mandatum Life	56
Appendices	57
Appendix 1: Sampo Group Steering Framework and Risk Management Process	57
Appendix 2: Risk Definitions	65
Appendix 3: Principles of Investment Portfolio Management	75
Appendix 4: Valuation for Solvency Purposes	77

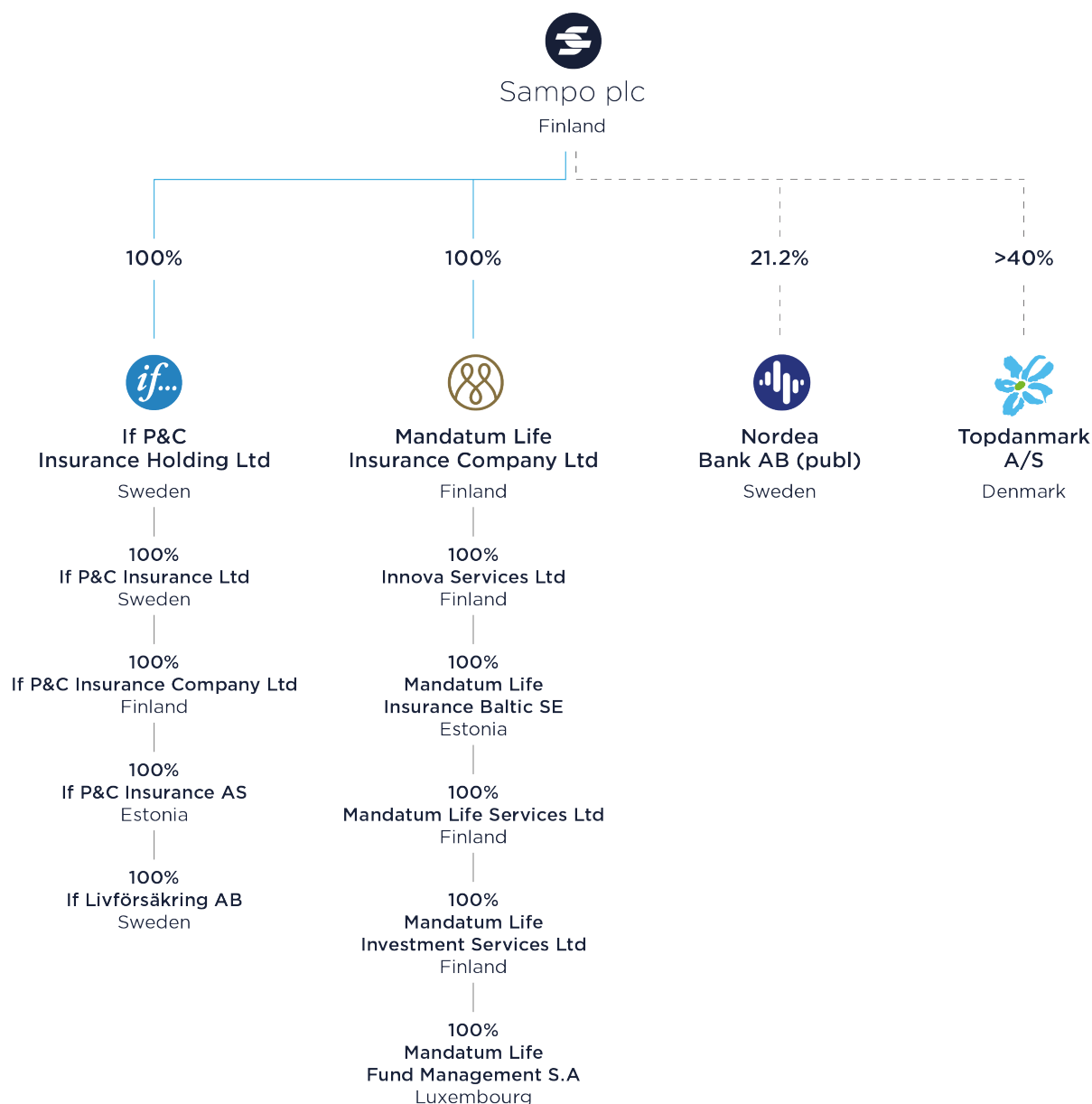
Sampo Group's Structure and Business Model

Sampo Group ("Group") is engaged in non-life insurance, life insurance and banking.

Non-life insurance and life insurance activities are conducted by the subsidiaries If P&C Insurance Holding Ltd (publ) ("If P&C") and Mandatum Life Insurance Company Ltd ("Mandatum Life") which are wholly owned by the Group's parent company, Sampo plc ("parent company" or "Sampo"), which is a listed holding company and has no insurance or banking

activities of its own. Sampo also has a 41.7 percent holding in a Danish insurance company Topdanmark A/S ("Topdanmark"). In addition to the insurance subsidiaries and the associated company, as at 31 December 2016 the Group's parent company held an equity stake of 21.2 per cent in Nordea Bank AB (publ) ("Nordea") through which Sampo Group is engaged in banking business. The legal structure of Sampo Group is shown below.

Sampo Group Legal Structure



The legal sub-groups Mandatum Life and If P&C Insurance Holding Ltd (publ) and the associated companies Nordea and Topdanmark conduct their businesses independently from each other. The independent sub-groups have their own infrastructures and management as well as operative processes in place. In instances where the subsidiaries and associated companies cooperate in some business areas, cooperation is conducted similarly as with any third-party.

Being associated companies, Nordea and Topdanmark are not controlled by Sampo and their risk management is not covered in Sampo Group's Annual Report. The associated companies do however have a material effect on the Group's profits, risks and capital needs. Hence, Nordea and Topdanmark are carefully analysed by Sampo as separate businesses and as components of Sampo's portfolio of Nordic financial companies.

Sampo Group's legal structure and business model are both straightforward and simple. In addition there are only a limited amount of intragroup exposures, of which the most material are as follows: (i) Sampo's holdings of hybrid loans of If P&C and Mandatum Life (ii) internal dividends and (iii) service charges. Service charges are related to intragroup outsourcing agreements. If P&C and Mandatum have outsourced part of their investment management processes to Sampo. Sampo has outsourced its IT platform services to If P&C and its financial accounting to Mandatum Life.

As a Nordic insurance group, If P&C underwrites policies that cover various risks for both individuals and corporations over a geographically diverse area. If P&C underwrites risks in the Nordic and Baltic countries. It also underwrites policies for its Nordic clients' activities outside of the Nordic countries. In addition to geographical diversification, the underwriting business itself is well-diversified over lines of business and clients. All in all diversification is a major value driver of If P&C.

Mandatum Life operates in Finland and in the Baltic countries and offers savings and pension policies with life risk features as well as policies covering mortality, morbidity and disability risks. The focus for many years now has been on unit-linked products.

Underwriting activities are arranged intentionally in such a way that there is virtually no overlap between the subsidiaries' underwriting risks except with regards to Finnish longevity risk and hence only limited group-wide coordination is needed in relation to underwriting activities and their respective risks. Subsidiaries also take care of operative actuarial activities; Sampo does not have its own actuarial function.

For both subsidiaries, the insurance liabilities and the company specific risk appetite are the starting points for their investment activities. However, unlike underwriting activities, the subsidiaries' investment activities are coordinated closely at group level as follows:

- Their investment portfolios' risk profiles are designed and decided separately from each other, but their risk profiles are coordinated to proactively prevent potential concentrations.
- The persons responsible for managing the subsidiaries' investments report directly to Sampo Group's Chief Investment Officer which ensures day-to-day coordination.
- IT systems in investment activities are common throughout the Group, facilitating consistent analysis and reporting of risks both at the company and group level.
- The same basic principles are primarily followed in the investment activities of both subsidiaries, although the risk level of If P&C's investment portfolio is significantly lower than the risk level of Mandatum Life's investment portfolio due to different features of their insurance liabilities.

Sampo as a holding company manages its group and associated companies independently of each other. The major management tools include the work of the companies' Boards of Directors and the guidance given to subsidiaries in terms of group-wide principles, targets and capitalization.

As dividends are the parent company's major source of income, Sampo's primary target for every sub-group is to maintain a healthy balance between profits, risks and capital, in order to facilitate a steady stream of dividend payments in the long run. The secondary target is ensuring stable profitability over its business portfolio. Hence the correlation of reported profits is monitored closely in addition to potential risk concentrations. Thirdly, as a general rule Sampo prefers to have low leverage and adequate liquidity buffers to be able to generate liquidity as needed. The size of assessed diversification benefit of the Group companies' profits is reflected in Sampo's decisions on own capital structure and liquidity position.

Further information on Sampo Group's steering framework and risk management process can be found in [Appendix 1 \(Sampo Group Steering Framework and Risk Management Process\)](#).

Sampo has a diversified shareholder base and the [major shareholders](#) have owned their holdings for many years. Sampo Group's main supervisor is the Finnish Financial Supervisory Authority. Due to Sampo Group's activities in Nordics and Baltics other Nordic supervisors have supervisory responsibilities as well. Sampo Group's auditor is EY.

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.

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.

External Drivers and Strategic Risks

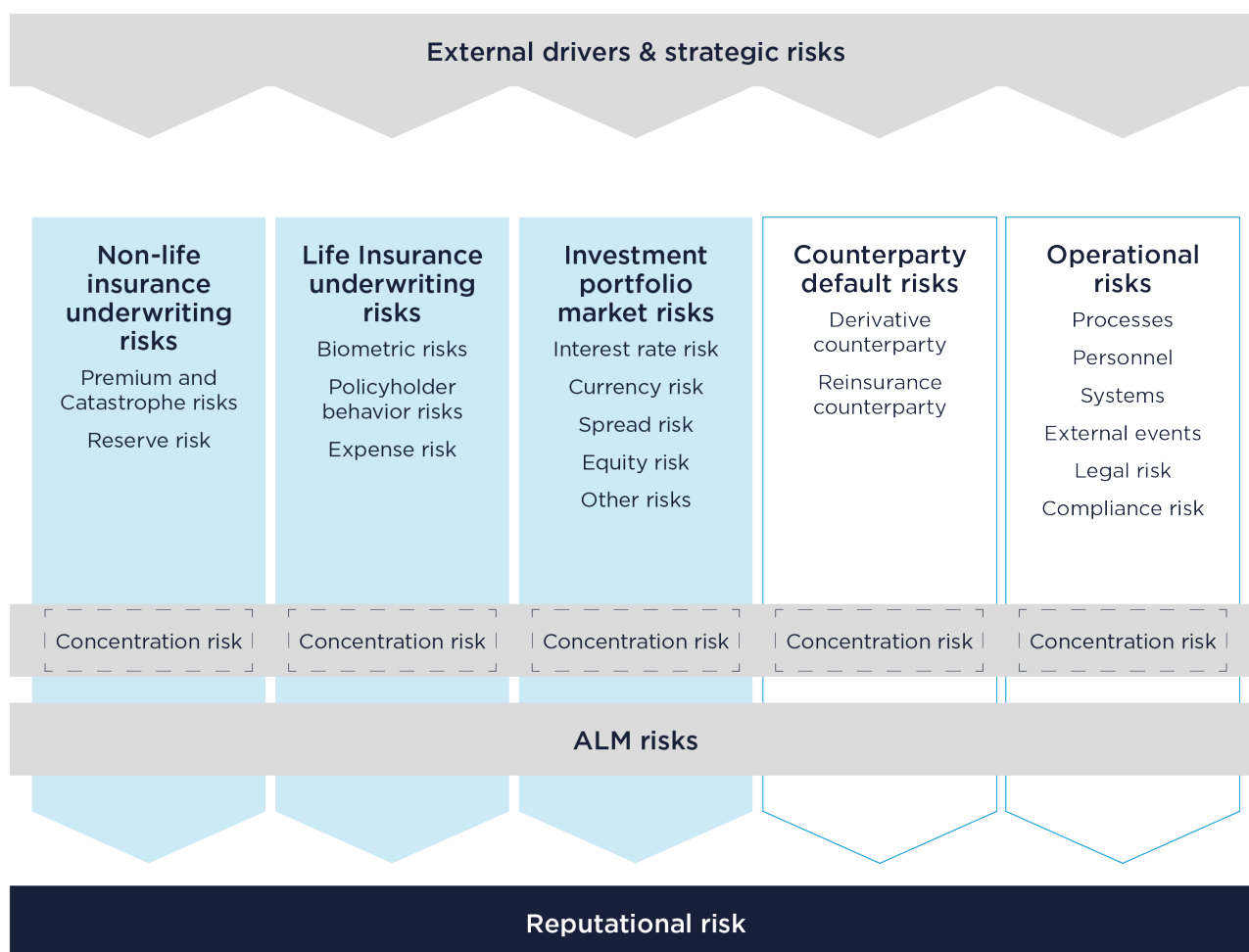
Strategic risk is the risk of losses due to changes in the competitive environment or lack of internal operational flexibility. Unexpected changes in the general business environment can cause larger than expected fluctuations in the financial results and in the long run these can endanger the existence of Sampo Group's business models. External drivers behind such changes are varied, and include for instance general economic development, development of the institutional environment and technological innovations. As a result of these external drivers, business models of the industry can change, new competitors may appear and customer demand and behaviour can change.

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 competitive advantage. The maintenance of internal operational flexibility, in order to be able to adjust the

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 Sampo Group's Corporate Governance system and in how Sampo deals with core stakeholders (i.e. customers, personnel, investors, other co-operation partners, tax authorities and supervisory authorities) and other parties, who may have an interest in Sampo's business.

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 skilful 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.

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 of separate investments are carefully analyzed.
- 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.

Profitability, Risks and Capital

Sampo Group operates under a holding company structure and the parent company does not have any business activities of its own. Sampo Group's business activities are conducted in four separately managed independent business areas, with each business area managing their own risks and reserving sufficient capital to cover their risks.

This structure implies that the parent company is structurally subordinated. Hence, it is dependent on business areas' dividends that can be paid only after business areas have met their own obligations. Thus, the parent company prefers to maintain in its business areas a balance between profits, risks and capital which supports business areas' ability to pay stable dividends after servicing their own obligations.

The structure also implies that **Sampo plc's primary focus is on the capitalization at the sub-group level** and when the sub-groups are well-capitalized, the Group is by definition well-capitalized. The latter may not be true if the sub-groups are cross-capitalizing each other, or the parent company is financially weak (highly leveraged and has inadequate liquidity buffers) or profits of the sub-groups are strongly and positively correlated. In Sampo Group none of these three claims are true.

Hence, from Sampo Group's perspective, the main **objectives** are:

- Independent business areas generate a stable and growing stream of profits and have adequate solvency to ensure the continuity of normal business activities.
- The portfolio of separate business areas is stable. From the Group's perspective, a weak correlation of business areas' profits increasing the benefits of diversification on a portfolio level is preferred.
- The Group's parent company is able to provide liquidity for the strategic arrangements and capital injections, if needed. Hence, the parent company

prefers to have a relatively low leverage and adequate liquidity buffers to ensure its ability to generate liquidity.

Over the years Sampo Group has disclosed its financial information by segments and relevant risk and solvency reporting by insurance sub-groups. Associated companies have disclosed their respective reports independently. Sampo Group has disclosed its group solvency (FICO solvency) according to the Act on the Supervision of Financial and Insurance Conglomerates (699/2004), i.e. conglomerate rules.

Since Solvency II ("SII") entered into force on 1 January 2016, group solvency calculated by Solvency II rules must be disclosed as well. Differences between these methods will be described later in the chapter Capitalization at Group Level. In Solvency II Sampo plc is defined as the ultimate parent of the Solvency II group and thus the operative insurance companies each report separate figures to their local supervisors while If P&C group Solvency II figures are not required to be disclosed separately, but as part of Sampo Group SII figures.

However, in this Risk Management Disclosure, If P&C's and Mandatum Life's risk figures are disclosed first, as they are managed separately within Sampo Group. After these sub-group level figures, the figures on conglomerate solvency reporting at Sampo Group Level are disclosed. Because conglomerate reporting does not take into account any diversification benefit between the business areas the risk management disclosure also includes Sampo Group's internal analysis of diversifications between business areas, as well as an analysis of the leverage and liquidity of the parent company.

In addition to the disclosures described above, which are in line with management structure of the Group, Sampo Group's solvency based on Solvency II rules is disclosed as well.

Capitalization at the Sub-Group Level

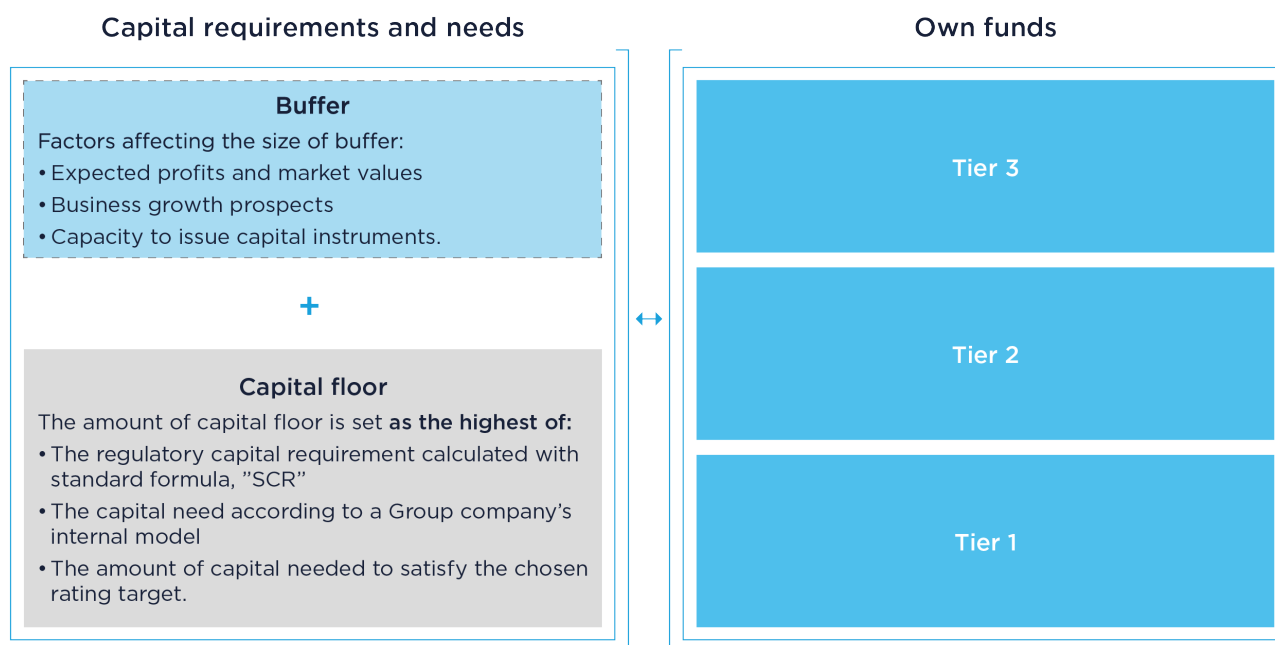
As noted earlier, in Sampo Group the first priority is to maintain **a balance between profits, risks and capital** in each of the separate business areas.

Before disclosing regulatory solvency figures, Sampo Group's principles of capital management is discussed at conceptual level. In a nutshell a balance between profits, risks and capital means that the actual amount of capital – or Own Funds ("OF") in Solvency II

terminology - is maintained over risk based capital need with a certain buffer; the size of this buffer is dependent on many things but mainly on expected profitability.

The figure Sampo Group Companies' Capitalization Framework illustrates Sampo's approach to sub-group and company-level capitalization.

Sampo Group Companies' Capitalization Framework



The Solvency Capital Requirement ("SCR") sets the minimum level of capital at which a company is able to conduct its business without regulatory intervention. Regardless of whether the regulatory capital requirement is calculated using the internal model or the standard formula ("SF"), it reflects a 99.5 per cent confidence level, i.e. the same probability of default as a Triple-B rating from major rating agencies. If the company's clients and counterparties prefer a higher than Triple-B creditworthiness from their insurance company, the level of capital must always be higher than the SCR, to ensure the company's ability to serve its client base.

To serve its current clients, If P&C is maintaining a Single-A rating which effectively implies that If P&C's capital floor – the level to which it compares its actual

capital – is higher than the SCR. Mandatum Life considers the SCR to be an adequate capital floor.

There is a need to have a certain **buffer** between the actual amount of capital and the capital floor defined by the company, because risk exposures and profits evolve continuously over time and capital can sometimes erode rapidly due to stressed situations. An adequate buffer gives time for the company to adjust its risks and capital in times of stress and to maintain the balance between risks and capital. An adequate buffer also gives confidence to supervisors and counterparties (this being the other motivation for the buffer).

In Sampo Group the management steers the balance between SCR/rating agency capital target and OF

through their decisions on risk profiles, dividend payments, capital instrument issuances and technical provisions. In the long run a sound profitability and satisfied clients are the most important factors in maintaining an adequate capitalization.

The following factors are the most material when the size of buffer is considered in Sampo Group companies:

- The higher **the level of expected profits** and the lower **the volatility of profits and market value of balance sheet**, the less is the volatility of own funds and thus the smaller is the buffer.
- If **business is growing**, the buffer is larger than in the case of a run-off -business. For instance in Mandatum Life, capital consuming with profit business has already been in a virtual run-off mode for years.
- More ability and **capacity to issue SII compliant capital instruments** means that a lower buffer is needed.

When the balance between profits, risks and capital is met, the following three goals of Sampo Group are simultaneously obtainable:

- The business activities can be conducted without supervisory intervention.
- The business activities can be conducted with all targeted client bases and the company has access to financial and debt issuance markets at terms and conditions implied by the company's creditworthiness.
- The targeted dividends can be paid to shareholders in the long run without endangering the balance between risk and capital.

On a sub-group and company level, a target can also be set for the **capital structure**. In general, Sampo Group is in favor of strong capital structures and as a result Sampo Group companies currently have, according to SII rules, room for new hybrid capital and subordinated debt instruments in their balance sheets.

Solvency as of 31 December 2016:

If P&C calculates its capital need by several measures.

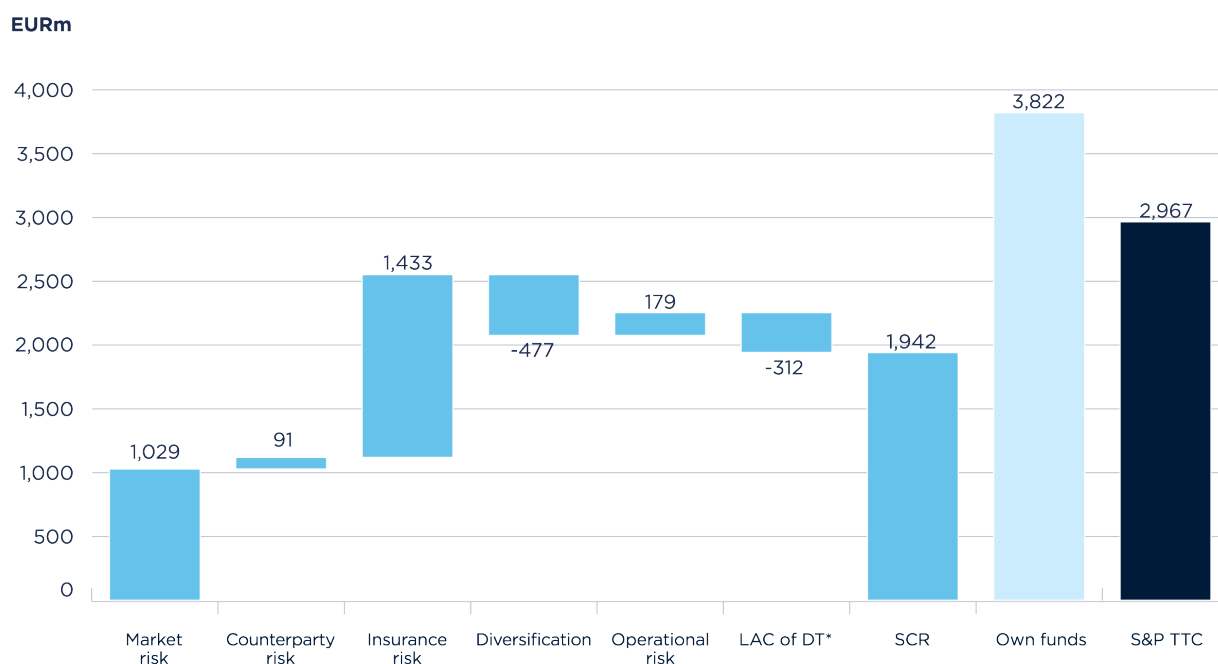
- The Swedish company If P&C Insurance Ltd (publ), covering the business in Sweden, Norway and Denmark, is using a Partial Internal Model approved by Swedish supervisors for its solo SCR calculations. In its Partial Internal Model an internal model is used for underwriting risk while the standard formula is used for other risks. The other insurance companies within If P&C are using the SF for their solo calculations.
- The economic capital, based on the internal model for insurance and market risks, covers If P&C as a group. Economic capital is used to estimate the capital need to cover separate risks and is an internal basis for capital allocation.
- For If P&C the SCR, corresponding to what would be the regulatory requirement if Solvency II group rules were enforced at the level of the If P&C, and respective OF using the SF, are calculated. The SF results are also inputs to Sampo Group Solvency figures and hence are disclosed later in this report. If P&C applies the full Solvency II standard formula with transitional equity measures for its SCR calculation, but does not apply any undertaking-specific parameters in the underwriting risk modules or apply simplified calculations for any of the risk modules of the standard formula.
- The main differences between the SF SCR and the internal model capital need are related to underwriting risk and market risk. In regards to underwriting risk the standard formula does not take into account the geographical diversification between countries and hence its estimate of underwriting risk capital requirement is higher than the internal estimation. On the other hand, If P&C's internal estimate of market risk is currently higher than the respective figure in the standard formula.

In If P&C, own funds at the end of 2016 were EUR 3,822 million (3,202) while the SF SCR applying transitional measures on equity holdings was EUR 1,942 million (2,073). Hence, the solvency ratio was 197 per cent (154) and the buffer was EUR 1,880 million (1,129).

In the figure If P&C's Solvency, 31 December 2016, SCR is divided into risk contributions. The diversification benefit between risks is also presented in the figure.

If P&C's Solvency

31 December 2016



* Loss absorbing capacity of deferred taxes

Because capital need based on rating agency criteria – Total Target Capital (“TTC”) for Single-A – is higher than capital need based on SCR, If P&C’s internally set capital floor is based on TTC being EUR 2,967 million (3,058) as of 31.12.2016. Therefore the buffer between OF and the SCR as well as the regulatory solvency ratio (=OF/SCR) are adequate.

If P&C’s structure of OF as presented in table If P&C’s Own Funds, 31 December 2016 is strong. Tier 1 items

are covering 83 per cent of OF and the role of Tier 3 items is immaterial. Norwegian Natural Perils Fund (“NNPF”) is a material part of Tier 2 untaxed reserves covering 33 per cent. Over the latest years If P&C has paid over 80 per cent of its net profit as dividends to Sampo plc. As a result the retained earnings – part of the reconciliation reserve – have consistently been a source of Tier 1 growth.

If P&C's Own Funds

31 December 2016

If P&C		EURm
Tier 1	Total	3,172
	Ordinary share capital	285
	Reconciliation reserve	2,794
	Subordinated liabilities	93
Tier 2	Total	649
	Subordinated liabilities	327
	Untaxed reserves	322
Tier 3	Total	1
	Deferred tax assets	1
Eligible own funds, consolidation method		3,822

EUR 420 million (200) i.e. 11.0 per cent (6.2) of OF consisted of subordinated debt at the end of 2016. In December 2016 the parent company of If P&C – If P&C Holding Ltd (publ) – issued two SEK denominated, Solvency II Compliant Tier 2 instruments. In both instruments the final maturity is 30 years and first call

date is in 5 years. If P&C still has capacity to issue Tier 1 and Tier 2 instruments. As of 31.12.2016 Sampo plc holds If P&C subordinated liabilities with a nominal value of EUR 189 million according to IFRS, as presented in the table Solvency II Compliant Subordinated Liabilities of If P&C, 31 December 2016.

Solvency II Compliant Subordinated Liabilities of If P&C

31 December 2016

Issuer	Instrument	Nominal amount	Carrying amount in EUR	First Call	Tiering	In Sampo's portfolio
If P&C Insurance Company Ltd (Finland)	PerpNC5.5	EUR 90,000,000	89,866,278	11/26/2018	Tier 1	90,000,000
If P&C Insurance Ltd (publ) (Sweden)	30NC10	EUR 110,000,000	109,378,306	12/8/2021	Tier 2	98,935,000
If P&C Insurance Holding Ltd (Sweden)	30NC5	SEK 500,000,000	51,971,495	12/1/2021	Tier 2	0
If P&C Insurance Holding Ltd (Sweden)	30NC5	SEK 1,500,000,000	155,917,824	12/1/2021	Tier 2	0
			407,133,903			

As a summary, the solvency of If P&C is adequate and the capital structure is strong. High and stable profitability and capacity to issue subordinated debt if needed puts If P&C in a strong position to generate capital and to maintain a capital level needed for operations in the future as well.

Mandatum Life applies the Solvency II standard formula with transitional measures on equity to the calculation of SCR. OF is also affected by transitional measures, because Mandatum Life applies transitional measures on its technical provisions in regards to its original pension policies with 3.5 per cent and 4.5 per cent guarantees. Also, a volatility adjustment is

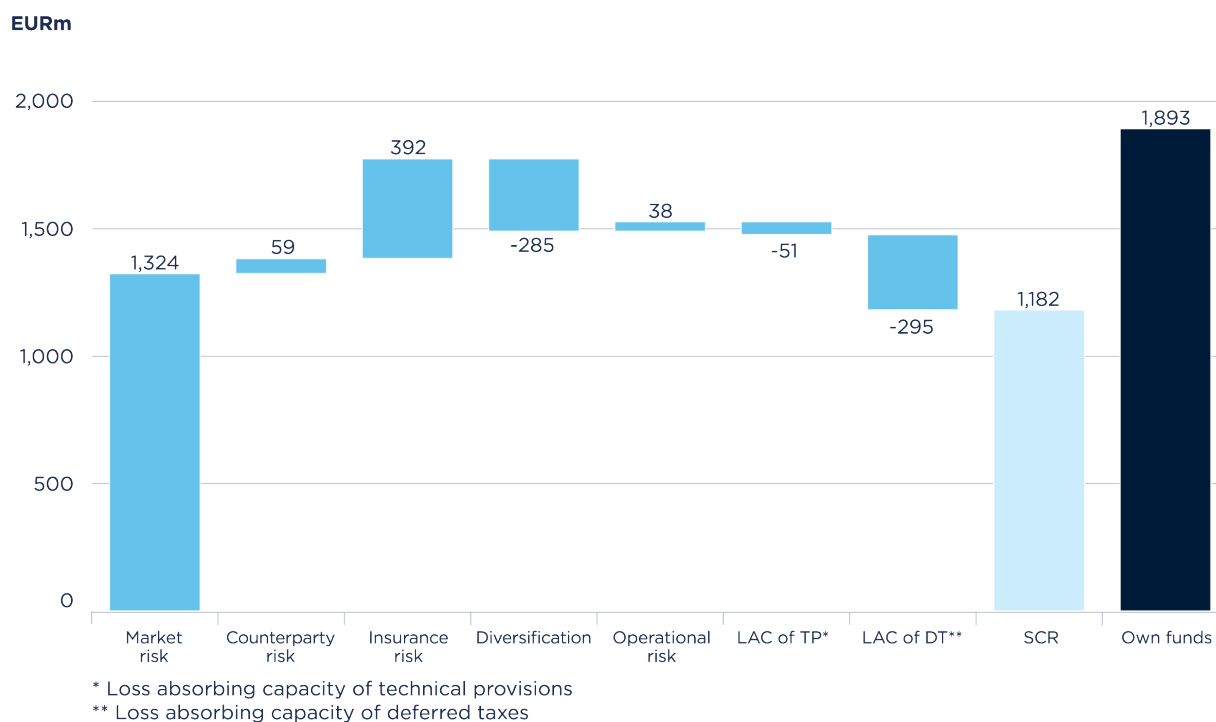
applied when technical provisions are calculated. The size of SII liabilities with transitional measures of EUR 10,644 million is less than the respective figure without transitional measures (EUR 11,208 million). Hence the transitional measures increase the amount of OF. Mandatum Life does not apply any undertaking-specific parameters in the underwriting risk modules or apply simplified calculations for any of the risk modules of the standard formula.

The SII OF of Mandatum Life was EUR 1,893 million while the SCR was EUR 1,182 million. The solvency ratio (OF/SCR) was 160 per cent and the buffer was EUR 711 million. OF without transitional measures on

technical provisions would be EUR 1,441 million, and the SCR without transitional measures on equity risk would be EUR 1,409 million.

In the figure Mandatum Life's Solvency, 31 December 2016 SCR is divided into risk contributions. The diversification benefit between risks is also presented in the figure.

Mandatum Life's Solvency 31 December 2016



The solvency position without the transitional measures is expected to develop favorably during the transitional period. The amount of with profit liabilities is decreasing (see figure Forecast of With Profit Liabilities, 31 December 2016–31 December 2031 within chapter [Underwriting Risks](#)) and liabilities with the highest guarantees are expected to fall most, from EUR 2,861 million to around EUR 1,000 million during the transitional period. Hence, the most capital consuming with profit liabilities will decrease during the period and their duration will shorten as well. This creates a decreasing trend to the SCR and simultaneously a positive trend to own funds without transitional measures. Internally Mandatum Life is

forecasting solvency ratios with and without the transitional measures; both forecasts affect the company's business decisions.

Mandatum Life's structure of OF as presented in the table Mandatum Life's Own Funds, 31 December 2016 is good. In regards to the capital structure, EUR 100 million (i.e. 5.3 per cent of OF) consisted of subordinated debt at the end of 2016. This subordinated debt is classified as a restricted Tier 1 item due to Grandfathering principles. Transitional measures on technical provisions contribute EUR 451.7 million to OF at the end of 2016.

Mandatum Life's Own Funds

31 December 2016

Mandatum Life		EURm
Tier 1	Total	1,893
	Ordinary share capital	181
	Reconciliation reserve	1,613
	Subordinated liabilities	100
Tier 2	Total	0
	Subordinated liabilities	0
	Untaxed reserves	0
Tier 3	Total	0
	Deferred tax assets	0
Eligible own funds		1,893

In summary, the solvency and the capital structure of Mandatum Life with transitional measures are adequate. During the transitional period on technical provisions the liabilities with high guarantees will decrease remarkably which will also support future capital level needs.

In regards to **Nordea**, the Swedish requirements for banks' capital include components which are country-specific and thus the total requirement is higher than in many other countries. The Swedish FSA has communicated the capital requirement for Nordea. Nordea's capital policy aims to maintain a management buffer of 50-150 basis points above the capital requirement. By the end of third quarter 2016, the communicated Common Equity Tier 1 ("CET1") ratio requirement for Nordea was 17.3 per cent.

The CET1 ratio of Nordea increased to 18.4 per cent (16.5) in 2016. The CET1 capital amounted to EUR 24.5 billion and its own funds were EUR 32.9 billion. Nordea's capital requirement based on the transitional rules was EUR 17.3 billion; without the transitional rules it was EUR 10.7 billion. Sampo consolidates its

share of all Nordea's own funds items and minimum capital requirement to Group solvency under both Solvency II and conglomerate rules. From the view point of Sampo Group solvency Nordea is strongly capitalized and its contribution to Group's own funds and capital requirement is significant.

Topdanmark's group solvency is calculated according to Solvency II rules. Topdanmark uses a partial internal model to calculate the non-life insurance risk and the volatility-adjustment when calculating technical provisions, which are both approved by the Danish FSA.

Sampo applies the deduction and aggregation method as defined in Solvency II to its holding in Topdanmark based on the latest publicly disclosed figures. This means that the book value of the holding is fully deducted from the own funds after which Sampo's share of Topdanmark's own funds is added up to the level of its share of Topdanmark's SCR. As a result, Group's own funds are almost neutral to changes in Topdanmark's solvency position or profitability.

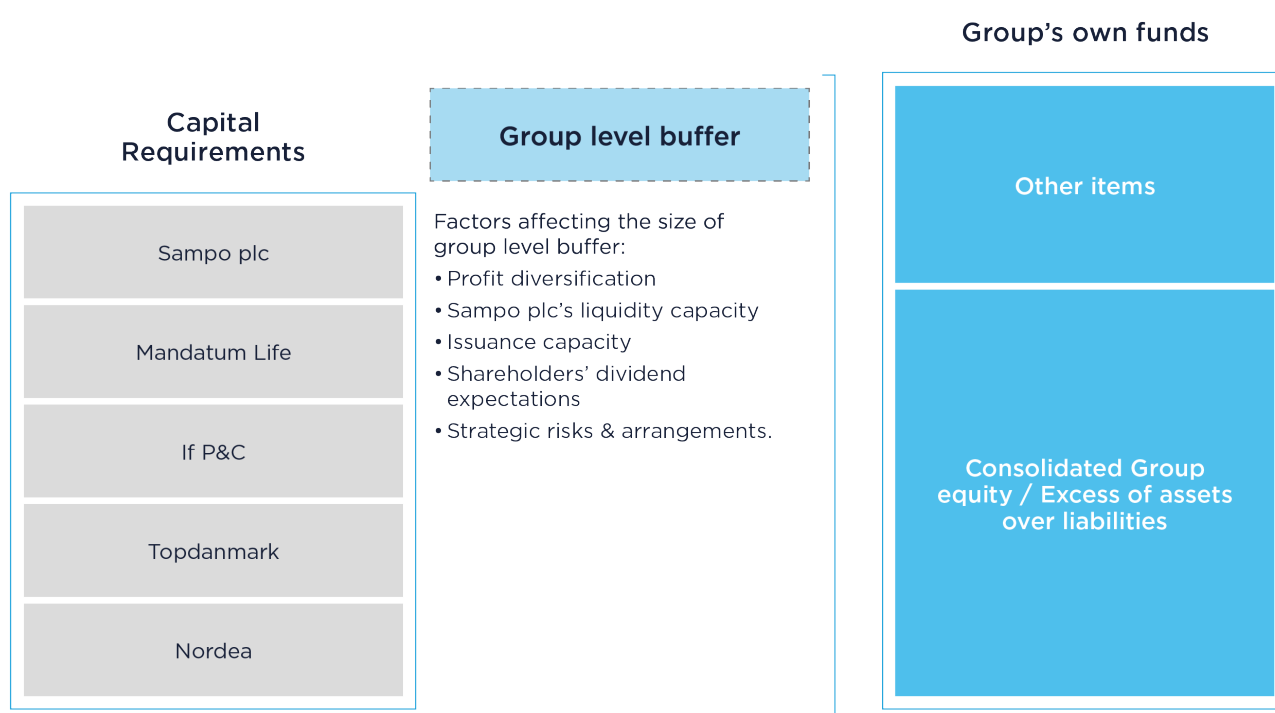
Capitalization at Group Level

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. Based on the figure the basic components of Group capitalization will be introduced before describing different regulatory rules to calculate solvency measures and disclosing their results as of 31.12.2016. The adequacy of solvency is assessed at the end of this section.

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, 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.

Regulatory Solvency Calculation Methods and Group Solvency Position

Sampo Group's capital requirement and amount of group's own funds are calculated either by the conglomerate rules or the Solvency II directive as follows:

Sampo Group's capital requirement **according to the conglomerate rules**, is called the **Group's total minimum requirement for own funds** and it is the sum of the separate sub-group's requirements (sectoral rules) and the parent company's requirement based on the Capital Requirements Directive/Capital Requirements Regulation ("CRD IV/CRR"). The conglomerate's capital requirement does not take into account any diversification between the business areas. Hence it is a quite conservative measure of capital requirement and easy to interpret.

The starting point for the calculation of Group's own funds is Group's consolidated equity. Sectoral items, which include among others the subordinated liabilities held by the external investors, are added to

the Group's consolidated equity. In addition, intangible assets and foreseeable dividends as well as other deductible items are subtracted from the Group's own funds.

Sampo Group's capital requirement by **Solvency II rules** is called **Group SCR**. It is calculated in two phases:

- i. The diversified capital requirement is calculated for the consolidated group including the parent company Sampo plc, If P&C and Mandatum Life. There is also capital requirement for the translation risk related to SEK denominated equity of If P&C and DKK denominated equity of Topdanmark.
- ii. Sampo plc's share of Nordea's, Topdanmark's and Mandatum Life's other sectors' capital requirements are added to the consolidated group's capital requirement.

The Group SCR calculated by Solvency II rules takes into account diversification only within the consolidated group thus excluding the diversification benefit related to the holding of Nordea.

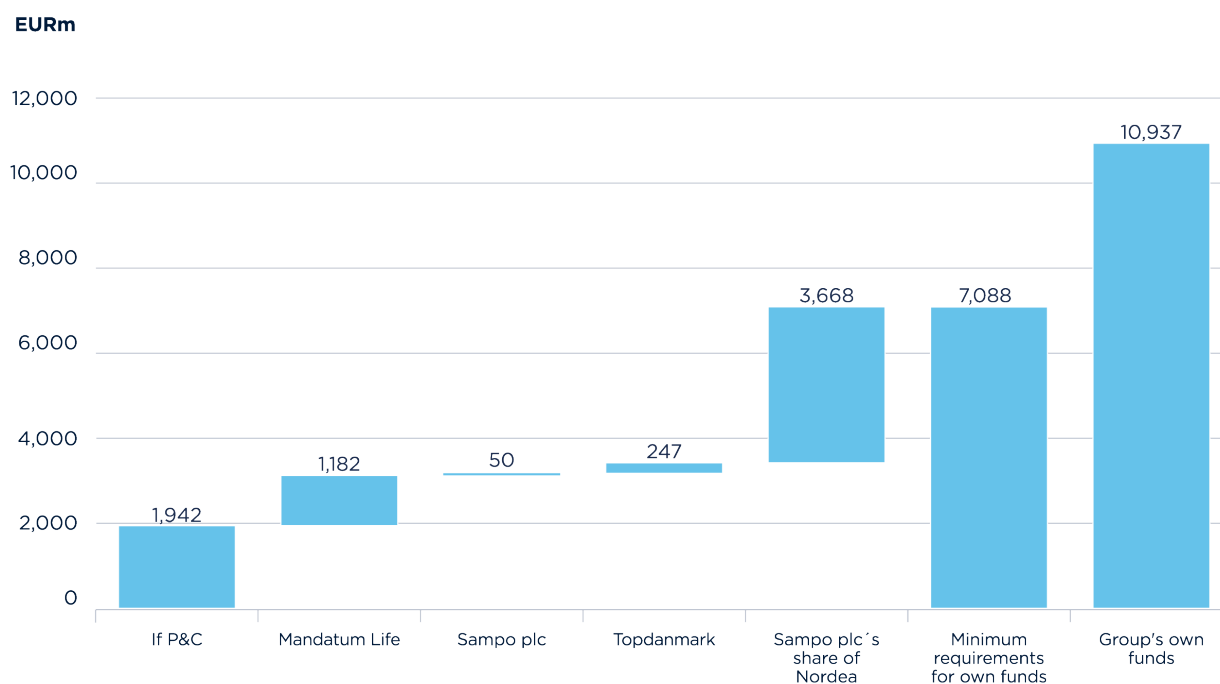
The **Group's own funds** under Solvency II rules is the excess of assets over liabilities (including any subordinated liabilities which may be called up in order to absorb losses). Assets and liabilities are valued at market value and all intra-group transactions are eliminated. The excess of assets over liabilities is classified into tiers 1-3. The tiers reflect the degree of loss absorbency of own funds in the event of a winding up. Adjustments are made if all own funds are not available or eligible at the Group level. In addition, associated companies' additional tier 1 and tier 2 capital instruments are included in own funds. Group's own funds and SCR are calculated by combination of consolidation and deduction and aggregation methods.

Under normal circumstances Group's OF by Solvency II and conglomerate rules are close to each other due to the similar treatment of sectoral items.

Group's Own Funds and Solvency Position According to Conglomerate Rules 31.12.2016

Sampo Group's FICO solvency is presented in the figure Sampo Group's FICO solvency, 31 December 2016. The Group solvency ratio increased from 145 per cent to 154 per cent in 2016.

Sampo Group's FICO Solvency 31 December 2016



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, EUR 11,934 million as of 31.12.2016, 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 and Mandatum Life, accounted for EUR 2,254 million (2,254). The deductions in total were EUR 3,251 million (3,371).

As earlier described, 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 31.12.2016 the total

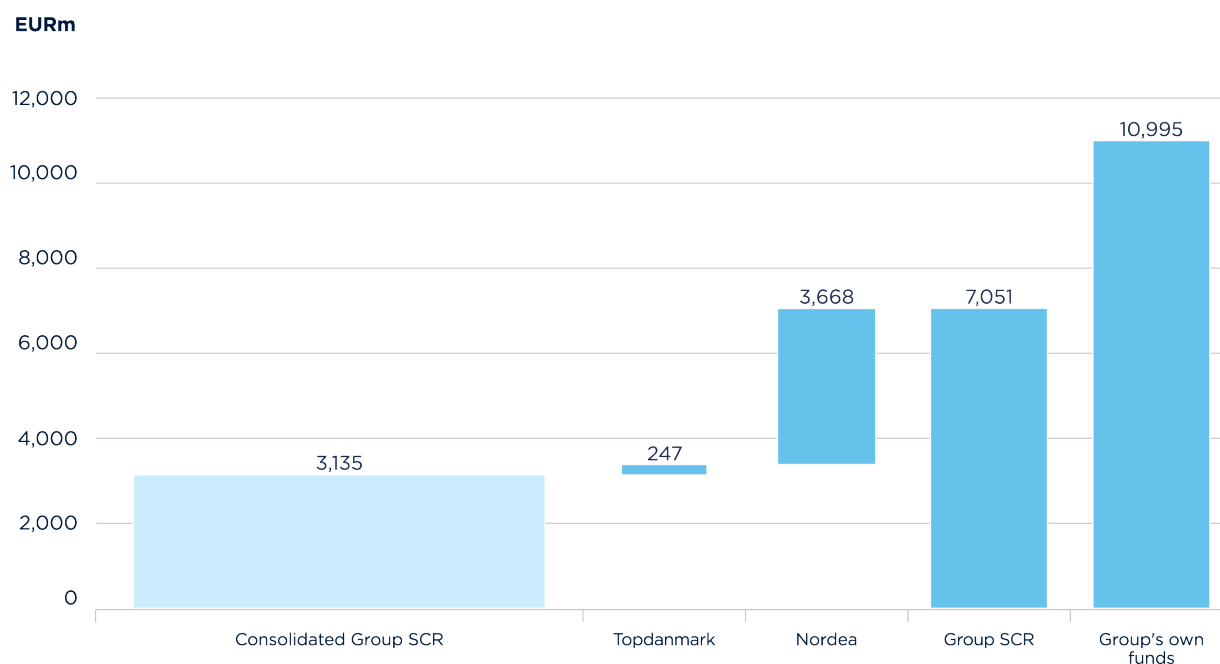
minimum requirements for own funds were EUR 7,088 million (7,114). Group solvency (Group's own funds – minimum requirements for own funds) were EUR 3,849 million (3,180).

Group's Own Funds and Solvency Position According to Solvency II 31.12.2016

Sampo Group's own funds and SCR are presented in the figure Sampo Group Solvency by Solvency II rules, 31 December 2016. Sampo Group's Ratio of Eligible own funds to group SCR at the end of 2016 was 155 per cent (145).

Sampo Group Solvency by Solvency II Rules

31 December 2016



The following table Sampo Group's Own Funds, 31 December 2016 and 31 December 2015 presents Sampo Group's Own Funds by tiers.

Sampo Group's Own Funds

31 December 2016 and 31 December 2015

EURm	2016	2015
Tier 1 total	10,721	10,521
Ordinary share capital	98	98
Reconciliation reserve	10,520	10,404
Net effect of Nordea & Topdanmark	103	18
Tier 2 (Subordinated liabilities)	230	18
Tier 3 (Deferred tax assets)	4	18
Total eligible own funds	10,955	10,557

Group's own funds consists of ordinary share capital, reconciliation reserve as well as subordinated liabilities and net deferred tax assets ("DTA"), which are eligible at the Group level. As of 31.12.2016 the Group's own funds were EUR 10,955 million; in comparison IFRS consolidated group equity as of 31.12.2016 was EUR 11,934 million (Appendix 4 Valuation for Solvency II purposes).

The entire ordinary share capital of EUR 98 million and reconciliation reserve of EUR 10,520 million fully meet with the requirements for inclusion in Tier1 unrestricted items. All in all the structure of own funds is very solid, because Tier1 items are 98 per cent of all own funds and the reconciliation reserve is a major contributor.

The reconciliation reserve consists of retained earnings, net income for the financial year and other

reserves deducted by foreseeable dividend and other distributions. In addition it is also adjusted by Solvency II valuation differences and net deferred tax assets. The composition of the reconciliation reserve is

presented in the table Composition of the Reconciliation Reserve, 31 December 2016 and 31 December 2015.

Composition of the Reconciliation Reserve 31 December 2016 and 31 December 2015

EURm	2016	2015
Reserves, retained earnings and net income for the year (before SII adjustments)	11,836	11,312
Foreseeable dividends, distributions and charges	-1,288	-1,204
Net deferred tax assets shown separately in Tier 3	-4	-18
Valuation adjustments, SII	-24	314
Reconciliation reserve	10,520	10,404

Own funds items included in Sampo Group's Tier 2 capital consists of subordinated debt instruments held by external investors being EUR 230 million as of 31.12.2016.

As of 31.12.2016 subordinated debt of EUR 100 million issued by Mandatum Life was completely in Sampo's investment portfolio and almost half of If P&C's subordinated debt of EUR 407 million was held by Sampo plc as well. The details of subordinated debt instruments issued by If P&C are shown in the table Solvency II Compliant Subordinated Liabilities of If P&C, 31 December 2016. Full instrument details are available on Sampo's web-page www.sampo.com/publicdebt.

On 1 December 2016, If P&C issued two tranches of Tier2 subordinated debt altogether SEK 2,000 million (nominal amount).

Tier 3 own funds include net deferred tax assets (i.e. those deferred tax asset items which cannot be netted against available deferred tax liabilities, "DTL") from the Solvency II balance sheet.

The Group's own funds have increased by EUR 398 million over the reporting period. The change is mainly explained by the good result that was not completely paid out as dividends and the issuance of subordinated debt issues. No own funds items were redeemed over the reporting period. There were no restrictions affecting the availability or transferability of own funds at the group level during the period.

Group SCR is calculated in two phases. First the SCR is calculated for the consolidated group including diversification benefit between companies. Then associated companies capital requirements are added to this diversified figure.

Internal Considerations of Adequacy of Solvency

Sampo's regulatory group solvency ratios, 154 per cent (FICO) and 155 per cent (Solvency II), are relatively low compared to many other insurance groups. Conglomerate rules do not take into account any diversification benefits between Group's business areas. Solvency II rules take into account only the diversification within the consolidated group. Therefore, the diversification benefit from associated companies is not taken into account. Because over half of the capital consumption and almost half of the profits come from the associated companies, the lack of diversification benefit has a material effect on reported Solvency ratios.

In order to include the diversification benefit between business areas into Group's capital need estimate, Sampo is using correlations of quarterly reported profits between business areas when assessing the diversification benefit in the context of Conglomerate Rules. With this adjustment the resulting diversified Sampo Group capital requirement would be EUR 5,571 million (5,496) and the Group solvency ratio would be 196 per cent (187).

Diversification Benefit and Group's Internal Capital Adequacy Assessment

31 December 2016

Correlations of Quarterly Reported Profits

Nordea vs. If P&C	0.29
Nordea vs. Mandatum Life	0.14
If P&C vs. Mandatum Life	0.85

Internal Capital Adequacy Assessment

	EURm
Diversification effect	-1,517
Diversified capital need	5,571
Buffer	5,366
Internally adjusted group solvency ratio, %	196%

This internal Solvency Ratio estimate is more in line with reported figures of insurance groups, of which most do not have holdings in financial institutions to the level of Sampo Group's holdings. Based on this internally adjusted group solvency ratio, the Group solvency would be strong.

When Sampo is considering the Group Solvency based on the **adequacy of buffer at Group level** it is assessed that the buffer is more than adequate in light of the facts below.

- **Due to the business entities' adequate capitalization, good profitability and low volatilities, there is no need for extra buffers at Group level.** If P&C and Nordea have strong capitalization and sound profitability. OF of If P&C is maintained above the capital level based on the Single-A rating target. Nordea's amount of capital is governed by Swedish rules which are some of the strictest within European jurisdictions. In addition, both If P&C and Nordea have maintained high profitability and low volatility of profits. In Sampo plc's opinion, If P&C and Nordea have themselves relatively high buffers included in their capital, then the parent company needs only minor additional reserves, if any.

Mandatum Life is the smallest company in Group and its OF with transitional measures is relatively high compared to SCR. Mandatum Life's with profit business with high guarantees is in run-off mode. Hence the capital need is decreasing over time.

- The companies also have **capacity to issue more instruments eligible for their own funds** and hence extra buffers at Group level are not required.
- **There are diversification benefits within Group:** The correlation of the business areas' reported profits are quite modest as presented in the table Diversification Benefit and Group's Internal Capital Adequacy Assessment, 31 December 2016. In particular, Nordea's profits are weakly correlated with If P&C's and Mandatum Life's profits. Hence, there is a clear diversification benefit within Group.
- **The parent company's capacity to generate liquidity is 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 2016 and 31 December 2015.

Sampo plc Balance Sheet Structure

31 December 2016 and 31 December 2015

	2016	2015
Assets total, EURm	11,196	9,606
Liquidity	1,439	739
Investment assets	179	275
Real estate	2	2
Fixed income	28	25
Equity & Private equity	148	248
Subordinated loans	637	579
Equity holdings	8,900	7,928
Subsidiaries	2,370	2,370
Associated	6,530	5,557
Other assets	41	85
	2016	2015
Liabilities total, EURm	11,196	9,606
CP's issued	671	305
LT Senior debt	2,877	1,997
Private placements	132	159
Bonds issued	2,745	1,838
Subordinated debt	0	0
Capital	7,549	7,159
Undistributable capital	98	98
Distributable capital	7,451	7,061
Other liabilities	99	145

The parent company's **financial leverage** measured as the portion of debt within all liabilities was 32 per cent (24). Increase of leverage has two reasons. When purchasing Topdanmark shares, Sampo increased its debt by EUR 400 million. Sampo also refinanced its EUR 500 million bond maturing in February 2017 already in November 2016 without redeeming the bond maturing in 2017. The leverage ratio is expected to normalize below 30 per cent during first quarter of 2017. Sampo's net debt of EUR 1,443 million is also quite modest when compared to Sampo's equity holdings and financial assets. If the gross debt would be divided by estimated market value of equity holdings, the ratio would be around 15 per cent. From this perspective leverage is low as well.

In regards to **liquidity**, the liquid funds of Sampo plc were EUR 1,439 million (739). After all dividends have been received and paid and the debt portfolio adjusted to normal levels, the estimated liquidity will be approximately EUR 100 million. The need of liquid funds for normal cash management purposes is below EUR 50 million and thus there is additional liquidity to be used for other purposes. Furthermore, a remarkable portion of subordinated loans issued by associated companies (637) and other investment assets (179) can be sold in case liquidity is needed.

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 a buffer for own funds. Because subordinated loans presented in the table Sampo plc Balance Sheet Structure, 31 December 2016 and 31 December 2015 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 slightly.

In addition to the quantifiable factors above there are qualitative factors affecting the size of buffer. If the probability for strategic arrangements within the industry increases, the Board of Directors and the management of Sampo plc may favor maintaining a higher buffer than would otherwise be needed. Also the shareholders' expectations on dividends over time has an effect. When the majority of the shareholders expect a steadily increasing stream of dividends, a higher buffer than risk based one may be justified.

Underwriting Risks

With respect to the underwriting businesses carried out in the subsidiary companies, it has been established that If P&C and Mandatum Life operate mostly in different lines of business and hence their underwriting risks are different in nature. The most material common risk factor which affects both companies' technical provisions is the life expectancy in Finland.

Hence, 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, which is why underwriting risks can be described only at the subgroup level.

Risk definitions related to underwriting risks may be found in [Appendix 2 \(Risk Definitions\)](#).

Non-Life Insurance Underwriting Risks

As a universal non-life company If P&C underwrites various risks for both individuals and corporations mostly in Nordics and Baltic countries. The Insurance operation in the Nordic region is organizationally divided into Business Areas by customer segment - Private, Commercial (small and medium sized companies) and Industrial (large corporates). Insurance operations in the Baltic countries are organized in one Business Area, Baltic.

If P&C is one of the leading insurers in Sweden, Norway and Finland with market shares of 18.2 per cent, 21.0 per cent and 23.6 per cent respectively. In the Danish market If P&C is the sixth largest insurer (by market share) with a market share of 5.7 per cent.

The Nordic P&C (property and casualty) insurance market is relatively concentrated. The four largest players account for approximately 70 to 90 per cent of the markets in Norway, Finland and Sweden (by market share) and are often established in more than one Nordic country. However, If P&C is the only company with a remarkable market share in all Nordic countries. In Denmark the market is less concentrated. Among the six leading P&C insurance companies in the Nordic market, two are mutually owned and the other insurance companies are publicly traded.

In the Nordic region customer retention is high, with renewal rates of approximately 80 to 90 per cent. The market is characterized by low expense ratios in the range of 15 to 20 per cent.

In addition to traditional distribution channels, the internet continues to grow in importance both as a distribution channel as well as a service channel. Additionally, distribution through partnerships (e.g.

with banks and car dealerships) is increasingly important.

Underwriting Performance and Risks

During 2016, Business Area Private delivered strong results with a positive net inflow of customers. The strong focus on customer experience was evidenced by a strong Net Promoter Score improvement, due to initiatives like digital health declaration and self-service options.

Business Area Commercial's performance was somewhat better than in 2015, partly affected by low interest rates with an 86.3 combined ratio.

Business Area Industrial delivered an improved technical result compared with the previous year, largely driven by lower large claim costs more-than-offsetting the effect of internal portfolio transfers and a challenging macroeconomic environment.

Business Area Baltic delivered a lower technical result than the year before, largely due to competitive market and decreasing share of broker sales due to the Net Pricing strategy that provides transparency on broker fees.

At the moment all four Business Areas are responding to customers' increased demands to incorporate modern digital solutions into the insurance services process. The Business Areas remain committed to the target of being the market leader in the digital channels and they are continuously developing their web-sites, claims handling and service interfaces, while at the same time utilizing benefits from Big Data analytics.

The table If P&C Underwriting Performance, 31 December 2016 presents the development of If P&C's premiums, claims, operating expenses, reinsurer's share and technical result per Solvency II Lines of Business. The figures are segmented in accordance

with Solvency II defined Lines of Business, which differ from the insurance class segmentation according to local GAAP or IFRS requirements that are used in other tables.

If P&C Underwriting Performance 31 December 2016

EURm	Premiums written	Premiums earned	Claims incurred	Operating expense	Reinsurers share per LoB	Total underwriting performance direct insurance
Underwriting performance by SII LoB (EURm)						
Medical expense insurance	122.3	129.6	72.4	32.6	0.2	24.3
Income protection insurance	359.9	358.0	242.7	77.2	2.1	35.9
Workers' compensation insurance	189.2	193.6	53.0	40.6	7.3	92.8
Motor vehicle liability insurance	599.6	604.7	267.6	176.2	0.8	160.1
Other motor insurance	1,268.7	1,239.4	828.7	246.8	6.1	157.8
Marine, aviation and transport insurance	115.0	116.5	59.8	24.1	29.4	3.2
Fire and other damage to property insurance	1,390.3	1,399.2	861.1	300.3	168.9	68.9
General liability insurance	253.4	254.7	154.8	49.9	26.3	23.7
Assistance	14.6	15.3	12.1	2.6	0.0	0.5
Other life insurance	33.9	32.2	6.1	6.9	3.5	15.8
Annuities stemming from non-life insurance contracts and relating to health insurance obligations	0.0	0.0	65.0	0.0	0.0	-65.0
Annuities stemming from non-life insurance contracts and relating to insurance obligations other than health insurance obligations	0.0	0.0	50.9	0.0	0.0	-50.9
Total	4,347.1	4,343.1	2,674.2	957.2	244.6	467.1

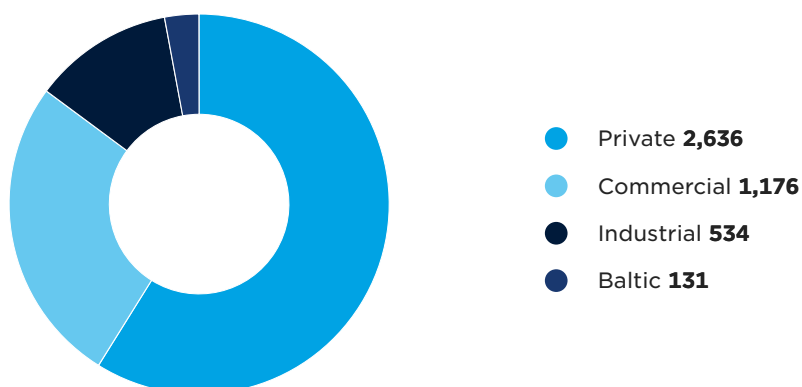
Premium and Catastrophe Risk and Their Management and Control

As shown in the below figure Breakdown of Gross Written Premiums by Business Area, Country and Line

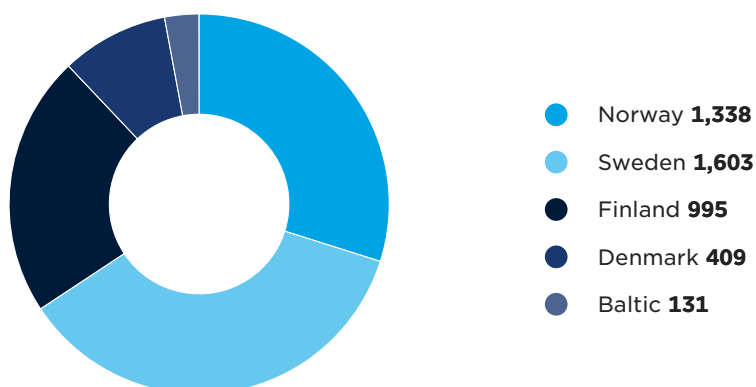
of Business, If P&C, 2016, the If P&C insurance portfolio is well diversified across Business Areas, Countries and Lines of Business. The six Lines of Business are segmented in accordance with insurance class segmentation used in IFRS.

Breakdown of Gross Written Premiums by Business Area

If P&C, 2016, total EUR 4,476 million

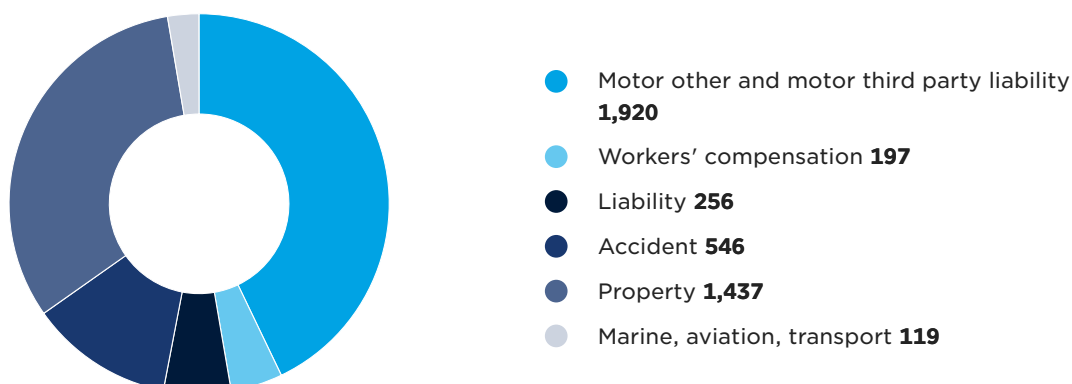
**Breakdown of Gross Written Premiums by Country**

If P&C, 2016, total EUR 4,476 million



Breakdown of Gross Written Premiums by Line of Business*

If P&C, 2016, total EUR 4,476 million



* The following adjustments from IFRS Line of Business to Solvency II Line of Business are made:

- IFRS Line of Business Motor other and motor third party liability (1,920) includes Solvency II Line of Businesses Motor vehicle liability insurance (617) and Other motor insurance (1,303).
- IFRS Line of Business Accident (546) includes Solvency II Line of Businesses Income protection insurance (370), Other life (35), Medical expense insurance (126) and Assistance (15).

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.

Private and Commercial business areas (which are by nature diversified) dominate new sales. From the geographical angle gross written premiums are highly diversified as well. In regards to Line of Business the three major lines are Motor other and motor third party liability, Property and Accident.

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 disasters 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 2016 and 31 December 2015.

Sensitivity Test of Underwriting Result, If P&C

31 December 2016 and 31 December 2015

Key figure	Current level (2016)	Change in current level	Effect on pretax profit, EURm	
			2016	2015
Combined ratio, business area Private	83.2%	+/- 1 percentage point	+/- 26	+/- 26
Combined ratio, business area Commercial	86.3%	+/- 1 percentage point	+/- 12	+/- 12
Combined ratio, business area Industrial	88.6%	+/- 1 percentage point	+/- 4	+/- 4
Combined ratio, business area Baltics	89.8%	+/- 1 percentage point	+/- 1	+/- 1
Net premiums earned (EURm)	4,286	+/- 1 per cent	+/- 43	+/- 44
Net claims incurred (EURm)	2,904	+/- 1 per cent	+/- 29	+/- 32
Ceded written premiums (EURm)	168	+/- 10 per cent	+/- 17	+/- 18

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. The Boards of Directors of If P&C approve the UW Policy at least once a year.

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 2016, retention levels were between SEK 100 million (approximately EUR 10.5 million) and SEK 250 million (approximately EUR 26.2 million) per risk and SEK 250 million (approximately EUR 26.2 million) per event.

Reserve Risk and Its Management and Control

In the table Technical Provisions by Line of Business and Major Geographical Area, If P&C, 31 December 2016 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 2016 across the product portfolios was 6.5 years.

Technical Provisions by Line of Business and Major Geographical Area If P&C, 31 December 2016

	Sweden		Norway		Finland		Denmark		Total	
	EURm	Duration	EURm	Duration	EURm	Duration	EURm	Duration	EURm	Duration
Motor other and MTPL	2,533	7.5	611	1.7	1,026	13.3	157	1.5	4,328	7.9
Workers' compensation	0	0.0	277	4.0	1,181	12.6	258	6.9	1,716	10.5
Liability	317	2.7	136	2.1	132	3.4	67	1.7	652	2.6
Accident	303	5.0	387	2.8	156	3.9	92	1.3	938	3.5
Property	418	1.2	526	1.1	219	0.8	102	0.8	1,266	1.0
Marine, aviation, transport	24	1.6	50	0.7	11	0.5	17	0.8	101	0.9
Total	3,596	6.1	1,987	2.0	2,725	10.9	694	3.0	9,001	6.5

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, 2016.

Sensitivities of Technical Provisions

If P&C, 2016

Technical provision item	Risk factor	Change in risk parameter	Country	Effect EURm 2016
Nominal provisions	Inflation increase	Increase by 1%-point	Sweden	181.7
			Denmark	10.5
			Norway	41.8
			Finland	39.3
Annuities and estimated share of claims provisions to future annuities	Decrease in mortality	Life expectancy increase by 1 year	Sweden	24.0
			Denmark	1.7
			Finland	61.6
Discounted provisions (annuities and part of Finnish IBNR)	Decrease in discount rate	Decrease by 1%-point	Sweden	67.3
			Denmark	14.0
			Finland	279.7

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 27](#) 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 67 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.

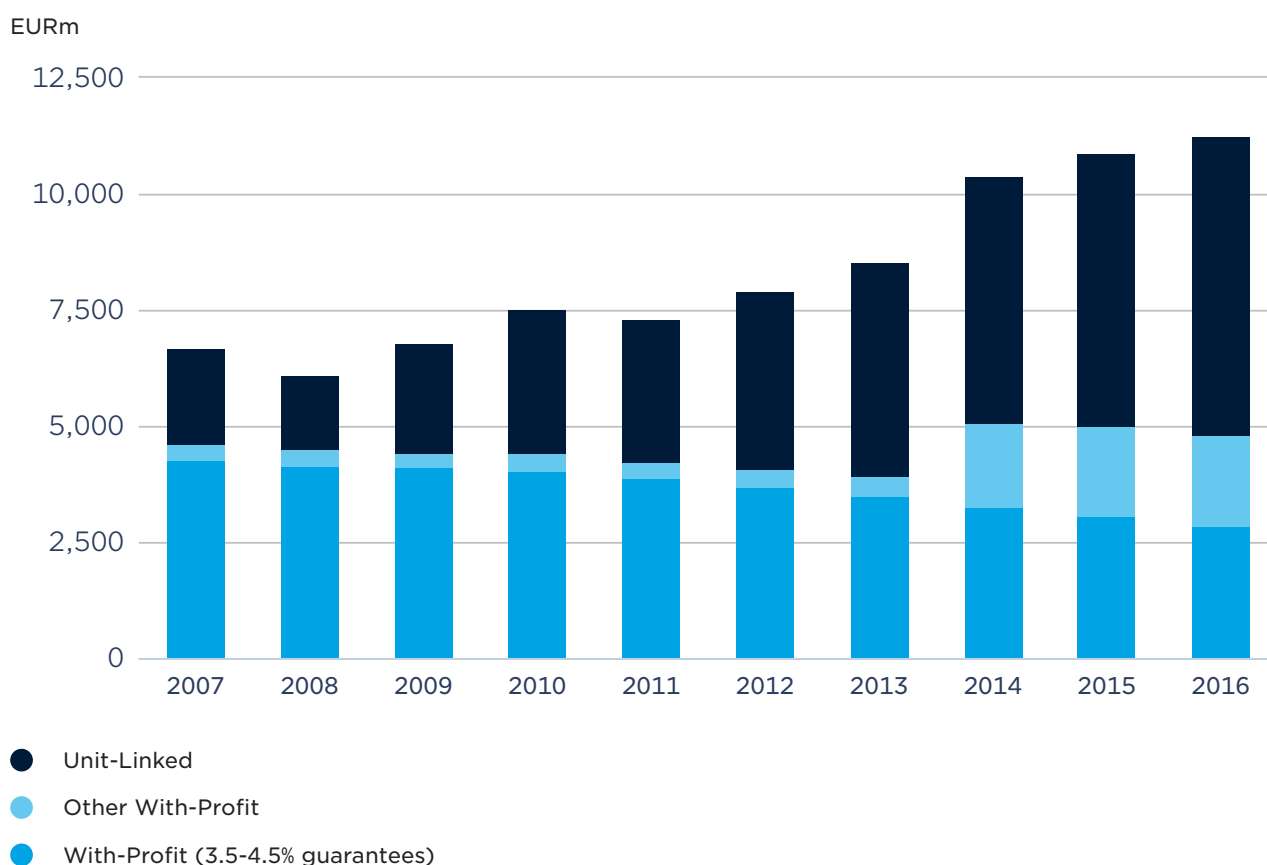
The actuarial estimates are based on historical claims and existing exposures that are available at the balance sheet date. Factors that are monitored include loss development trends, the level of unpaid claims, changes in legislation, case law and economic conditions. When setting property and casualty 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.

Life Insurance Underwriting Risks

The unit-linked business has been Mandatum Life's main focus since 2001. Since then the trend of unit-linked technical provisions has been upward and the average annual growth in unit-linked technical provisions has been 23 per cent per annum. Due to the nature of the unit-linked business, volatility between the years has been relatively high. Around EUR 3,000 million of current unit-linked liabilities totaling EUR 6,440 million are sold through Danske Bank. These liabilities, together with around EUR 200 million of with profit liabilities, will be transferred to Danske Bank A/S. Transfer date is expected to be at earliest 31.12.2017.

In contrast to the unit-linked trend, the trend of with-profit technical provisions has been downward since 2005 (with the exception of year 2014 when group pension portfolio from Suomi Mutual was transferred to Mandatum Life). In particular, the parts of technical provisions with the highest guarantees (4.5 per cent and 3.5 per cent) have decreased. The development of with-profit and unit-linked portfolios is presented in the figure Development of With-Profit and Unit-Linked Technical Provisions, Mandatum Life, 2007–2016.

Development of With Profit and Unit-Linked Technical Provisions
Mandatum Life, 2007–2016



The above mentioned group pension portfolio transferred from Suomi Mutual and related assets are separated from the rest of the Mandatum Life balance sheet into a segregated group pension portfolio. The segregated group pension portfolio has its own profit sharing rules, investment policy and asset and liability

management committee. The with profit liabilities other than in the segregated group pension portfolio are hereafter referred to as the "original" with profit liabilities.

Underwriting Performance and Risks

During the year 2016 insurance liabilities developed as planned. Unit-linked business increased and with profit liabilities with the highest guarantees decreased. The technical provisions with the highest

guarantees fell by EUR 214 million. In total the with profit technical provisions decreased less (EUR 193 million) due to increased discount rate reserves.

The development of insurance liabilities during 2016 is shown in the table Analysis of the Change in Provisions before Reinsurance, Mandatum Life, 2016.

Analysis of the Change in Provisions before Reinsurance

Mandatum Life, 31 December 2016

EURm	Liability 2015	Premiums	Claims paid	Expense charges	Guaranteed interest	Bonuses	Other	Liability 2016	Share %
Mandatum Life parent company									
Unit-linked total	5,703	946	-553	-61	0	0	244	6,279	56%
Individual pension insurance	1,248	66	-14	-14	0	0	27	1,313	12%
Individual life	2,104	343	-186	-20	0	0	106	2,346	21%
Capital redemption operations	1,779	472	-349	-20	0	0	95	1,977	18%
Group pension	573	65	-4	-7	0	0	16	643	6%
With profit and others total	4,996	146	-468	-37	138	5	24	4,804	43%
Group pension insurance, segregated portfolio	1,196	9	-72	-2	24	4	-16	1,142	10%
Basic liabilities, guaranteed rate 3.5%	782	9	-72	-2	24	4	-30	715	6%
Reserve for decreased discount rate (3.5% -> 0.50%)	257	0	0	0	0	0	18	275	2%
Future bonus reserves	157	0	0	0	0	0	-5	153	1%
Group pension	2,180	55	-209	-7	71	1	27	2,117	19%
Guaranteed rate 3.5%	2,010	4	-187	-3	67	0	-7	1,885	17%
Guaranteed rate 2.5%, 1.5% or 0.0%	170	51	-22	-4	4	1	33	232	2%
Individual pension insurance	973	12	-144	-6	36	0	27	899	8%
Guaranteed rate 4.5%	770	10	-99	-4	31	0	-13	695	6%
Guaranteed rate 3.5%	142	2	-28	-1	4	0	18	137	1%
Guaranteed rate 2.5% or 0.0%	61	1	-17	0	1	0	22	67	1%
Individual life insurance	197	32	-29	-10	6	0	-16	180	2%
Guaranteed rate 4.5%	61	5	-7	-1	3	0	-2	58	1%
Guaranteed rate 3.5%	93	10	-10	-3	3	0	-6	86	1%
Guaranteed rate 2.5% or 0.0%	44	17	-12	-5	1	0	-8	35	0%
Capital redemption operations	36	0	0	0	0	0	-8	28	0%
Guaranteed rate 3.5%	0	0	0	0	0	0	0	0	0%
Guaranteed rate 2.5% or 0.0%	36	0	0	0	0	0	-8	28	0%
Future bonus reserves	0	0	0	0	0	0	0	0	0%
Reserve for decreased discount rate	244	0	0	0	0	0	28	273	2%
Longevity reserve	106	0	0	0	0	0	-1	105	1%
Assumed reinsurance	2	3	-1	0	0	0	-2	2	0%
Other liabilities	63	35	-13	-12	0	0	-14	59	1%
Mandatum Life parent company total	10,699	1,092	-1,021	-98	138	5	268	11,083	98%
Subsidiary SE Sampo Life Insurance Baltic	173	30	-27	-3	1	0	4	178	2%
Unit-linked liabilities	155	26	-25	-2	0	0	6	161	1%
Other liabilities	18	3	-2	0	1	0	-2	17	0%
Mandatum Life group total	10,873	1,122	-1,048	-101	138	5	272	11,261	100%

Biometric Risks

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. 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, i.e. for the segregated group pension portfolio the average age is around 68 years and for the other (original) group pension portfolios it is around 69 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 2016 technical provision by EUR 105 million (106) 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 2016 was EUR 2.9 million (5.7).

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, 2016 and 2015 shows the insurance risk result in Mandatum Life's Finnish life insurance policies. The ratio of the actual to expected claims costs was 79 per cent (72) in 2016. 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, 2016 and 2015

EURm	2016			2015		
	Risk income	Claim expense	Claim ratio	Risk income	Claim expense	Claim ratio
Life insurance	43.2	21.2	49%	42.4	20.1	47%
Mortality	24.8	11.8	48%	24.0	9.7	40%
Morbidity and disability	18.4	9.4	51%	18.4	10.4	57%
Pension	80.8	76.2	94%	68.1	59.9	88%
Individual pension	12.0	12.8	107%	11.6	12.3	106%
Group pension	68.8	63.4	92%	56.5	47.6	84%
Mortality (Longevity)	63.9	61.0	95%	48.9	43.2	88%
Disability	4.9	2.4	49%	7.6	4.4	58%
Mandatum Life	124.0	97.4	79%	110.5	80.0	72%

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 risk selection and claims 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 only 5 per cent (EUR 208 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. Hence, 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 a competitive level. In year 2016, the expense result of Mandatum Life Group was EUR 26 million (27). Mandatum Life does not defer insurance acquisition costs. Since 2012 the expense result has grown significantly due to increased fee income from unit-linked liabilities and cost efficiency program, as presented in the table Expense result, Mandatum Life Group, years 2007-2016.

Expense result Mandatum Life Group, years 2007-2016

Year	Expense result, EURm
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
2007	16.2

Discount Rate Risk

As can be seen from the table Analysis of the Change in Provisions before Reinsurance, Mandatum Life, 2016 presented earlier, in most of the original with profit policies the guaranteed interest rate is 3.5 per cent. In individual policies sold in Finland before 1999, the guaranteed interest rate is 4.5 per cent, which is also the statutory maximum discount rate of these policies. Mandatum Life has sold policies with lower guaranteed rates as well but their share is small.

With respect to with profit policies with the 4.5 per cent guaranteed rate, the maximum discount rate used when discounting technical provisions has been decreased to 3.5 per cent over the lifetime of these policies. As a result, technical provisions were supplemented by a reserve of EUR 48 million (55) at the end of 2016.

In addition, there are reserves for years 2017-2019 to lower interest rates of with profit liabilities as follows:

- EUR 98 million has been reserved to lower the interest rate to 0.25 per cent for year 2017;
- EUR 90 million for the year 2018 to lower the interest rate to 0.50 per cent; and
- EUR 37 million for the year 2019 to lower the interest rate to 2.25 per cent.

In total, Mandatum Life has set up an extra reserve of EUR 273 million as part of the original insurance portfolio's technical provisions.

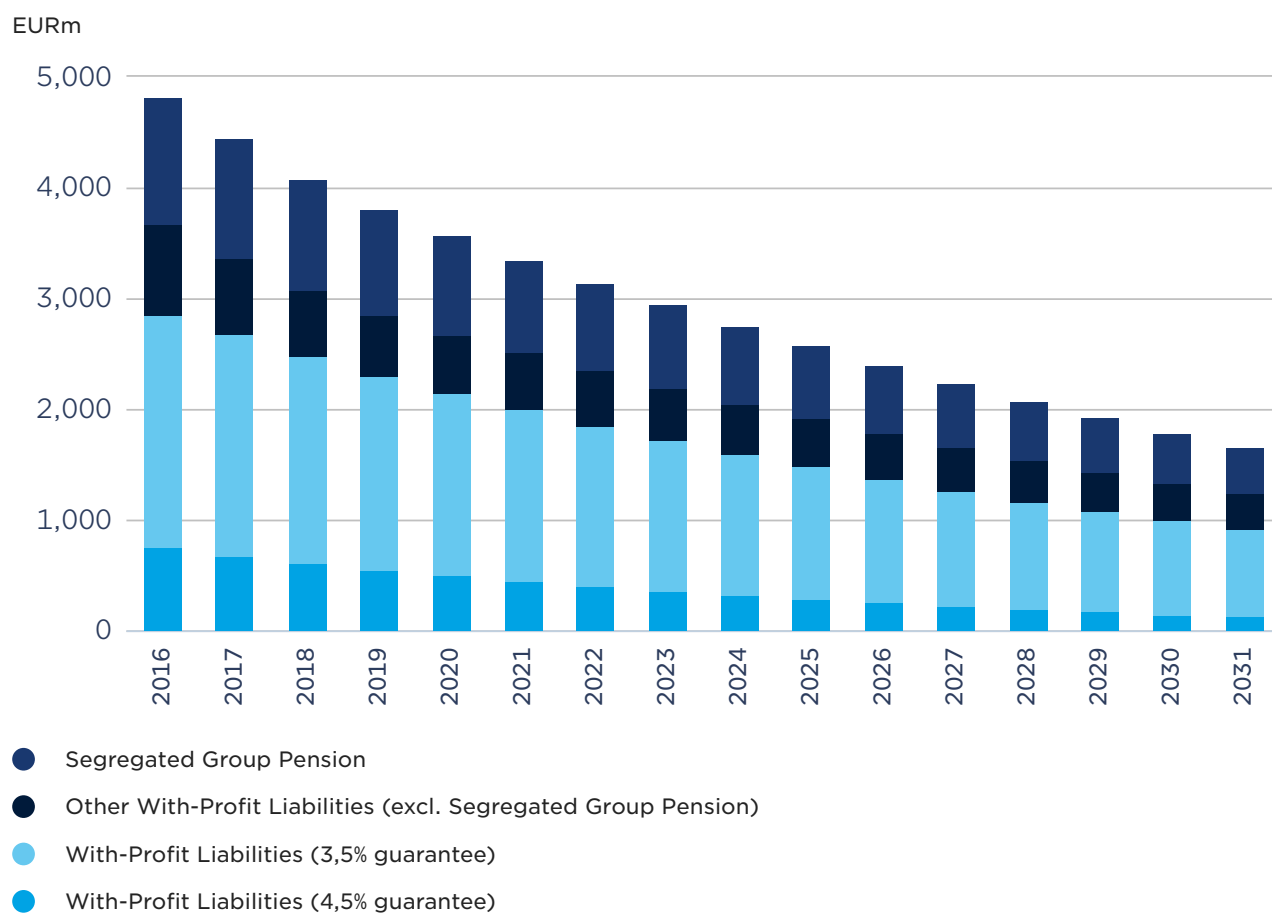
The guaranteed interest for the segregated group pension policies is mainly 3.5 per cent. More important from a risk management point of view is that the discount rate of liabilities is 0.50 per cent. The discount rate was decreased on 31 December 2016 from 0.75 per cent to 0.50 per cent which increased the reserve for decreased discount rate to EUR 275 million (257). The reserve for future bonuses has an important role in the risk management of the segregated group pension portfolio. The reserve amounts to EUR 153 million, which can be used to cover possible investment losses or to finance possible changes in the discount rate of segregated technical provisions.

The decreasing trend of with profit liabilities is expected to continue. Liabilities with the highest guarantees and highest capital consumption are expected to decrease from EUR 2,861 million to around EUR 1,000 million during the Solvency II transitional period of the technical provision (1 January 2017–31 December 2031). Duration of segregated group pension portfolio is around 10 years and duration of original with profit portfolio is around 9 years.

The figure Forecast of With Profit Liabilities, 31 December 2016–31 December 2031 shows the expected trend of existing with profit liabilities.

Forecast of With Profit Liabilities

Mandatum Life, 31 December 2016–31 December 2031



Investment Portfolio Market Risks

In Sampo Group, performance and market risks related to investment portfolios are mostly straightforward to analyze and manage, because Group applies mark-to-market procedures to most of its investments and only seldom are there instruments that require mark-to-model procedures.

In addition to investment portfolio market risks, the companies' balance sheets are also exposed to market and liquidity risks. These balance sheet level risks are defined as ALM risks and they are covered later in the

section [ALM risks](#). The ALM risks at the balance sheet level are taken into account when investment portfolio allocations are designed and related limits and restrictions are defined.

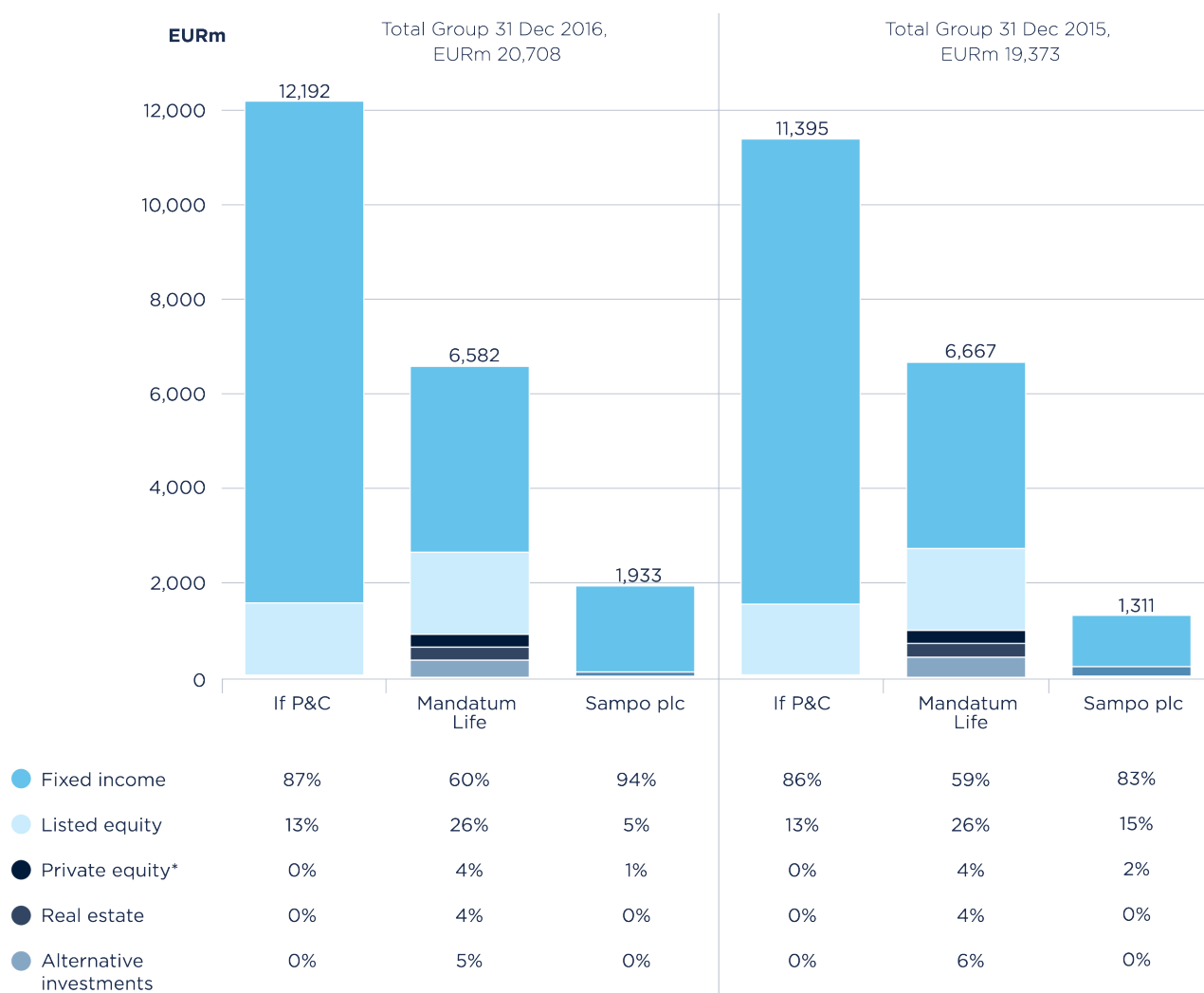
Risk definitions related to investment portfolio market risks may be found in [Appendix 2 \(Risk Definitions\)](#). Principles of Investment Portfolio Management can be found in [Appendix 3 \(Principles of Investment Portfolio Management\)](#).

Asset Allocations and Investment Performance

The total amount of Sampo Group's investment assets as at 31 December 2016 was EUR 20,708 million (19,373). Mandatum Life's investment assets presented here do not include assets which cover unit-linked contracts. The composition of the investment

portfolios by asset classes in If P&C, Mandatum Life and Sampo plc at year end 2016 and at year end 2015 are shown in the figure Development of Investment Portfolios, If P&C, Mandatum Life and Sampo plc, 31 December 2016 and 31 December 2015.

Development of Investment Portfolios, If P&C, Mandatum Life and Sampo plc 31 December 2016 and 31 December 2015



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

Sampo plc's figures don't include debt instruments issued by the insurance subsidiaries. The investments of Mandatum Life's Baltic subsidiary are included in Mandatum Life's investment assets as equity in all tables and graphs in this Risk Management section.

More detailed investment allocations and average maturities of fixed income investments of If P&C, Mandatum Life, Sampo plc and Sampo Group as at

year-end 2016 are presented in the table Consolidated Investment Allocation, If P&C, Mandatum Life, Sampo plc and Sampo Group, 31 December 2016.

Consolidated Investment Allocation

If P&C, Mandatum Life, Sampo plc and Sampo Group, 31 December 2016

Asset class	If P&C		Mandatum Life		Sampo plc		Sampo Group		
	Market value, EURm	Average maturity, years	Market value, EURm	Average maturity, years	Market value, EURm	Average maturity, years	Market value, EURm	Weight	Average maturity, years
Fixed income total	10,624	2.8	3,938	2.7	1,812	0.6	16,374	79%	2.5
Money market securities and cash	992	0.3	859	0.5	1,440	0.0	3,291	16%	0.2
Government bonds	1,231	3.1	64	5.1	0	0.0	1,295	6%	3.2
Credit bonds, funds and loans	8,401	3.1	3,009	3.3	372	3.1	11,782	57%	3.1
<i>Covered bonds</i>	2,967	3.1	178	2.6	0	0.0	3,145	15%	3.1
<i>Investment grade bonds and loans</i>	3,404	2.9	1,586	2.7	263	3.4	5,252	25%	2.9
<i>High-yield bonds and loans</i>	1,461	3.0	884	3.7	109	2.4	2,454	12%	3.2
<i>Subordinated / Tier 2</i>	278	4.5	52	8.1	0	0.0	330	2%	5.1
<i>Subordinated / Tier 1</i>	292	3.9	310	4.7	0	0.0	602	3%	4.3
<i>Hedging swaps</i>	0	-	0	-	0	-	0	0%	-
Policy loans	0	0.0	6	1.9	0	0.0	6	0%	1.9
Listed equity total	1,527	-	1,737	-	88	-	3,352	16%	-
Finland	0	-	623	-	77	-	700	3%	-
Scandinavia	1,147	-	1	-	0	-	1,148	6%	-
Global	380	-	1,114	-	11	-	1,505	7%	-
Alternative investments total	44	-	907	-	22	-	973	5%	-
Real estate	22	-	278	-	2	-	301	1%	-
Private equity*	23	-	269	-	19	-	311	2%	-
Biometric	0	-	26	-	0	-	26	0%	-
Commodities	0	-	0	-	0	-	0	0	-
Other alternative	0	-	334	-	0	-	334	2%	-
Trading derivatives	-3	-	0	-	12	-	9	0%	-
Asset classes total	12,192	-	6,582	-	1,933	-	20,708	100%	-
FX Exposure, gross position	99	-	833	-	1,111	-	2,043	-	-

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

The parent company's asset portfolio includes subordinated debt instruments issued by the Group companies, but they are not included in the consolidated figures presented above. The portion of short-term money market instruments is substantial, because Sampo prefers to have high liquidity. From time to time the asset portfolios may include other investments as well. The market risks of the parent company are limited. Interest rate risk arising from gross debt and the interest bearing assets are Sampo's most significant market risk together with refinancing risk related to gross debt.

Fixed income investments and listed equity instruments form a major part of the subsidiaries' investment portfolios. Money market securities, cash and investment grade government bonds form a liquidity buffer within fixed income investments. The average maturity of fixed income investments was 2.8 years in If P&C and 2.7 years in Mandatum Life.

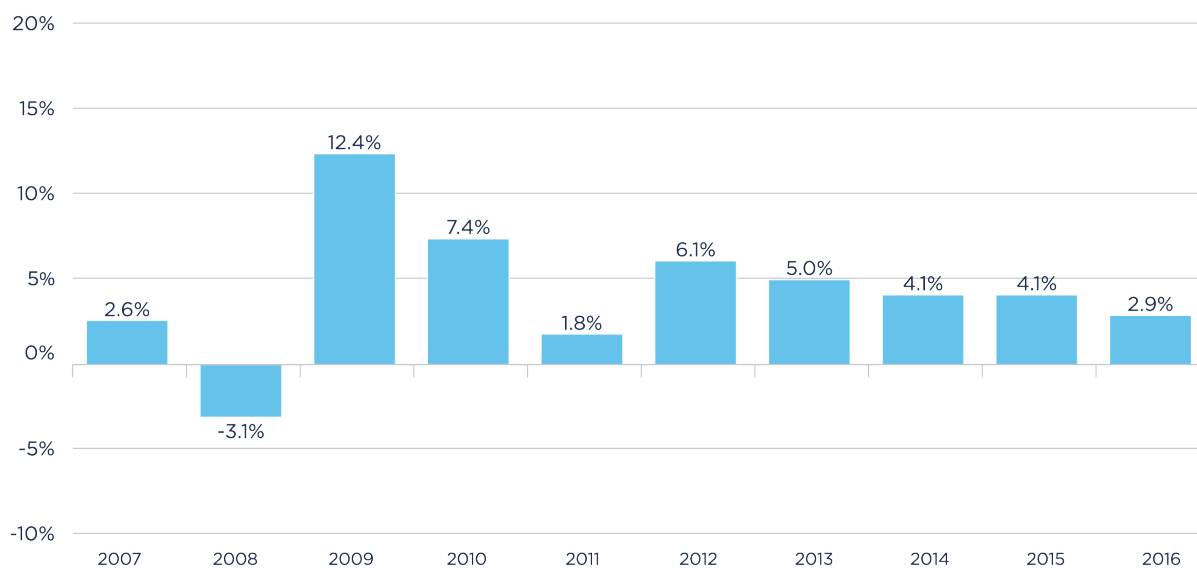
Both If P&C and Mandatum Life are exposed to interest rate and currency risks as well as to equity and spread risks.

Additionally, If P&C and Mandatum Life have real estate, private equity, biometric and other alternative investments. The Investment Policies set limits for the maximum allocations into these asset classes and products. On 31 December 2016, the combined share of the above mentioned investments was 4.7 per cent of the total investment portfolio of Sampo Group. In If P&C the proportion was 0.4 per cent and in Mandatum Life it was 13.8 per cent. These asset classes are managed, in most cases, by external asset managers with the exception of the Group's real estate portfolio which is managed by Sampo Group's 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 and debt instruments of real estate companies.

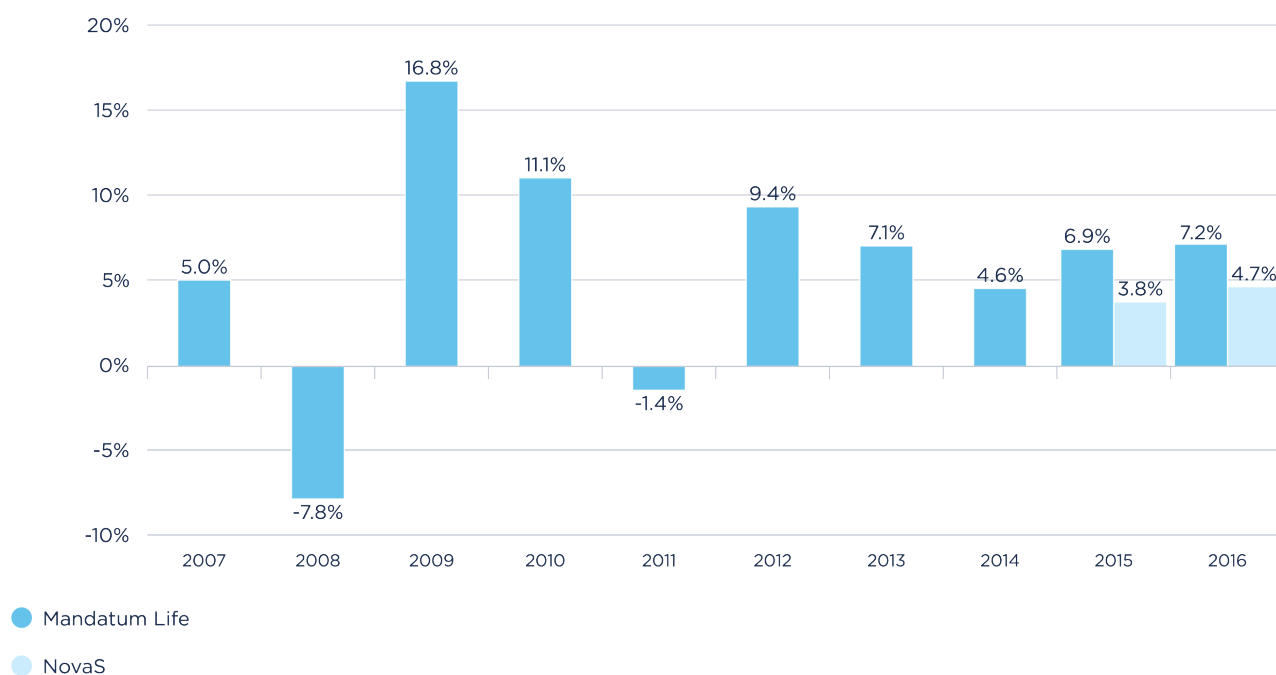
The insurance liabilities as well as the risk appetite of Mandatum Life and If P&C differ, and as a result the structures and risks of the investment portfolios of the two companies are often different, as can be seen in the table [Consolidated Investment Allocation, If P&C, Mandatum Life, Sampo plc and Sampo Group, 31 December 2016](#) presented earlier. This is reflected also

in the companies' investment returns. Mandatum Life has had, on average, higher returns and higher volatility. The figures Annual Investment Returns at Fair Values, If P&C and Mandatum Life, 2007–2016 present the historical development of investment returns.

Annual Investment Returns at Fair Values If P&C, 2007–2016



Annual Investment Returns at Fair Values Mandatum Life, 2007–2016



The weighted average investment return of Group's investment portfolios (including Sampo plc) in 2016 was 3.9 per cent (3.1).

Interest Rate and Currency Risks

Interest Rate Risk

Interest rate sensitivity in terms of the average duration of fixed income investments in If P&C was 1.4 years and in Mandatum Life 2.0 years. These duration figures include the effect of hedging derivatives. The respective durations of insurance liabilities in If P&C and Mandatum Life were 6.5 and 9 years. Interest rate risk is managed at the balance sheet level by changing the duration of assets and interest rate derivatives. This is described in detail in section ALM Risks.

In addition, derivatives are used to utilize market view or to mitigate risks at the balance sheet level. In both cases, derivatives are booked as trading derivatives at fair value through profit and loss statement in financial accounting.

Currency Risk

In Sampo Group companies the net foreign currency exposure is considered as a separate asset class and is managed within investment portfolio activities. Open transaction risk positions are identified and measured separately for each subsidiary. The net position in each currency consists of the assets, liabilities and foreign exchange transactions denominated in the particular currency.

If P&C writes insurance policies that are mostly denominated in the Scandinavian currencies and in euro. In If P&C, the transaction risk is reduced by matching technical provisions with investment assets in the corresponding currencies or by using currency derivatives. Hence there is no structural FX risk. On the other hand, If P&C can open short or long FX positions (active FX risk) within its FX risk limits.

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 If P&C and Mandatum Life against their base currencies are shown in the table Transaction Risk Position, If P&C and Mandatum Life, 31 December 2016. 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 and Mandatum Life, 31 December 2016

	Base currency	EUR	USD	JPY	GBP	SEK	NOK	CHF	DKK	Other	Total, net
If P&C	SEKm										
Insurance operations		-150	-155	0	-8	-27	-2,421	-10	-804	-27	-3,601
Investments		11	1,150	0	0	12	2,702	0	68	1	3,945
Derivatives		102	-998	0	12	18	-245	9	732	-2	-372
Total transaction risk, net position, If P&C		-36	-2	0	4	3	36	-1	-4	-28	-27
Sensitivity: SEK -10%		-4	0	0	0	0	4	0	0	-3	-3
Mandatum Life	EURm										
Technical provisions		0	0	0	0	-2	0	0	0	0	-2
Investments		0	2,035	24	181	61	12	185	13	112	2,622
Derivatives		0	-1,543	-21	-180	77	110	-189	-13	-43	-1,801
Total transaction risk, net position, Mandatum Life		0	492	2	1	135	122	-3	-1	70	819
Sensitivity: EUR -10%		0	49	0	0	14	12	0	0	7	82

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

Sampo plc's transaction risk position is related mainly to SEK denominated dividends paid by If P&C and to debt instruments in currencies other than euro. The asset portfolio may from time to time include assets denominated in foreign currencies.

In addition to transaction risk, Sampo Group and its insurance subsidiaries are also exposed to translation

risk. At group level it stems from If P&C; within If P&C it stems mainly from its Finnish subsidiary. Translation risk, and its management in Sampo Group, were described in the [Profitability, Risks and Capital](#) section.

Equity and Spread Risks

Most of Sampo Group's investments in fixed income securities and listed equities are tradable and hence subject to daily mark-to-market valuation. Moreover, Sampo Group has also some illiquid investments – loan instruments and private equity – for which market prices are not frequently available, but whose fair values can change adversely when the financial strength or future prospects of the issuer deteriorates or the value of collaterals decreases.

Exposures in Fixed Income and Equity Instruments

Exposures in fixed income and equity instruments are shown in the tables Exposures by Sectors, Asset Classes and Rating, If P&C, Mandatum Life and Sampo Group, 31 December 2016. The tables 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 Sectors, Asset Classes and Rating If P&C, 31 December 2016

EURm	AAA	AA+ - AA-	A+ - A-	BBB+ - BBB-	BB+ - B	D	Non- rated	Fixed income total	Listed equities	Other	Counter- party risk	Total	Change 31 Dec 2015
Basic Industry	0	0	20	38	26	0	37	120	40	0	0	160	11
Capital Goods	0	23	64	48	0	0	21	156	541	0	0	698	100
Consumer Products	0	126	176	184	33	0	64	582	386	0	0	968	206
Energy	0	45	96	0	41	0	231	413	9	0	0	421	86
Financial Institutions	0	1,234	1,371	380	55	0	38	3,078	35	0	1	3,114	-268
Governments	123	0	0	0	0	0	0	123	0	0	0	123	-19
Government Guaranteed	78	78	0	0	0	0	0	156	0	0	0	156	-2
Health Care	7	0	42	30	0	0	8	86	57	0	0	143	52
Insurance	0	0	41	61	4	0	5	111	0	0	106	217	30
Media	0	0	2	0	0	0	33	35	0	0	0	35	14
Packaging	0	0	0	0	0	0	6	6	0	0	0	6	0
Public Sector, Other	781	171	0	0	0	0	0	952	0	0	0	952	-127
Real Estate	0	6	58	32	0	0	485	581	0	22	0	603	110
Services	0	0	0	67	101	0	21	189	0	0	0	189	73
Technology and Electronics	0	38	21	0	0	0	38	97	7	0	0	104	40
Telecommunications	0	0	80	27	0	0	42	149	62	0	0	211	18
Transportation	0	107	51	55	11	0	144	368	11	0	0	379	73
Utilities	0	0	0	327	51	0	62	441	0	0	0	441	87
Others	0	15	0	0	0	0	0	15	0	1	0	17	14
Asset-backed Securities	0	0	0	0	0	0	0	0	0	0	0	0	0
Covered Bonds	2,873	94	0	0	0	0	0	2,967	0	0	0	2,967	315
Funds	0	0	0	0	0	0	0	0	380	22	0	402	-21
Clearing House	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	3,861	1,938	2,022	1,249	322	0	1,234	10,625	1,526	44	108	12,303	792
Change 31 Dec 2015	153	-302	370	457	41	0	53	772	28	-2	-5	792	

Exposures by Sectors, Asset Classes and Rating

Mandatum Life, 31 December 2016

EURm	AAA	AA+ - AA-	A+ - A-	BBB+ - BBB-	BB+ - C	D	Non-rated	Fixed income total	Listed equities	Other	Counter-party risk	Total	Change 31 Dec 2015
Basic Industry	0	0	0	2	81	0	35	118	151	0	0	269	-43
Capital Goods	0	10	39	7	5	0	69	129	143	0	0	272	-34
Consumer Products	0	49	135	87	46	0	10	327	258	0	0	584	8
Energy	0	33	19	0	14	0	8	74	6	0	0	80	-35
Financial Institutions	0	682	962	316	51	0	0	2,012	27	1	22	2,062	161
Governments	18	0	0	0	0	0	0	18	0	0	0	18	-12
Government Guaranteed	0	0	0	0	0	0	0	0	0	0	0	0	0
Health Care	0	15	24	4	45	0	51	139	50	0	0	189	-19
Insurance	0	0	1	49	0	0	6	56	3	20	0	78	24
Media	0	0	9	0	12	0	21	42	0	0	0	42	-17
Packaging	0	0	0	0	61	0	7	68	1	0	0	68	-17
Public Sector, Other	0	27	44	0	0	0	0	70	0	0	0	70	2
Real Estate	0	0	0	26	0	0	55	81	0	230	0	311	-16
Services	0	0	0	26	66	0	58	151	80	0	0	231	1
Technology and Electronics	4	6	15	30	7	0	20	81	151	0	0	232	47
Telecommunications	0	0	7	16	40	0	16	79	29	0	0	108	13
Transportation	0	0	0	2	12	0	5	20	24	0	0	44	9
Utilities	0	2	1	140	23	0	0	166	0	0	0	166	2
Others	0	0	0	0	19	0	2	21	0	58	0	79	-3
Asset-backed Securities	0	0	0	0	0	0	0	0	0	0	0	0	0
Covered Bonds	154	12	0	11	0	0	0	178	0	0	0	178	-20
Funds	0	0	0	0	0	0	108	108	816	598	0	1,521	-117
Clearing House	0	0	0	0	0	0	0	0	0	0	5	5	5
Total	177	836	1,256	716	483	0	471	3,938	1,737	907	27	6,609	-61
Change 31 Dec 2015	-31	103	56	187	-319	0	-3	-7	5	-85	25	-61	

Exposures by Sectors, Asset Classes and Rating

Sampo Group, 31 December 2016

EURm	AAA	AA+ - AA-	A+ - A-	BBB+ - BBB-	BB+ - C	D	Non-rated	Fixed income total	Listed equities	Other	Counter- party risk	Total	Change 31 Dec 2015
Basic Industry	0	0	20	40	107	0	72	239	191	0	0	429	-32
Capital Goods	0	32	103	55	5	0	90	285	685	0	0	970	57
Consumer Products	0	176	311	271	78	0	74	909	643	0	0	1,553	214
Energy	0	78	115	0	55	0	239	487	15	0	0	502	51
Financial Institutions	0	3,128	2,561	959	106	0	38	6,793	98	1	24	6,917	508
Governments	141	0	0	0	0	0	0	141	0	0	0	141	-30
Government Guaranteed	78	78	0	0	0	0	0	156	0	0	0	156	-2
Health Care	7	15	66	34	45	0	59	225	107	0	0	438	35
Insurance	0	0	42	110	4	0	100	256	3	37	106	295	54
Media	0	0	11	0	12	0	54	77	0	0	0	77	-2
Packaging	0	0	0	0	61	0	12	73	1	0	0	74	-17
Public Sector, Other	781	198	44	0	0	0	0	1,022	0	0	0	1,022	-124
Real Estate	0	6	58	58	0	0	541	663	0	253	0	916	94
Services	0	0	0	93	168	0	79	340	109	0	0	449	81
Technology and Electronics	4	44	36	30	7	0	58	178	158	0	0	336	87
Telecommunications	0	0	87	43	40	0	58	228	90	0	0	318	31
Transportation	0	107	51	57	23	0	169	407	35	0	0	442	90
Utilities	0	2	1	467	75	0	62	607	0	0	0	607	88
Others	0	15	0	0	19	0	2	36	0	59	0	96	11
Asset-backed Securities	0	0	0	0	0	0	0	0	0	0	0	0	0
Covered Bonds	3,027	107	0	11	0	0	0	3,145	0	0	0	3,145	295
Funds	0	0	0	0	0	0	108	108	1,217	622	0	1,946	-118
Clearing House	0	0	0	0	0	0	0	0	0	0	5	5	5
Total	4,038	3,986	3,505	2,228	805	0	1,813	16,375	3,351	973	135	20,833	1,375
Change 31 Dec 2015	122	687	240	699	-277	0	55	1,526	-80	-88	16	1,375	

The largest holdings are in financial institutions and covered bonds. Most of these investments are in the Nordic countries as can be seen in the table Fixed Income Investments in Financial Sector, Sampo Group,

31 December 2016. These exposures increased by EUR 965 million during 2016.

Fixed Income Investments in Financial Sector

Sampo Group, 31 December 2016

EURm	Covered bonds	Cash and money market securities	Long-term senior debt	Long-term subordinated debt	Total	%
Sweden	1,998	352	798	458	3,606	36.3%
Finland	132	2,207	251	6	2,596	26.1%
Norway	651		396	224	1,272	12.8%
Denmark	207	7	312	71	597	6.0%
United States		5	356		361	3.6%
United Kingdom	12	282	24	2	321	3.2%
France	22	194	62	14	292	2.9%
Canada	72		142		214	2.2%
Netherlands		0	201		201	2.0%
Switzerland			178	11	189	1.9%
Iceland			91		91	0.9%
Germany	19	6	52	0	78	0.8%
Australia	19		28		48	0.5%
Guernsey			28		28	0.3%
Estonia		23			23	0.2%
Luxembourg	11				11	0.1%
Cayman Islands			7		7	0.1%
Italy		5			5	0.1%
Latvia		0			0	0.0%
Total	3,145	3,083	2,924	786	9,938	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, 31

December 2016. The public sector has had a relatively minor role in Sampo Group's portfolios and these exposures have been mainly in the Nordic countries.

Fixed Income Investments in Public Sector

Sampo Group, 31 December 2016

EURm	Governments	Government guaranteed	Public sector, other	Total market value
Sweden	100		679	779
Norway			250	250
Finland		78	75	153
Germany		67		67
United States	41			41
Japan			19	19
Denmark		11		11
Total	141	156	1,022	1,319

The exposures in non-investment grade fixed income instruments are significant, because a relatively small number of Nordic companies are rated; further, of rated companies many have a rating lower than triple-B (high yield). The largest high-yield and non-rated

fixed income investment exposures are presented in the table Ten Largest Direct High Yield and Non-rated Fixed Income Investments, Sampo Group, 31 December 2016.

Ten Largest Direct High Yield and Non-Rated Fixed Income Investments

Sampo Group, 31 December 2016

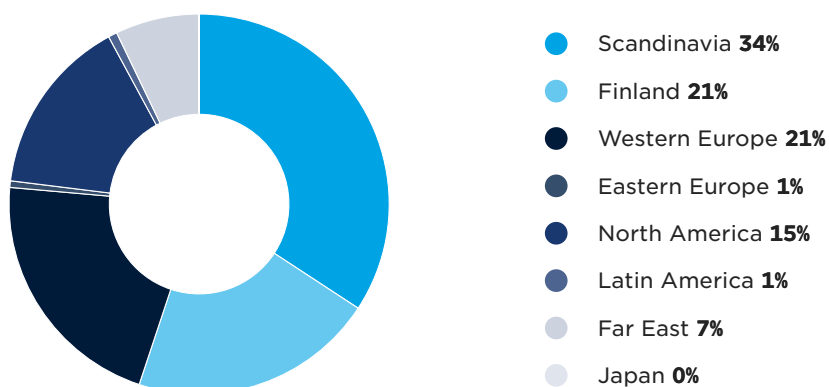
Largest direct high yield and non-rated fixed income investments	Rating	Total fair value, EURm	% of total direct fixed income investments
High Street Shopping	NR	127	0.8%
Teollisuuden Voima	BB+	125	0.8%
Topdanmark	NR	89	0.5%
Eksportfinans	BB-	60	0.4%
IVG Polar	NR	57	0.4%
Sponda	NR	53	0.3%
Nassa Midco	B	50	0.3%
Storebrand	BB+	49	0.3%
Aker	NR	46	0.3%
YIT	NR	45	0.3%
Total top 10 exposures		702	4.3%
Other direct fixed income investments		15,565	95.7%
Total direct fixed income investments		16,267	100.0%

The listed equity investments of Sampo Group totaled EUR 3,352 million (3,431) at the end of year 2016. At the end of year 2016, the listed equity exposure of If P&C was EUR 1,527 million (1,498). The proportion of listed equities in If P&C's investment portfolio was 12.5 per cent. In Mandatum Life, the listed equity exposure was EUR 1,737 million (1,732) at the end of year 2016 and the proportion of listed equities was 26.4 per cent of the investment portfolio.

A breakdown of the listed equity exposures of Sampo Group by geographical regions is shown in the figure Breakdown of Listed Equity Investments by Geographical Regions, Sampo Group, If P&C and Mandatum Life, 31 December 2016.

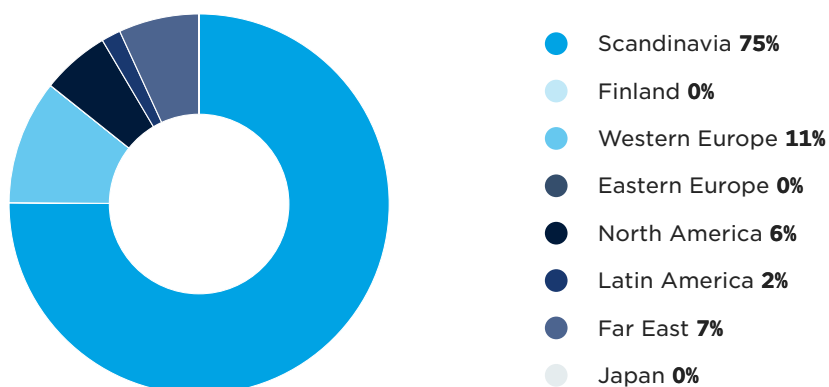
Breakdown of Listed Equity Investments by Geographical Regions

Sampo Group, 31 December 2016, total EUR 3,352 million



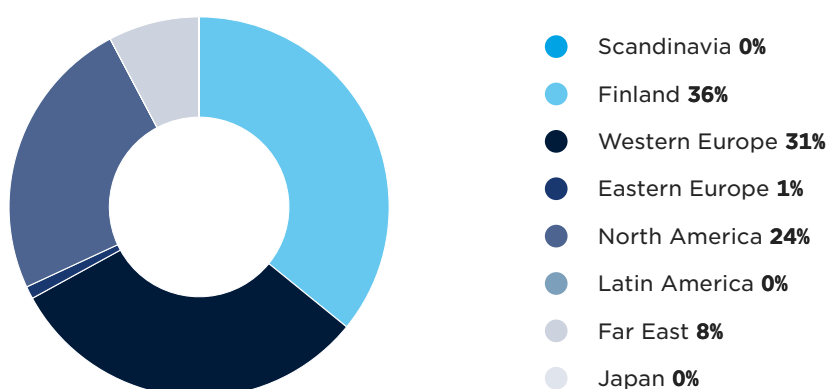
Breakdown of Listed Equity Investments by Geographical Regions

If P&C, 31 December 2016, total EUR 1,527 million



Breakdown of Listed Equity Investments by Geographical Regions

Mandatum Life, 31 December 2016, total EUR 1,737 million



The geographical core of Sampo Group's equity investments is in the Nordic companies. The proportion of Nordic companies' equities corresponds to 55 per cent of the total equity portfolio. This is in line with Sampo Group's investment strategy of focusing on Nordic companies. Moreover, Group's insurance liabilities are mostly denominated in euro or the Nordic currencies. 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.

The sector allocation of direct listed equity investments in Sampo Group is presented in the tables [Exposures by Sectors, Asset Classes and Rating, If P&C, Mandatum Life and Sampo Group, 31 December 2016](#). The largest allocations are to capital goods, consumer products and basic industry. Listed equity investments made through mutual funds and ETF investments accounted for 36.3 per cent of the entire equity portfolio.

Furthermore, the largest direct listed equity exposures are presented in the table Ten Largest Direct Listed Equity Investments, Sampo Group, 31 December 2016.

Ten Largest Direct Listed Equity Investments

Sampo Group, 31 December 2016

Top 10 listed equity investments	Total fair value, EURm	% of total direct equity investments
Nobia	157	7.4%
Veidekke	127	5.9%
Volvo	110	5.1%
Amer Sports	96	4.5%
Hennes & Mauritz	94	4.4%
ABB	89	4.1%
UPM-Kymmene	86	4.0%
Sandvik	65	3.0%
TeliaSonera	62	2.9%
Husqvarna	60	2.8%
Total top 10 exposures	946	44.3%
Other direct equity investments	1,190	55.7%
Total direct equity investments	2,136	100.0%

In addition, Sampo Group's largest listed equity holdings are disclosed in the Notes to the Financial Statements ([Note 41](#)).

The largest exposures by individual issuers and counterparties are presented in the table Largest Exposures by Issuer and by Asset Class, Sampo Group, 31 December 2016.

Largest Exposures by Issuer and Asset Class

Sampo Group, 31 December 2016

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	2,307	11%	1,214	1,081	0	652	109	320	0	12
Danske Bank	1,060	5%	645	405	0	101	255	49	0	9
Skandinaviska Enskilda Banken	1,021	5%	553	466	0	235	159	72	0	2
Svenska Handelsbanken	872	4%	150	721	0	620	86	15	0	0
DnB	599	3%	0	599	0	252	234	114	0	0
Sweden	557	3%	0	557	0	0	557	0	0	0
BNP Paribas	549	3%	477	72	0	0	62	10	0	0
Swedbank	520	3%	1	518	0	295	211	13	0	0
Norway	411	2%	44	367	0	0	257	110	0	0
Landshypotek	216	1%	0	216	0	194	0	22	0	0
Total Top 10 Exposures	8,110	39%	3,085	5,002	0	2,348	1,930	724	0	23
Other	12,617	61%								
Total investment assets	20,727	100%								

Counterparty Default Risks

Counterparty Default Risk ("Counterparty Risk") is one type of consequential risk, which Sampo Group is exposed to through its activities. In Sampo Group 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. Also, the risk exposures arising from other receivables related to commercial transactions are minor in Sampo Group.

Risk definitions related to counterparty default risks may be found in [Appendix 2 \(Risk Definitions\)](#).

Reinsurance Counterparty Risk

Default risk related to reinsurance counterparties mainly concerns If P&C, as the use of reinsurance in Mandatum Life is relatively limited.

In If P&C reinsurance is used regularly and If P&C have many 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 2016 per rating category is presented in the table Reinsurance Recoverables and Pooled Solutions, If P&C, 31 December 2016 and 31 December 2015.

Reinsurance Recoverables and Pooled Solutions

If P&C, 31 December 2016 and 31 December 2015

Rating	31 Dec 2016		31 Dec 2015	
	Total EURm	% of total	Total EURm	% of total
AAA	0	0	0	0%
AA+ - A-	102	41%	97	39%
BBB+ - BBB-	2	1%	4	2%
BB+ - C	0	0	0	0%
D	0	0	0	0%
Non-rated	2	1%	2	1%
Captives and statutory pool solutions	140	57%	143	58%
Total	246	100%	246	100%

Because the recoverables and pooled solutions reported above are not covered by collaterals the whole amount is exposed to counterparty risk. Hence, the reinsurance counterparties are selected carefully and their default risks are monitored continuously.

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 168 million, representing 68 per cent of the total reinsurance recoverables. If P&C's largest individual reinsurer is Munich Re (AA-). They account for 18 per cent of the total reinsurance recoverables.

The cost of risk transfer related to the reinsurance recoverables and pooled solutions amounted to EUR 55.5 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 Sampo Group, the default risk of derivative counterparties is a by-product of managing market risks. This is the case especially in Sampo plc and Mandatum Life which are frequent users of long-term interest rate derivatives in addition to FX-forwards and options. 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 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 centralized clearing parties.

ALM Risks

At the total balance sheet level, ALM risks contribute considerably to economic values of insurance liabilities, market value of assets, risks and capital need. ALM risks and exposures are analyzed actively and the risks are taken into account when making capitalization decisions, managing investments and developing insurance products. According to Sampo's

definition ALM risks also include liquidity risk and other risks that may cumulate at the balance sheet level.

Risk definitions related to ALM risks may be found in [Appendix 2 \(Risk Definitions\)](#).

Principles of Asset and Liability Management

In Sampo Group, insurance liabilities are the starting point for investment management. Insurance liabilities are modelled and analyzed to form an understanding of their expected future cash flows and their sensitivities to changes in factors such as inflation, interest rates and foreign exchange rates.

The solvency position and risk appetite define the general capacity and willingness for risk taking. The

stronger the solvency position and the higher the risk appetite, the more the investment portfolio can potentially differentiate from a portfolio replicating cash flows of insurance liabilities.

Rating targets and regulatory requirements are major external factors affecting market and liquidity risk taking in general at the balance sheet level, and specifically at the investment portfolio level.

ALM in If P&C

The ALM risk in If P&C is managed in accordance with Sampo Group's principles. ALM is taken into account through the risk appetite framework and is governed by If P&C's Investment Policies.

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 an 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 (technical provisions) 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, 2016 in the [Non-life Underwriting Risks](#) section.

To maintain the ALM risk within the overall risk appetite, the cash flows of insurance liabilities (technical provisions) are matched by investing in fixed income instruments and by using currency derivatives.

ALM in Mandatum Life

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.

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. 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 of Balance Sheet

Sampo Group is negatively affected when rates are decreasing or staying at low levels, because the duration of liabilities in Sampo Group companies is longer than the duration of assets. If P&C has successfully decreased its combined ratio over the years to counteract falling interest rates. Mandatum

Life's strategic balancing factor has been the increasing proportion of non-interest rate sensitive Wealth-management business. At Group level interest rate risks have been partly mitigated by having the major portion of Sampo's debt tied to short term interest rates.

Liquidity Risks

Liquidity risk is relatively immaterial in Sampo Group's businesses because liability cash flows in most lines of business are fairly stable and predictable and an adequate share of the investment assets are in short-term money market instruments and liquid government bonds. Sampo Group companies manage the liquidity risk on a daily basis. In addition both the parent company's and the subsidiaries' creditworthiness and reputation are proactively managed.

In Sampo Group, liquidity risk is managed by the legal entities, which are responsible for liquidity planning and maintaining adequate liquidity buffers. Liquidity risk is monitored based on the expected cash flows resulting from assets, liabilities and other business. In the subsidiaries, the adequacy of liquidity buffers is dependent on the underwriting cash flows. In the parent company, the adequacy of liquidity buffers is dependent also on potential strategic arrangements. A high liquidity is generally preferred. At the end of 2016, the liquidity position in each legal entity was in accordance with internal requirements.

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 analyzed and reported to the ORSA (Own Risk Solvency Assessment) Committee.

In Mandatum Life, a large change in surrender rates could influence the liquidity situation. However, 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, If P&C, Mandatum Life and Sampo plc, 31 December 2016. 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, Mandatum Life and Sampo plc, 31 December 2016

EURm	Carrying amount total			Cash flows						
	Carrying amount total	Carrying amount without contractual maturity	Carrying amount with contractual maturity	2017	2018	2019	2020	2021	2022-2031	2032-
If P&C										
Financial assets	13,578	1,988	11,590	1,953	1,553	2,287	2,284	2,091	778	0
of which interest rate swaps	0	0	0	0	0	0	0	0	0	0
Financial liabilities	1,076	0	1,076	-68	-109	-15	-15	-335	0	0
of which interest rate swaps	4	0	4	-1	-1	-1	0	0	0	0
Net technical provisions	9,143	0	9,143	-3,109	-1,107	-680	-506	-427	-2,105	-1,825
Mandatum Life										
Financial assets	6,398	3,191	3,208	601	628	383	863	331	574	14
of which interest rate swaps	1	0	1	0	0	0	0	0	0	0
Financial liabilities	142	0	142	-15	-4	-5	-5	-5	-60	-215
of which interest rate swaps	0	0	0	0	0	0	0	0	0	0
Net technical provisions	4,291	0	4,291	-429	-397	-368	-342	-316	-2,212	-1,734
Sampo plc										
Financial assets	2,271	1,588	684	89	130	189	48	245	60	214
of which interest rate swaps	12	0	12	1	10	1	4	0	0	0
Financial liabilities	3,551	0	3,551	-1,217	-265	-552	-361	-540	-765	0
of which interest rate swaps	0	0	0	0	0	0	0	0	0	0

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. In the investment assets of Mandatum Life, the investments of the Baltic subsidiary are included in the carrying amount but excluded from the cash flows.

Sampo Group has a relatively low amount of financial liabilities and thus Group's respective refinancing risk is relatively small. During 2016, Sampo issued two public bonds amounting to EUR 1.05 billion and several private placements targeted to Mandatum Life's retail clients. It also issued two tranches of subordinated liabilities amounting to SEK 2 billion in 2016. Sampo Group companies have business relationships with several creditworthy counterparties

which mitigate the risk that Group is not able to enter into reinsurance or derivative transactions when needed.

Since there is no unambiguous technique to quantify the capital need for liquidity risk, it is not directly taken into account in the capital need estimates. Thus only the interest rate risk part of the ALM risks is accounted for in the economic capital framework.

Operational Risks

The effects of operational risks have their general causes in external and internal drivers. For example the operational risks may realize as a result of inadequate or failed processes or systems, from personnel or from external events (for further details, see [Appendix 2, Risk Definitions - Operational Risks](#)). Group companies have their own specific risk sources which are causes of events that may have negative impacts on different processes, personnel or fixed assets.

In Sampo Group, the parent company sets the following goals of operational risk management for its subsidiaries:

- To simultaneously ensure the efficiency and the quality of operations
- To ensure that operations are compliant with laws and regulations
- To ensure the continuity of business operations in exceptional circumstances.

Each company is responsible for arranging its operational risk management in line with the above mentioned goals, while also taking into account the specific features of its business activities.

If P&C

The continuity of operational risk management in If P&C is secured through the Operational Risk Committee ("ORC"). The task of the ORC is to provide opinions, advice and recommendations to the committee's chairman. The ORC is responsible for preparing a comprehensive overview of the operational risk status in If P&C. The status is based on the self-assessments performed by the organization, reported incidents and other additional risk information. External operational risks are identified in the strategy risk process which is performed on a yearly basis, during which the most important trends affecting the insurance industry are identified and their effects on If P&C are assessed. The chairman of the ORC reports a forward looking assessment of the operational risk status to the Own Risk Solvency Assessment Committee (ORSAC). The chairman also proposes changes to policies and instructions.

The line organization and corporate functions have the responsibility to identify, assess, monitor and manage their operational risks. Risk identification and assessments are performed by the line organization twice a year and by corporate functions yearly. Identified risks are assessed from a probability and impact perspective.

Incident reporting and analysis are managed differently depending on the type of incident. All employees are required to report incidents via the intranet.

In order to manage operational risks, If P&C has issued a number of different steering documents: Operational Risk Policy, Business Continuity Policy, Security Policy, Outsourcing Policy, Complaints Handling Policy, Claims Handling Policy and other steering documents related to different parts of the organization. These documents are reviewed and updated at least annually.

A number of internal governing documents form the basis for steering compliance activities, including compliance risk: Sampo Group Compliance Principles, Compliance Policy, Policy on Conflicts of Interest, Internal Control Policy, Risk Management Policy, Compliance Plan, Working Routines for the Compliance Function and the Instruction for Compliance coordinators. The documents are reviewed and updated annually or as necessary.

Mandatum Life

The objective of operational risk management in Mandatum Life is to recognize the risks proactively, manage the risks efficiently and to minimize the potential effects of realized risks in as cost-effective a manner as possible.

Business units are responsible for the identification, assessment and management of their own operational risks, including organizing adequate internal controls. The Operational Risk Committee (ORC) monitors and coordinates risk management issues regarding operational risks within Mandatum Life, such as policies and recommendations concerning operational risk management. The committee ensures that risks are identified and internal control and risk management have been organized in a proper way. The committee also analyses deviations from operational risk management policies and monitors operational risks identified in the self-assessments as well as in occurred incidents. The committee meets three times a year at a minimum. Significant observations on operational risks are submitted to the Risk Management Committee ("RMC") and the Board of Directors on a quarterly basis.

The Operational Risk Committee analyzes and handles operational risks, e.g. in relation to new products and services, changes in processes and risks as well as realized operational risk incidents. Significant observations are reported to the Risk Management Committee and to the Board of Directors quarterly. The ORC is also responsible for maintaining and updating the continuity and preparedness plans as well as the Internal Control Policy.

In order to limit operational risks, Mandatum Life has approved a number of policies including e.g. Internal Control Policy, Compliance Policy, Security Policies, Continuity Plan, Procurement and Outsourcing Policy, Complaints Handling Policy and a number of other policies related to ongoing operative activities. Deviations against different policies are followed up independently in each business unit and are reported to the Compliance Officer and the ORC.

The internal control system aims at preventing and identifying negative incidents and minimizing their impact. In addition, would there be an operational risk event or a near miss, this must be analyzed and reported to ORC.

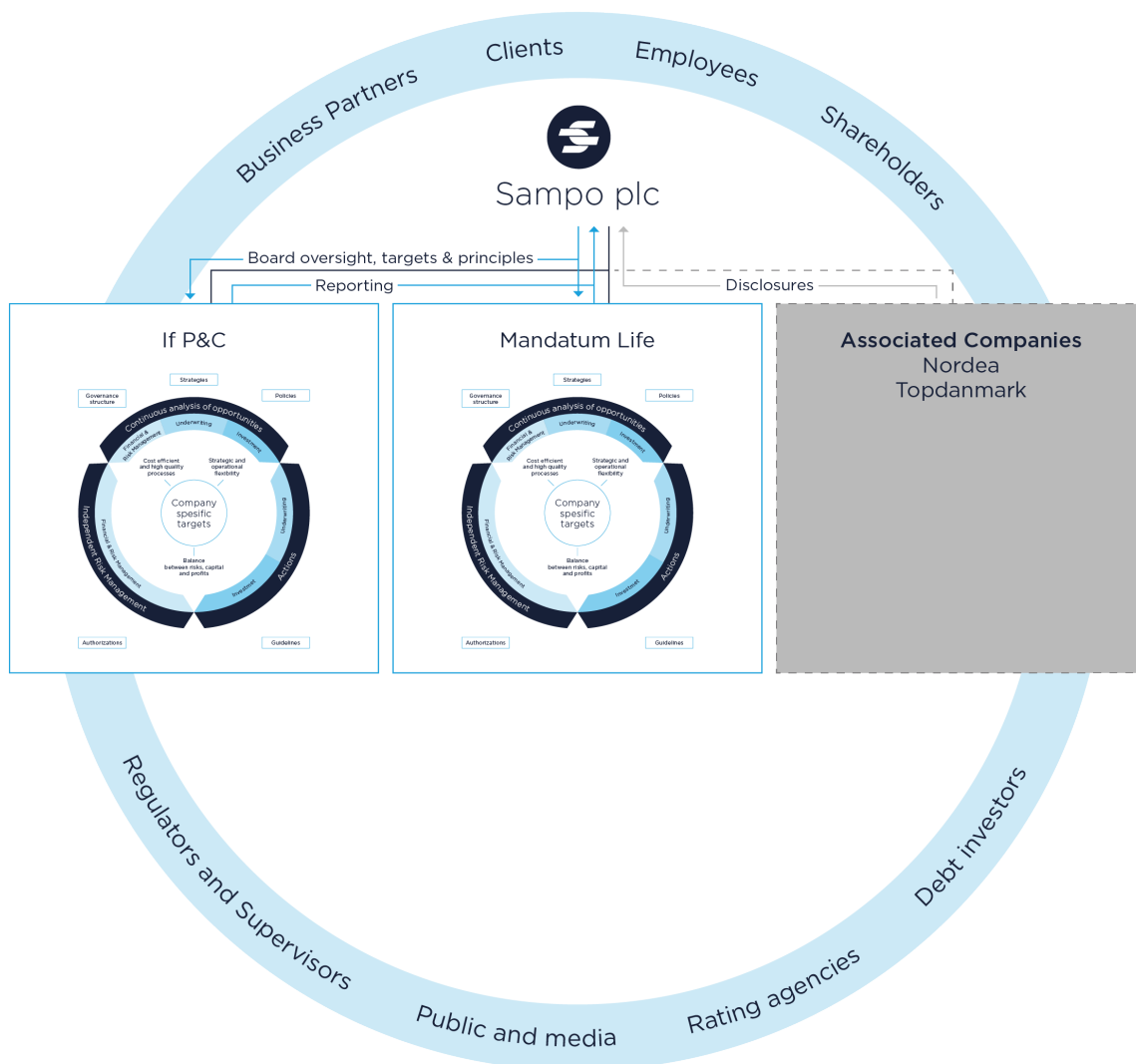
Appendices

Appendix 1: Sampo Group Steering Framework and Risk Management Process

When Sampo Group is organizing its business and risk management activities, clear responsibilities and simple and flat operational structures are the fundamental principles. The responsibilities and

operational structures, as illustrated in the figure Sampo Group's Steering Framework are described in the following paragraphs.

Sampo Group's Steering Framework



Parent Company's Guidance

Group's parent company steers the subsidiaries by setting targets for their capitalization and return on equity ("RoE") and by defining the main preconditions for the subsidiaries' operations in the form of the group-wide principles.

Target Setting: The Board of Directors of Sampo plc decides on the subsidiaries' return on equity targets which are currently 17.5 per cent for both If P&C and Mandatum Life. In addition, If P&C has a long-term target of maintaining the combined ratio below 95 per cent.

The parent company assesses the adequate level of capitalization and the suitability of the capital structure as described in the section "[Capitalization at the Sub-Group Level](#)". Based on this analysis, the parent company estimates the amount of dividends distributed by the subsidiaries to the parent company. In Sampo Group, the excess capital from an operational point of view is held by the parent company which capitalizes the subsidiaries if needed.

The Board of Directors of Sampo plc decides on the main guidelines governing the subsidiaries' business activities and risk management. The most significant of these guidelines are the Code of Conduct, Risk Management Principles, Remuneration Principles and Compliance Principles. There are also further guidelines which are followed in order to prevent reputational and compliance risks, for example the Disclosure Policy.

Moreover, Sampo plc's Board of Directors' decisions and thereby also the guidance given to subsidiaries may be impacted by the external regulatory environment and expectations of different stakeholders on Sampo Group's operations. Further information on Sampo Group's relations with its stakeholders is available within the Code of Conduct at www.sampo.com/steeringsystem.

Subsidiaries' Activities and Risk Management

Subsidiaries organize their activities independently, taking into account the specific characteristics of their business operations and the guidance from the parent company relating to targets, capitalization and group-wide principles. The stakeholders' expectations and external regulations also have a direct effect on the subsidiaries' activities.

Sampo Group's subsidiaries decide independently on the governance structure of their operations. The executive management of the subsidiaries have extensive experience in the insurance industry, as well as in financial and risk management. The members of different committees and governing bodies represent expertise related to business and other functions. The subsidiaries' operations are monitored by the different governing bodies and ultimately by the Boards of Directors whose members are mainly in senior management positions in Sampo.

Since only the main guidelines are prepared by the parent company, the subsidiaries' management have the power and responsibility to incorporate the specific characteristics of their own operations into the company specific policies, limits, authorizations and guidelines.

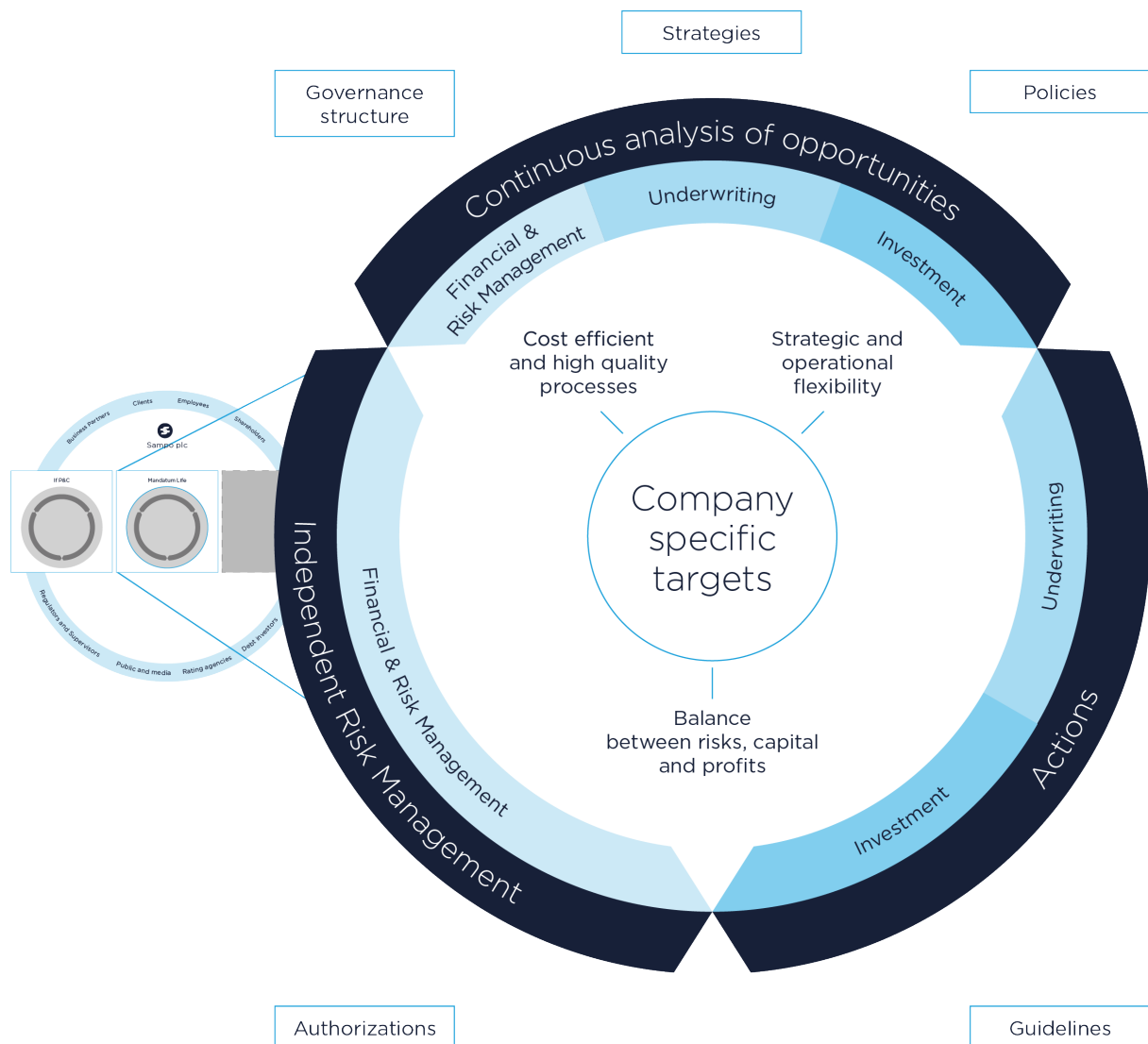
At the operative level, the subsidiaries focus on the effective execution of insurance operations and financial and risk management activities. Investments are managed according to the Investment Policies which are approved by the Boards of Directors of the respective subsidiaries. The parent company leads day-to-day management of investments; facilitates simultaneous effective execution of the subsidiaries' investment policies; and maintains group-wide oversight of the investment portfolios.

The risk management process consists of continuous activities that are partly the responsibility of the personnel involved in business activities and partly the responsibility of independent risk management specialists. Although the responsibilities of business lines and independent risk management are clearly segregated in Sampo Group, these functions are in continuous dialogue with each other. In Internal Control Policy Sampo Group has defined the roles and responsibilities of different internal stakeholders.

Parties independent of business activities are responsible for the risk management governance framework, risk policies, risk limits and authorizations which form the structure that sets the limits for business and investment units' risk taking as well as principles for risk monitoring. These structures are one prerequisite for the risk management process; they reflect capital adequacy targets and the risk appetite in general.

The figure Company Level Financial and Risk Management Process illustrates the (i) prerequisites, (ii) tasks together with the responsible functions and (iii) targets of company level risk management.

Company Level Financial and Risk Management Process



The central prerequisites for facilitating successful risk management include the following:

- Risk management governance structure and authorizations (see [Risk Governance](#) section) and clear division of responsibilities between business lines and independent functions
- Companies' own risk policies and more detailed instructions related to risk management
- Prudent valuation, risk measurement and reporting procedures.

The tasks included in the risk management process can be classified as follows:

Independent Risk Management

Financial and risk management functions are explicitly responsible for preparing the above prerequisites of risk management. Operationally they are responsible for independent measurement and control, including the monitoring of operations in general as well as profitability, risk and capitalization calculations. The following items are examples of these responsibilities:

- Detailed reporting on risks to subsidiaries' and Sampo's Risk Committees and the Boards of Directors
- Internal reporting on Capital need and actual available Capital at least on a quarterly basis
- Internal reporting on regulatory and rating agency capital charges and capital positions on a quarterly basis

- Disclosure of internal and regulatory capitalization figures quarterly.

Continuous Analysis of Opportunities and Risks

Both the business lines and the financial and risk management functions are active in supporting the business with continuous analysis and assessment of opportunities. This can be seen as a separate phase in the risk management process as the insurance and investment business units assess different business opportunities, especially their risk return ratios, on a daily basis. In the financial and risk management functions, on the other hand, a considerable amount of time is spent on risk assessment and capital planning. This assessment of opportunities generates, for example, the following outputs:

- Identification of business opportunities (e.g. product and service development and investment opportunities) and analysis of respective earnings potential and capital consumption
- Intra-group and external dividend plans
- Hybrid and senior debt issuance initiatives.

Actions

Actions, i.e. transactions representing the actual insurance and investment operations are performed in accordance with the given authorizations, risk policies and other instructions. These actions are the responsibility of business and centralized functions such as the investment unit. Activities related to capitalization and liquidity positions are included in this part of the process. In Sampo Group, proactive actions to manage profitability, risks and capital are seen as the most important phase of the risk and capital management process. Hence, risk policies, limits and decision making authorizations, together with profitability targets, are set up in a way that they facilitate business and investment units to take carefully considered risks. Examples of the actions are as follows:

- Pricing of insurance policies and execution of investment asset transactions
- Dividend payments, share buy-backs, hybrid issuances and senior debt issuances
- Derivative and reinsurance transactions
- Business acquisitions and divestments.

High quality execution of the above tasks contributes to the achievement of the three central targets of the risk management process:

Balance Between Risks, Capital and Earnings

- The risks affecting profitability as well as other material risks are identified, assessed and analyzed.
- Capitalization is adequate in terms of risks inherent in business activities and strategic risks, taking into account the expected profitability of the businesses.
- Risk bearing capacity is allocated to different business areas in accordance with the strategy.
- Underwriting risks are priced to reflect their inherent risk levels, expected returns from investment activities are in balance with their risks, and consequential risks are mitigated sufficiently.

Cost Efficient and High Quality Processes

- Client service processes and internal operative processes are cost efficient and of high quality.
- Decision making is based on accurate, adequate and timely information.
- Continuity of operations is ensured and in the case of a discontinuity event, recovery is fast and comprehensive.

Strategic and Operational Flexibility

- External risk drivers and potential strategic risks are identified and the company is in a good position, in terms of capital structure and management skills, to react to changes in the business environment.
- Corporate structure, knowledge and processes in the companies facilitate effective implementation of changes.

When the above targets are met, risk management contributes positively to return on equity and mitigates the yearly fluctuations in profitability. The risk management process is therefore considered to be one of the contributors in creating value for the shareholders of Sampo.

Parent Company's Oversight and Activities

Sampo reviews Group as a business portfolio and is active especially in matters related to Group's capitalization and risks as well as related to the parent company's capital structure and liquidity.

Sampo reviews quarterly the performance of Sampo Group both on a company level and on a Group level based on the reporting provided by the subsidiaries and the associated companies. The information on associated companies is, however, based on publicly

available material and is therefore less detailed. Reporting on the subsidiaries' performance to the Board of Directors and Audit Committee ("AC") of Sampo is based mainly on the reporting produced by the subsidiaries. The reporting concentrates on the balance between risks, capitalization and profitability. The parent company is responsible for reporting on its own activities.

At group level, the central focus areas are potential concentrations arising from Group companies' operations as well as Group's capitalization and the parent company's ability to generate liquidity. The parent company is also projecting and analyzing Group companies' profitability, risks and capitalization with uniform scenarios to have company specific forecasts that are additive at group level.

Based on the above sub-group level work and Sampo Group level internal work Sampo Group prepare an annual Single Own Risk and Solvency Assessment document ("Single ORSA report") that is supplied to Sampo Group's main supervisor, the Finnish FSA. The Single ORSA report has virtually same structure and contents as quarterly Audit Committee reporting. The only substance difference is the addition of Group-wide solvency forecasts, which are not normally part of the quarterly reporting.

Based on both the company and group level information, the Board of Directors of Sampo decides on Group's capitalization as well as sets the guidelines on the parent company's capital structure and liquidity reserve. The underlying objective for Sampo is to

maintain a prudent capital structure and adequate liquidity in order to be able to arrange financing for strategic projects if needed. Strong liquidity and the ability to acquire financing are essential factors in maintaining Sampo Group's strategic flexibility.

Risk Governance

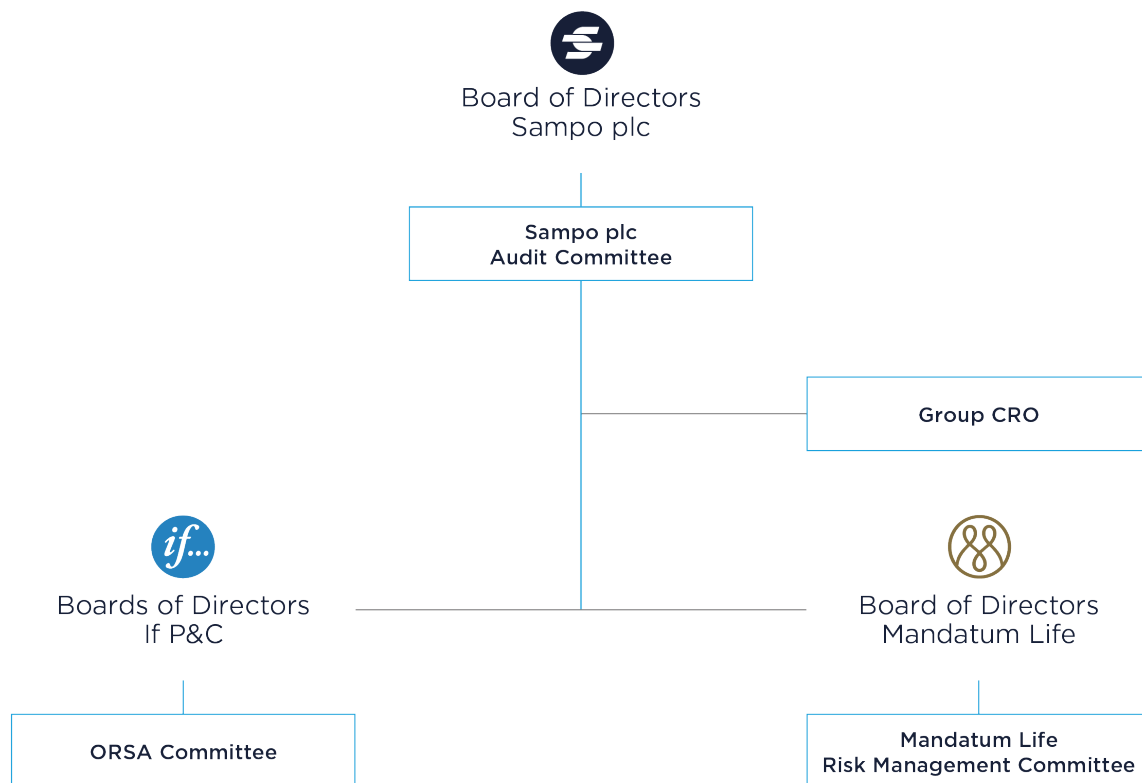
This section describes the governance framework of Sampo Group and its subsidiaries from a risk management perspective. A more detailed description of Sampo Group's corporate governance and internal control system is included in the [Corporate Governance](#) section.

Risk Governance at Group Level

The Board of Directors of Sampo is responsible for ensuring that Group's risks are properly managed and controlled. The Board of Directors of Sampo defines financial and capitalization targets for the subsidiaries and approves group level principles which steer the subsidiaries' activities. The risk exposures and capitalization reports of the subsidiaries are consolidated at group level on a quarterly basis and reported to the Board and to the Audit Committee of Sampo.

The reporting lines of different governing bodies at group level are described in the figure Risk Governance in Sampo Group.

Risk Governance in Sampo Group



The Audit Committee is responsible, on behalf of the Board of Directors, for the preparation of Sampo Group's risk management principles and other related guidelines. The AC shall ensure that the operations are in compliance with these guidelines, control Sampo Group's risks and risk concentrations as well as control the quality and scope of risk management in the Group companies. The committee shall also monitor the implementation of risk policies, capitalization and the development of risks and profit. At least three members of the AC must be elected from members of the Board who do not hold management positions in Sampo Group and are independent of the company. The AC meets on a quarterly basis.

The Group Chief Risk Officer ("CRO") is responsible for the appropriateness of risk management at Group level. The CRO's responsibility is to monitor Sampo Group's aggregated risk exposure as a whole and coordinate and monitor company specific and group level risk management.

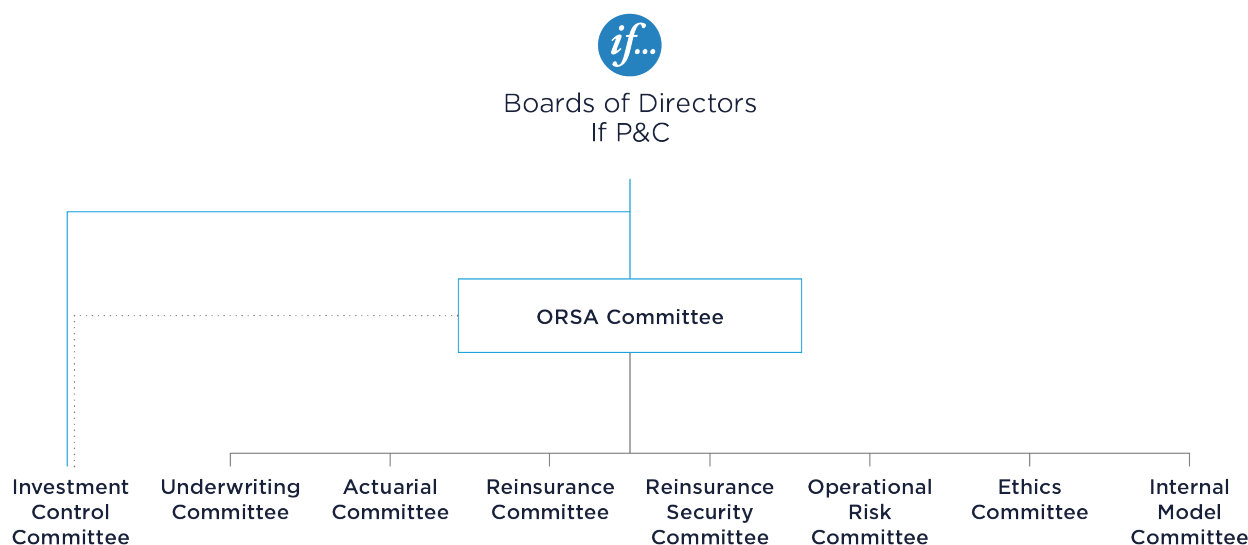
The Boards of Directors of If P&C and Mandatum Life are the ultimate decision making bodies of the

respective companies and have the overall responsibility for the risk management process in If P&C and Mandatum Life respectively. The Boards of Directors appoint the If P&C ORSA Committee and the Mandatum Life Risk Management Committee, and are responsible for identifying any need to change the policies, principles and instructions related to risk management.

Risk Governance in If P&C

The main risk steering mechanism used by the Boards of Directors is the policy framework. As part of their responsibilities, the Boards of Directors approve the Risk Management Policy and the other risk steering documents; receive risk reports from the Chief Risk Officer and the Chief Executive Officers ("CEOs"); take an active part in the forward looking risk and solvency assessment process; and ensure that the management and follow-up of risks is satisfactory and effective. The reporting lines of different governing bodies in If P&C are described in the figure Risk Governance in If P&C.

Risk Governance in If P&C



The Own Risk and Solvency Assessment Committee assists the Chief Executive Officers of If P&C in fulfilling their responsibilities to oversee the risk management process. The ORSAC reviews reporting from If P&C's other committees within the Risk Management System as well as reporting from both corporate functions and the line organization. Furthermore, the ORSAC monitors If P&C's short-term and long-term aggregated risk profile to ensure it is aligned with its risk strategy and capital adequacy requirements. The Risk Management function is responsible for coordinating the risk management activities on behalf of the Boards of Directors and the CEOs.

The responsibility to identify, evaluate, control and manage risks lies within the line organization. There are separate committees in place for key risk areas which have the responsibility of monitoring the management and control risks to ensure compliance with the instructions of the Boards of Directors. The risk committees in If P&C do not have a decision mandate.

There are policies in place for each risk area which specify restrictions and limits chosen to reflect and ensure that the risk level is constantly in compliance with the overall risk appetite and capital adequacy constraints of If P&C. The committees also monitor the effectiveness of policies and give input to changes and updates if needed.

In addition to the risk specific committees, there are two other committees included in the Risk Governance structure. Their responsibilities are described as follows:

- The Ethics Committee ("EC") discusses and coordinates ethical issues in If P&C. The committee gives recommendations on ethical issues and proposes changes to the Ethics Policy. The Chairman is responsible for the reporting of ethics risk and other issues dealt with by the committee.
- The Internal Model Committee's tasks are to identify sources for potential model changes and to give its opinion to the Chairman on the assessment and classification of potential changes and on further validation activities or internal model development. In addition to the tasks above, the committee discusses and analyzes information related to the internal model from other committees as well as monitors the status of internal model use and development activities.

If P&C has also a Compliance Committee (CC), which is an advisory body for the Chief Compliance Officer regarding compliance issues. The task of the committee is to secure a comprehensive view of compliance risk and activities in If P&C.

Risk Governance in Mandatum Life

In Mandatum Life the Board of Directors is responsible for risk management and the adequacy of internal control. The Board of Directors annually approves the Risk Management Plan, Investment Policy and other risk management and internal control instructions.

The Managing Director of Mandatum Life has the overall responsibility for risk management according to the Board of Directors' instructions. The Managing Director is the Chairman of the Risk Management Committee which coordinates and monitors all risks in

Mandatum Life. The risks are divided into groups, the main groups being insurance, market, operational, legal and compliance risks as well as business and reputation risks. Each risk area has its own specialized committee or unit and a responsible person in the RMC.

The reporting lines of the main governing bodies in Mandatum Life are described in the figure Risk Governance in Mandatum Life.

Risk Governance in Mandatum Life



In addition to the risk specific committees, the duties related to compliance and risk management of the Baltic subsidiary have been organized as follows:

- The Legal and Compliance Unit takes care of compliance matters with the Head of the Unit being a member of the Risk Management Committee.

- The Baltic subsidiary has its own risk management procedures. All major incidents are also reported to Mandatum Life's Risk Management Committee.
- Internal Audit, through its audit recommendations, has a role to ensure that adequate internal controls are in place and provides Internal Audit's annual review to the Board of Directors.

Appendix 2: Risk Definitions

Underwriting Risks

In general, the book value of insurance liabilities (technical provisions) and economic value of insurance liabilities are dependent on (i) the size and timing of future claims payments including expenses and (ii) the interest rates used to discount these claims payments to the current date.

The first component is a source of underwriting risk and the second component affects the interest rate risk in the balance sheet.

Underwriting risk can be generally defined as a change in the value of insurance liabilities caused by variance between the final costs for full contractual obligations and the assumed costs when these obligations were estimated. Hence, underwriting risk is realized as unexpected liability cash flows or unexpected change in the value of insurance liabilities when the pricing and provisioning assumptions on claims payments differ from the actual payments.

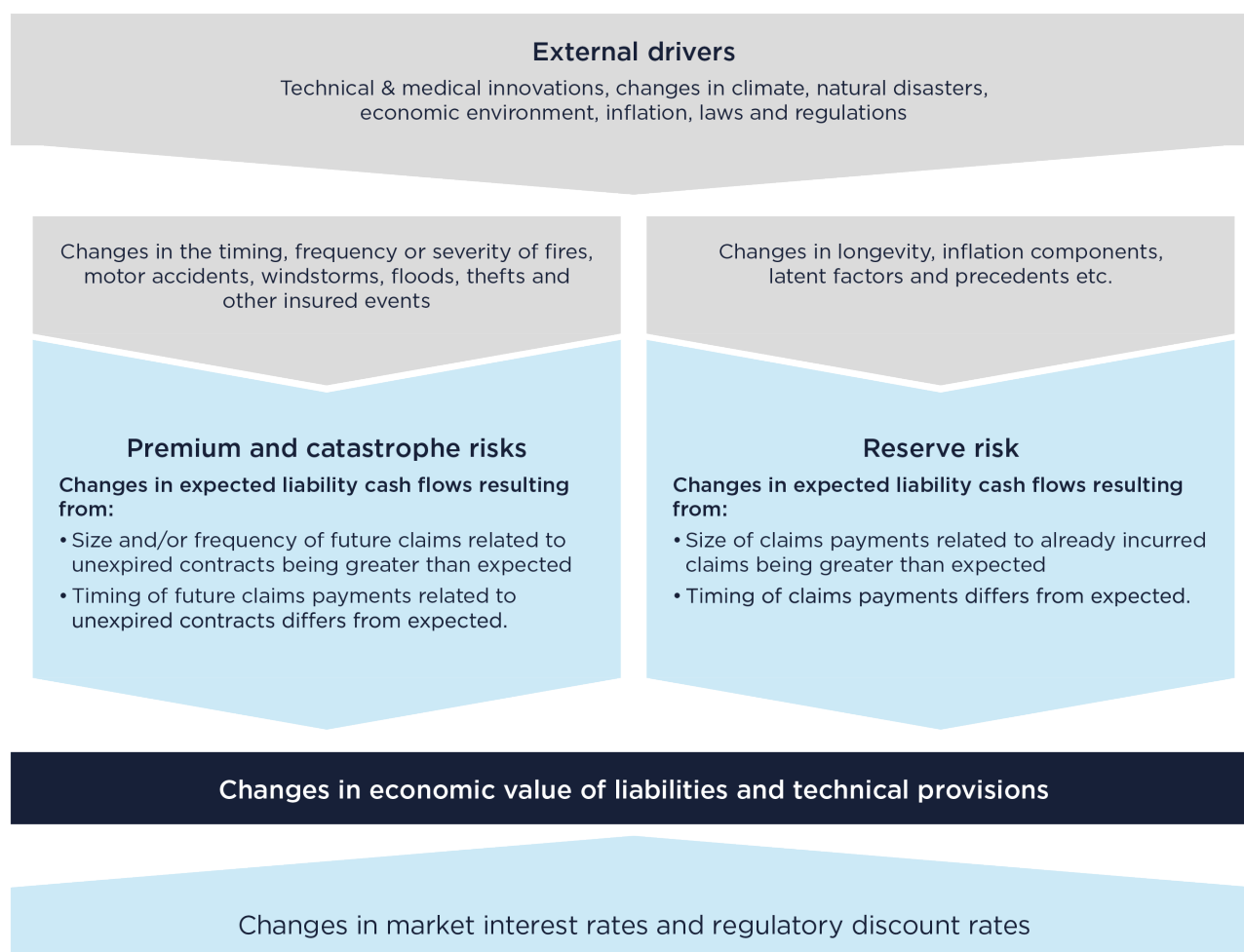
Technical provisions and the economic value of insurance liabilities always include a degree of uncertainty as they are based on estimates of the size,

timing and the frequency of future claim payments. The uncertainty is normally greater for new portfolios for which comprehensive run off statistics are not yet available, and for portfolios which include claims that take a long time to settle. Workers' compensation, motor other and motor third party liability, personal accident and liability insurance are examples of non-life products with the latter characteristics. In principle most of the life products have the latter characteristics embedded within them also. Life insurance policies are also exposed to the behavior of policyholders, because policyholders can change their premium payment intensity or cancel the existing policy.

Non-Life Insurance Underwriting Risks

Non-life insurance underwriting risks are often divided into premium and catastrophe risks and reserve risk in order to separate the risks related to future claims of current insurance contracts from already incurred claims. The division of non-life insurance underwriting risks is illustrated in the figure Non-life Insurance Underwriting Risks below.

Non-Life Insurance Underwriting Risks



Premium Risk and Catastrophe Risk

Premium risk relates to future claims resulting from expected insured events which have not occurred by the balance sheet date. The frequency, severity and timing of insured events and hence future claims may differ from those expected. As a result, the claims cost for future claims exceeds the expected level and there is a loss or adverse changes in the value of the insurance liabilities.

Catastrophe risk can be seen as an extreme case of premium risk. It is the risk of extreme or exceptional events, such as natural catastrophes where the pricing and setting of provisioning assumptions include significant uncertainty. These events may lead to significant deviations between the actual claims and the total expected claims resulting into a loss or adverse changes in the value of insurance liabilities.

Reserve Risk

Reserve risk relates to incurred claims, resulting from insured events which have occurred at or prior to the balance sheet date. The final amount, frequency and timing of claims payments may differ from those originally expected. As a result technical provisions are not sufficient to cover the cost for already incurred claims and there is a loss or adverse changes in the value of insurance liabilities.

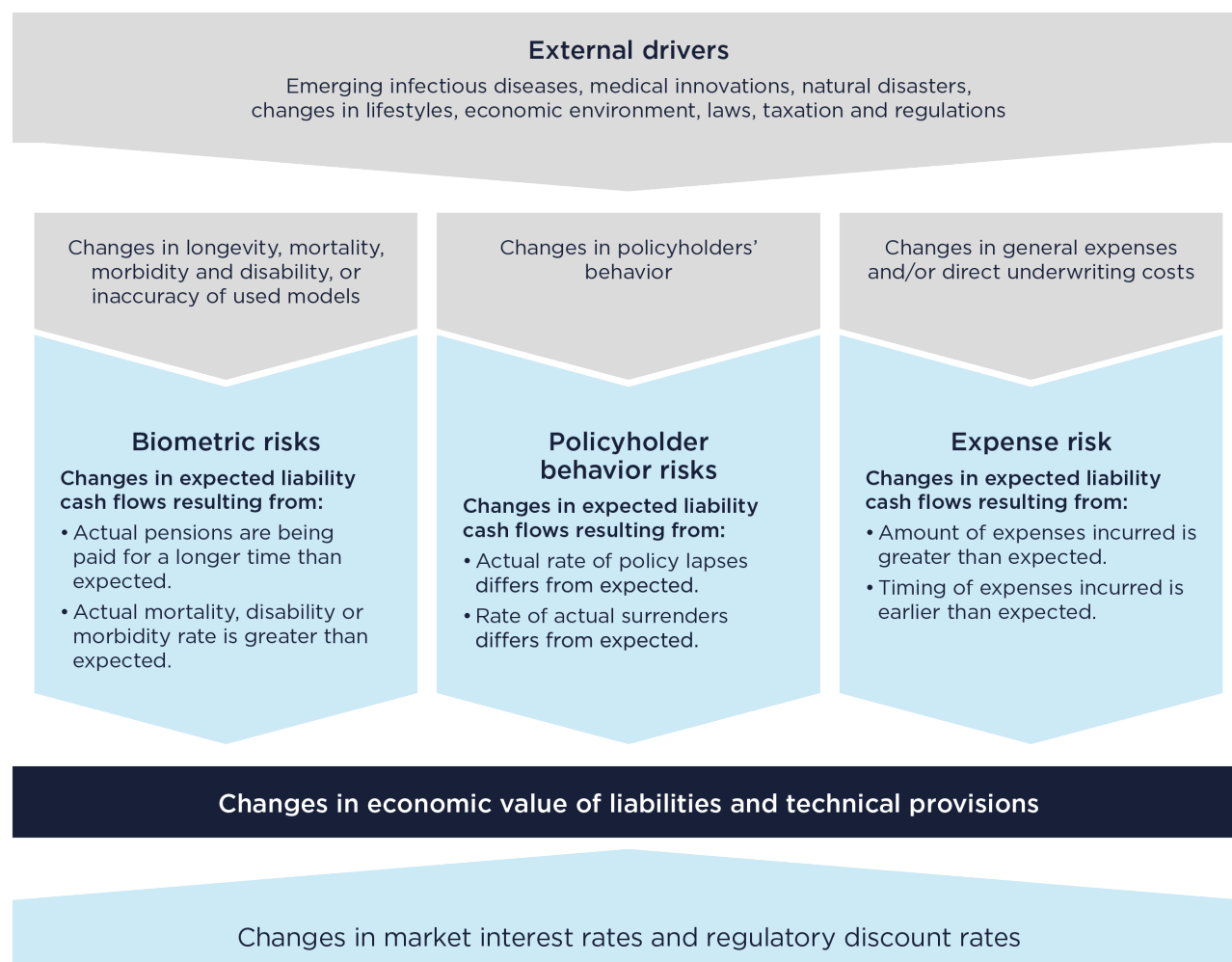
Reserve risk includes **revision** risk, which is defined as the risk of loss, or of adverse change in the value of insurance and reinsurance liabilities, resulting from fluctuations in the level, trend, or volatility of revision rates applied to annuities, due to changes in the legal environment or in the state of health of the person insured.

Life Insurance Underwriting Risks

The value of life insurance liabilities is sensitive to underwriting risks and interest rates. Underwriting risk

includes biometric, policyholder behavior and expense risks as presented in the figure Life Insurance Underwriting Risks below.

Life Insurance Underwriting Risks



Biometric Risks

Biometric risks refer to the risk that the company has to pay more mortality, disability or morbidity benefits than expected, or the company has to keep paying pension payments to the pension policy holders for a longer period (longevity risk) than expected originally when pricing the policy.

In life insurance, catastrophe events include – as in non-life insurance – rare single events or a series of events, usually over a short period of time and, albeit even less frequently, longer lasting events. When a low frequency, high severity event or series of single

events lead to a significant deviation in actual benefits and payments from the total expected payments, an extreme case of biometric risk (i.e. a catastrophe risk) has been realized.

Policyholder Behavior and Expense Risks

Policyholder behavior risks arise from the uncertainty related to the behavior of policyholders. The policyholders have the right to cease paying premiums (lapse risk) and may have a possibility to withdraw their policies (surrender risk).

The company is also exposed to expense risk, which arises from the fact that the timing and/or the amount of expenses incurred differs from those expected at the time of pricing. As a result, expense charges originally assumed may not be enough to cover the realized expenses.

Discount Rate Risk in Technical Provisions

Discount rate risk in technical provisions is the main risk affecting the adequacy of technical provisions. The guaranteed interest rate in policies is fixed for the whole policy period. Thus, if market interest rates and expected investment returns fall, technical provisions may have to be supplemented.

Investment Portfolio Market Risks

In general, market risks refer to fluctuations in the financial results and capital base caused by changes in market values of financial assets and liabilities, as well as by changes in the economic value of insurance liabilities.

Furthermore, market risks also include the risk of worsening market liquidity in terms of widening bid-ask spreads and the risk of unexpected changes in the repayment schedules of assets. In both cases the market values of financial instruments in investment portfolios may change.

The risks caused by changes in interest rates, foreign exchange rates and inflation together with a general

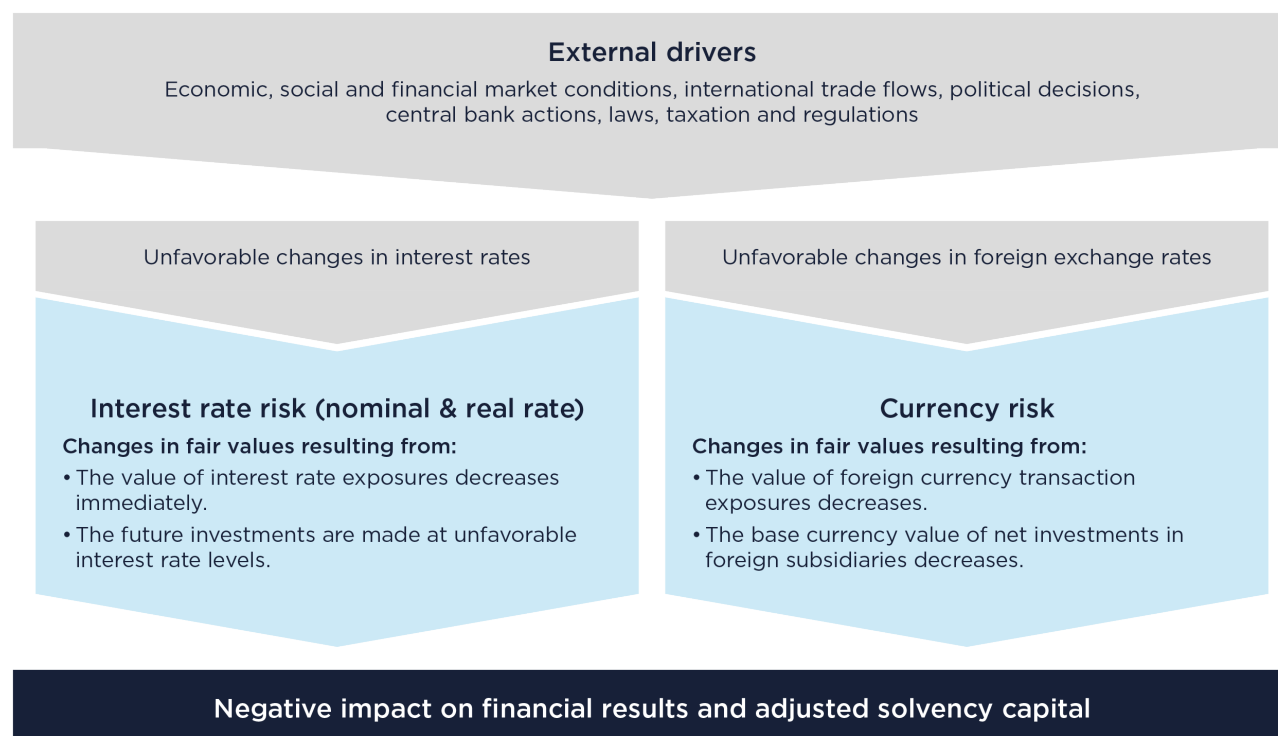
trend of credit spreads and equity prices are defined as **general market risks** and are managed by allocation limits and other risk limits.

The risk related to debt and equity instruments issued by a specific issuer can be defined as **issuer specific market risk** that is managed by issuer specific limits.

Interest Rate and Currency Risks

Many external drivers are affecting interest rates, inflation, inflation expectations and foreign exchange rates as illustrated by the following figure Interest Rate and Currency Risks.

Interest Rate and Currency Risks



Currency risk can be divided into transaction and translation risk. Transaction risk refers to currency risk arising from contractual cash flows in foreign currencies which are related to insurance activities, investment operations and foreign exchange

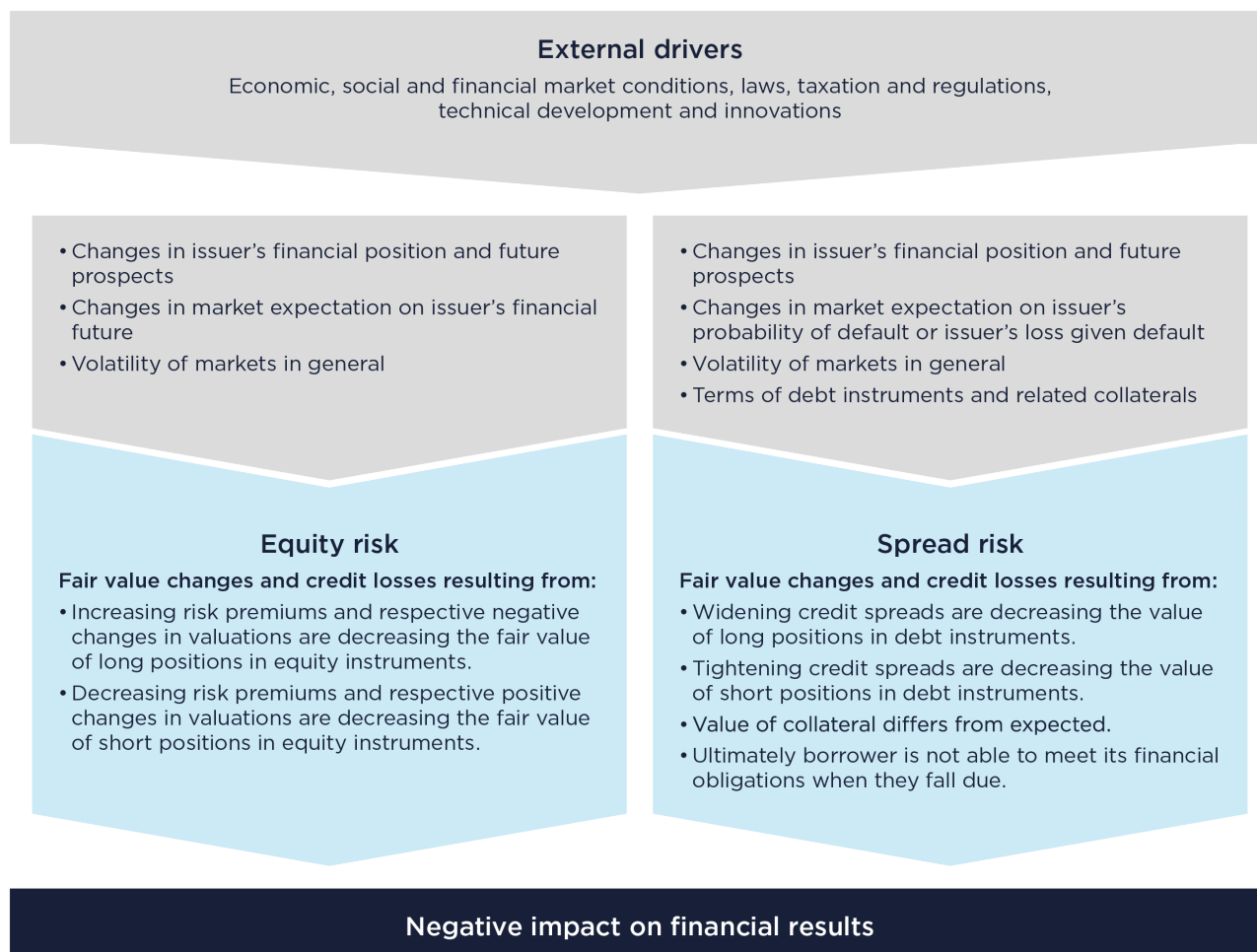
transactions. Translation risk refers to currency risk that may realize when balance sheet values or measures such as SCRs expressed in base currency are converted to other currencies.

Equity and Spread Risks

Sampo Group is exposed to price risk dependent on changes in equity prices and spreads arising from its fixed income and equity investments, as illustrated by

the below table Equity and Spread Risks. Equity price and spread movements are affected by general market trends and by risk factors that are related specifically to a certain issuer or a specific issue.

Equity and Spread Risks



Counterparty Default Risks

Credit risk by definition comprises default, spread and settlement risks. Default risk refers to losses arising from occurred defaults of contractual counterparties (counterparty risk) or debtors (issuer risk).

In the case of counterparty risk, the final loss depends on the positive mark-to-market value of derivatives or reinsurance recoverables at the time of default and on the recovery rate which is affected by collaterals.

In the case of issuer risk the final loss depends on the investor's holding of the security or deposit at the time of default, mitigated by the recovery rate.

Spread risk refers to losses resulting from changes in the credit spreads of debt instruments and credit

derivatives. Credit spreads are affected when the market's estimation of the probability of defaults is changing. In essence, credit spread is the market price of default risk which is priced into the market value of the debt instrument. Hence the debt instrument's value should lower before the event of default occurs. Because of these features, spread risk, including also the default risk of debt instruments, is categorized in Sampo Group under investment portfolio market risks.

Settlement risk realizes when one party fails to deliver the terms of a contract with another party at the time of settlement. Settlement risk can be the loss associated with default at settlement and any timing differences in settlement between the two parties. Settlement risks are effectively mitigated by using centralized settlement and clearing systems by Sampo Group companies.

Counterparty Default Risk

External drivers

Economic, social and financial market conditions, laws, taxation & regulations, technical development and innovations, natural disasters and other catastrophic events

- Changes in counterparty creditworthiness
- Terms of the instruments and collateral mechanisms
- Volatility of underlying instruments and collateral markets

Default risk of derivate counterparty

Credit losses resulting from:

- Rapid increase in value of net exposure
- Derivative counterparty is not able to post collateral or pay settlement amounts when they fall due
- Value of collateral differs from expected.

- Changes in counterparty creditworthiness
- Terms of the agreement

Default risk of reinsurance counterparty

Credit losses resulting from:

- Increase in reinsurance recoverables
- Reinsurer is not able to pay reinsurance recoverables when they fall due.

Negative impact on financial results

ALM Risks

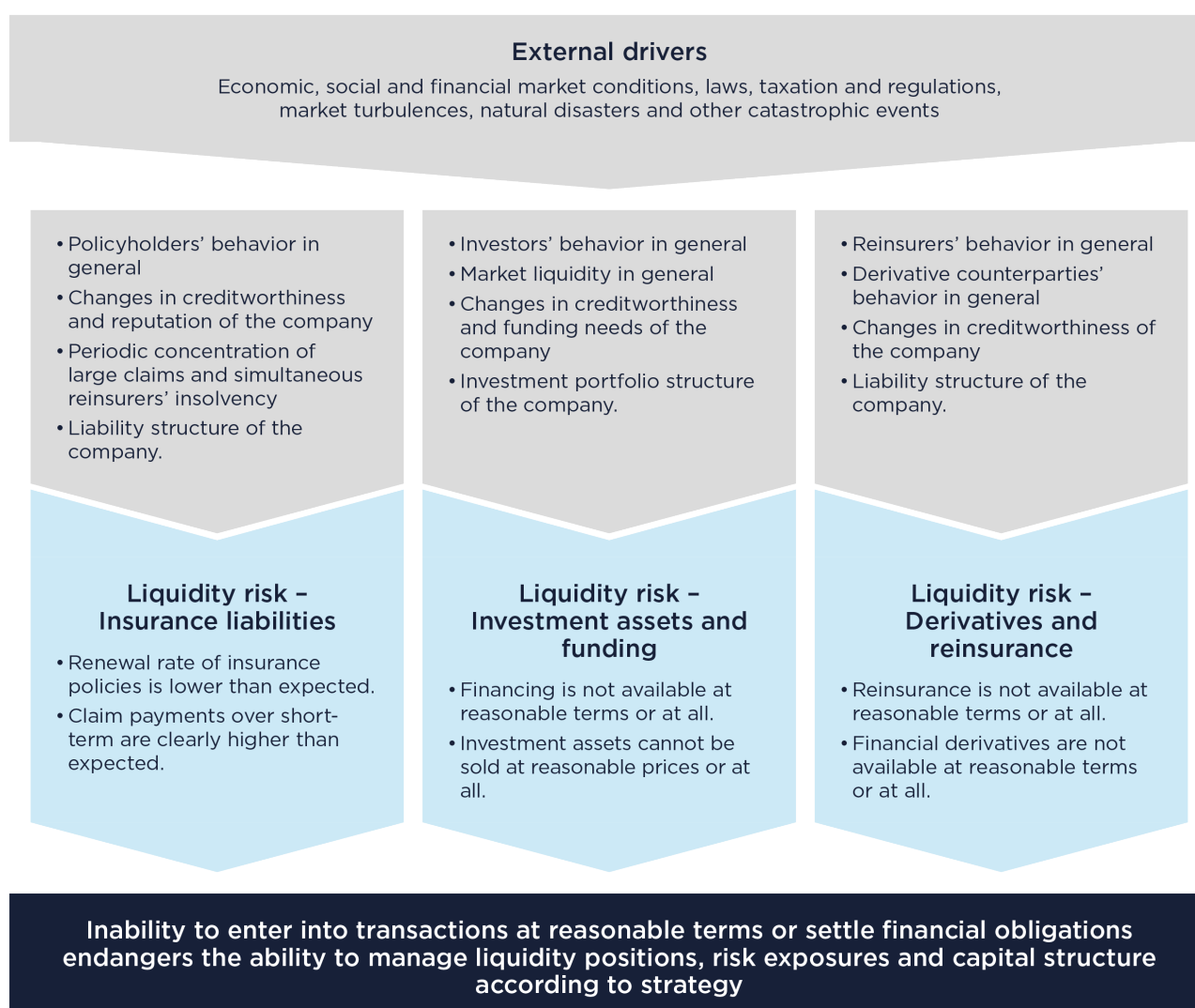
When changes in different market risk variables (interest rates, inflation, foreign exchange rates) cause a change in the fair values of investment assets and derivatives that is of a different size than the respective change in the economic value of the insurance liabilities, the company is exposed to ALM risk. It has to be noted that the cash flows of insurance liabilities are modelled estimates and are therefore uncertain in relation to both their timing and amount. This uncertainty is a central component of ALM risk.

Interest rate risk was defined earlier in the connection of market risks and hence in this section only liquidity risk is defined.

Liquidity Risks

Liquidity risk is the risk that Group companies are, due to a lack of available liquid funds or access to relevant markets, unable to conduct their regular business activities in accordance with the strategy, or in extreme cases, are unable to settle their financial obligations when they fall due.

Liquidity Risks



The sources of liquidity risk in Sampo Group are either internal or external by their nature. If the company's rating declines or if the company's solvency otherwise appears jeopardized, its ability to raise funding, buy

reinsurance cover or enter into financial derivatives at a reasonable price is endangered. Moreover, policyholders may also not be willing to renew their policies because of the company's financial challenges

or in the case of reputational issues. If these risks, caused by internal reasons, are realized together with general market turmoil, which makes the selling of

investment assets and the refinancing of debt difficult, maintaining adequate liquidity can be a challenge.

Operational Risks

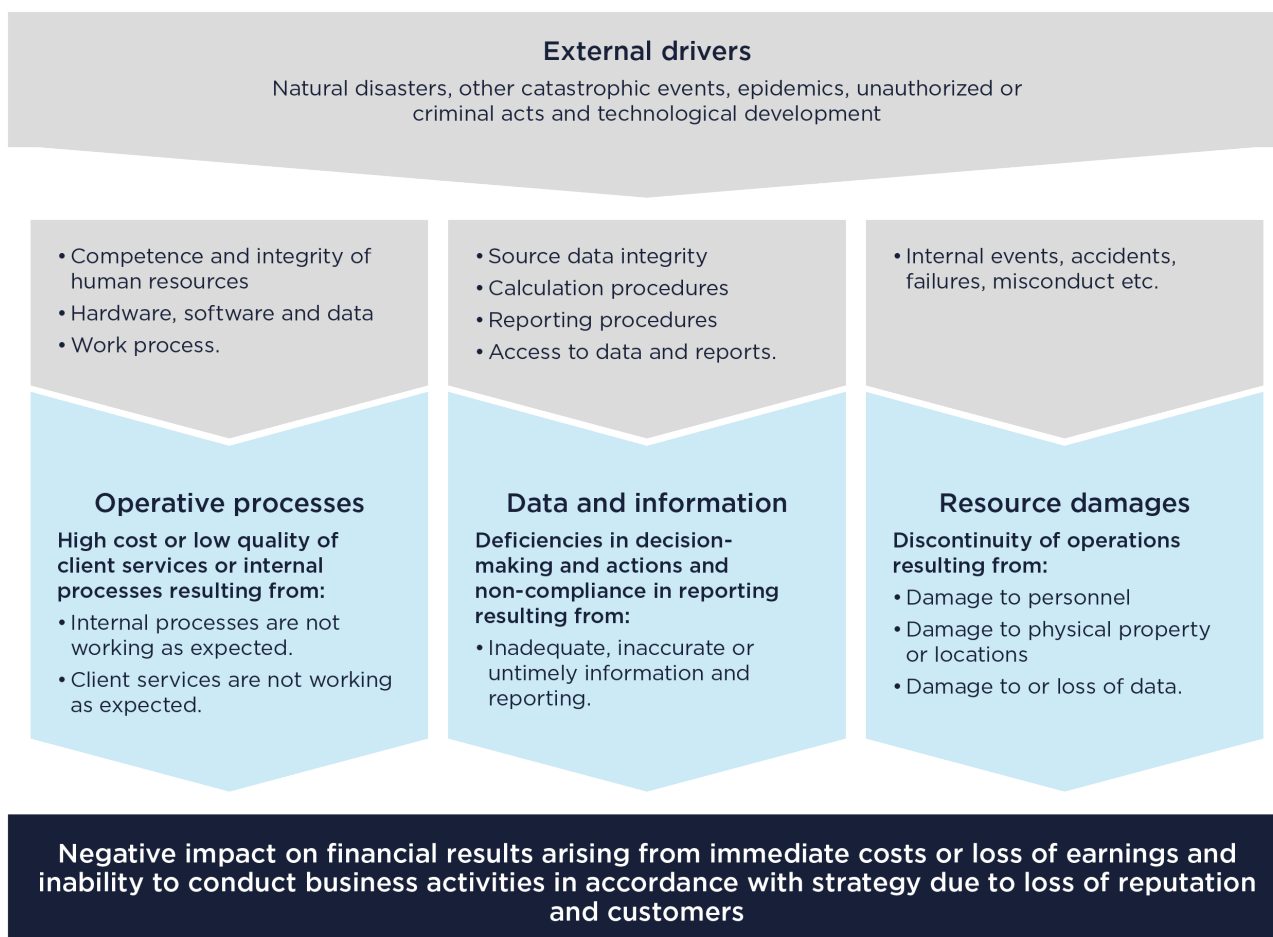
Operational risk refers to the risk of loss resulting from inadequate or failed processes or systems, from personnel or from external events. This definition includes compliance risk but excludes risks resulting from strategic decisions. The risks may realize for instance as a consequence of:

- Internal misconduct;
- External misconduct;
- Insufficient human resources management;
- Insufficiencies in operating policies with regard to customers, products or business activities;
- Damage to physical property;
- Interruption of activities and system failures; or
- Defects in the operating process.

Materialized operational risks can cause an immediate negative impact on the financial results due to additional costs or loss of earnings. In the longer term, materialized operational risks can lead to a loss of reputation and, eventually, a loss of customers which endangers the company's ability to conduct business activities in accordance with the strategy.

Compliance risk is the risk of legal or regulatory sanctions, material financial losses or loss of reputation resulting from a company's failure to comply with laws, regulations and administrative orders as applicable to its activities. A compliance risk is usually the consequence of internal misconduct and hence it can be seen as a part of operational risk.

Operational Risks



Appendix 3: Principles of Investment Portfolio Management

Investments (excluding Mandatum Life's investments covering unit-linked policies) are managed according to the subsidiaries' Investment Policies which are focused on insurance liabilities and solvency.

In financial accounting the investment portfolios are reported on a fair value basis. These fair values are determined either on the basis of direct market quotes or by using various valuation models. More information on the valuation methods of the investment assets is presented in [Note 17](#) of Sampo Group Financial Statements. In regards to Solvency II valuation methods, there are some minor differences compared to IFRS rules. See [Appendix 4](#) for Solvency II Valuation Methods.

Sampo Group's Chief Investment Officer is responsible for managing investments within the limitations of the Investment Policies prepared by Group companies and approved by Group companies' Boards of Directors. The insurance subsidiaries and the parent company have a common Group-wide infrastructure for investment management as well as for performance and risk reporting which facilitates simultaneous company and Group level reporting. These create cost efficiency in Investment activities and also facilitate Group-wide monitoring of portfolios.

Sampo Group has a thorough understanding of the Nordic markets and issuers and consequently Group's direct investments are mainly made in Nordic securities although lately direct investments outside non-Nordic countries have increased. Mandatum Life's direct investments are mainly denominated in euro and in companies geographically located in Finland and selectively in other countries. If P&C has the major part of its direct investments denominated in the Scandinavian currencies and their respective countries. Through effective differentiation in asset selection between companies, concentration risk is proactively managed at Group level. Concentration risk is also managed by limit structures.

Management of Equity and Spread Risks of Direct Investments

In Sampo Group, the selection of direct fixed income and equity investments is based primarily on stock and bond picking and secondarily on top-down allocation. This investment style ensures that the portfolio includes thoroughly analyzed investments with risk return ratios internally considered to be

adequate, although the portfolio might not be necessarily as diversified as finance or portfolio theory suggests.

The main steps in decision making, limit and monitoring process are as follows:

1. Potential investments are analyzed thoroughly. The creditworthiness and future prospects of the issuer are assessed together with collaterals and structural details of the instruments. Although external credit ratings by rating agencies and the opinions of analysts are used to support the internal assessment, Sampo Group's own internal assessment is always the most important factor in decision making.
2. Investment transactions shall be executable on short notice when an opportunity appears. This puts pressure on authorizations and credit limit structures and procedures which must be simultaneously (i) carried out flexibly enough to facilitate fast decision making regardless of instrument type, (ii) well-structured to ensure that investment opportunities are assessed prudently, taking into account the specific features and risks of all investment types and (iii) able to restrict the maximum exposure of a single name risk to a level that is within the company's risk appetite.
3. Accumulated credit exposures over single names and products are monitored regularly at the subsidiary level and at Group level to identify unwanted concentrations. Credit exposures are reported, for instance, by sectors and asset classes and within fixed income by ratings.

Management of Indirect Investments

When investing in non-Nordic securities, funds or other assets, third party managed investments are mainly used. These investments are primarily used as a tool in tactical asset allocation when seeking return and secondarily in order to increase diversification.

The external asset managers and funds managed by them are selected for both companies by the same members of Sampo Group's Investment Unit. The funds are mostly allocated to areas outside of the Nordic countries. Consequently, the risk of

unidentified or unwanted concentrations is relatively low.

Sampo Group does not have Asset Backed securities in its portfolios.

Control of Investment Activities

Market risk control is separated from portfolio management activities in two ways. Firstly, persons independent from the Investment Unit prepare Investment Policies for Board approval. Secondly, Middle Office units which are independent of the Investment Unit, measure risks, performance and control limits set in Investment Policies on a daily basis.

Market risks and limits are also controlled by the Investment Control Committee (ICC) in If P&C and the Asset and Liability Committees (ALCOs) in Mandatum Life on a monthly basis at a minimum. These committees are responsible for the control of investment activities within the respective legal entity.

The ICC is responsible for monitoring the implementation of and compliance with the

Investment and Asset Coverage Policies. The committee considers and proposes changes to the policies. The Chairman is responsible for the reporting of policy deviations and other issues dealt with by the committee.

Mandatum Life has two ALCOs, of which one controls the segregated assets and liabilities and the other controls the rest of Mandatum Life's with profit assets and liabilities. The ALCOs ensure that the investment activities are conducted within the limits defined in the Investment Policy as approved by the Board and monitors the adequacy of liquidity, profitability and solvency capital in relation to the risks in the balance sheet. The ALCOs prepare proposals of Investment Policy to the Board of Directors and report to the Board.

The aggregated market risks and concentrations at Group level are controlled by Group's Audit Committee quarterly at a minimum. If deemed necessary, the concentration risks are further managed by deploying group level exposure restrictions, for instance by industries or by individual issuers.

Appendix 4: Valuation for Solvency Purposes

Sampo Group Solvency II balance sheet is derived from Sampo's consolidated IFRS financial statements, which are adjusted in accordance with Solvency II regulation. The IFRS accounting principles "Summary of significant accounting policies" are presented in Sampo Group's Financial Statements in the Notes to the Accounts.

There are no major adjustments to the IFRS numbers necessary for Solvency II purposes. A large majority of Sampo Group's assets are valued at fair value on the IFRS balance sheet based on market values. No significant alternative valuation methods are used. The fair values of financial liabilities and properties are given in the notes to the IFRS accounts.

The determination of the fair values are presented in Sampo Group's Annual Report in the section "Summary of significant accounting policies/ Fair value and Investment property" and also in the notes "Fair values" and "Determination and hierarchy of fair values".

For comparison purposes the values derived from Sampo's consolidated IFRS financial statements are mapped in accordance with the Solvency II balance sheet presentation in the below table Solvency II adjustments, 31 December 2016. Only main rows are presented. The currency used is the group's reporting currency, the euro.

Solvency II Adjustments

31 December 2016

Assets, EURm	IFRS*	Solvency II	Adjustment
Goodwill, intangible assets and deferred acquisition cost	825	-	-825
Deferred tax assets	34	10	-24
Property, plant & equipment held for own use	20	21	1
Investments (other than unit-linked)	32,610	32,509	-101
Property other than for own use	86	134	48
Holdings in related undertakings	8,126	7,977	-149
Equities	2,179	2,179	-
Bonds	13,251	13,251	-
Collective investments undertakings	1,982	1,982	-
Derivatives	45	45	-
Deposits other than cash equivalents	22	22	-
Assets held for unit-linked contracts	6,362	6,362	-
Loans and mortgages	557	557	-
Reinsurance recoverables	236	212	-24
Non-life and health similar to non-life	236	209	-27
Life and health similar to life	-	3	3
Insurance and intermediaries receivables	1,222	333	-889
Reinsurance receivables	15	15	0
Receivables (trade, not insurance)	188	70	-118
Cash and cash equivalents	2,549	2,549	-
Any other assets	258	125	-133
Total assets	37,955	35,844	-2,111
Liabilities, EURm	IFRS	Solvency II	Adjustment
Technical provisions - non-life	7,212	5,879	-1,333
Technical provisions - life	6,927	6,912	-15
Technical provisions - unit-linked	6,361	5,911	-450
Provisions other than technical provision, Pension benefit obligations	114	114	-
Deferred tax liabilities	532	475	-57
Derivatives	81	81	-
Financial liabilities other than owned to credit institutions	3,548	3,548	-
Insurance and intermediaries payables	219	219	-
Reinsurance payables	36	35	0
Payables (trade, not insurance)	439	321	-118
Subordinated liabilities	219	230	11
Any other liabilities, not elsewhere shown	333	209	-124
Total liabilities	26,021	23,935	-2,086
Excess of assets over liabilities	11,934	11,910	-24

* In IFRS Sampo's financial assets consist of equity and debt instruments available for sale and fair value through profit/loss, derivatives and loans and receivables. Financial liabilities in IFRS consist of derivatives and other liabilities eg. subordinated liabilities and other debt securities in issue.

According to the Solvency II balance sheet the excess of assets over liabilities for the Group per 31.12.2016 was EUR 24 million less than the respective IFRS figure. On the asset side the main differences are due to the different treatment of intangible assets and inclusion of future undue premium receivables in

technical provisions instead of assets. On the liability side there are material differences related to technical provisions due to different classification of some items and valuation principles. These differences are discussed in the next sections.

Assets

In the group Solvency II balance sheet goodwill, intangible assets and deferred acquisition costs are valued at zero.

While recognition of deferred taxes is consistent with the IFRS accounts, SII adjustments affect the carrying values in the SII balance sheet and thus give rise to additional deferred tax effects. Differences in deferred tax treatment are mainly due to elimination of certain assets (intangible assets, etc) and differences in the calculation of technical provisions.

For the year ended 2016 in its consolidated accounts Sampo recognized deferred tax assets of EUR 34 million and deferred tax liabilities (DTL) of EUR 532 million. Subsequent to Solvency II valuation adjustments, DTA decreases by EUR 24 million (leaving a SII DTA position of EUR 10 million) and DTL amount is decreased by EUR 57 million (leaving a SII DTL position of EUR 475 million).

There are no anticipated effects on the carrying amounts of Sampo's investment assets except for properties. In solvency II balance sheet investment properties are valued at fair value according to SII valuation rules. This increases the value of investment properties by EUR 48 million.

Loans and mortgages are valued at amortized cost, which is not in line with the treatment for financial assets in Solvency II. Sampo, however, considers the IFRS value to be substantially commensurate with the fair value of the loans.

Participations are reported in Sampo's SII consolidated balance sheet using the adjusted equity method, or where applicable, the IFRS equity method, with the exception of Topdanmark. Participations refers to undertakings in which Sampo Group directly or indirectly has significant influence, which is normally the case when the shareholding amounts to a minimum of 20 per cent of the capital or voting rights for all shares in the company. The carrying amount of Topdanmark is deducted from consolidated group balance sheet and instead replaced with Group's share of Topdanmark's Solvency II own funds. Sampo Group's share of Topdanmark's own funds is EUR 247 million. This corresponds with the value that would be recognized in line with article 233 of the Directive, being the proportional share of Topdanmark's own funds eligible for its SCR.

Reinsurance recoverables represent the reinsurers' share of the best estimate, less expected counterparty default. Consistently with technical provisions, these amounts are calculated in line with the SII requirements.

Under Solvency II the technical provisions should fully take into account all cash inflows and outflows. Therefore, in regard to the policies in force, the future premiums expected but not yet due are not recognized as receivables. Instead they are included in the premium provision based on a best estimate, which differs from the treatment under the IFRS, where premium receivables are recognized in the balance sheet. Thus receivables of EUR 889 million were reclassified from premium receivables to insurance liabilities. Receivables in Solvency II relate only to the amounts due for payments by policyholders, insurers, and others linked to insurance business.

The adjustment of receivables (trade receivables, not insurance receivables) relates to netting of receivable amounts in relation to the Finnish medical malpractice pool ("MMP"), public sector, which are treated as part of the SII best estimate technical provisions, whereas in Sampo Group's consolidated accounts the MMP provision public sector is recognized as other assets or other liabilities. Receivables of EUR 118 million are reclassified from trade receivables to the insurance obligation.

Technical Provisions According to Solvency II in If P&C

In Solvency II, the value of technical provisions is equal to the sum of a best estimate and a risk margin. The calculation of technical provisions according to Solvency II is described in the following chapters.

Best Estimate

The best estimate corresponds to the probability-weighted average of future cash flows, taking into account the time value of money using the risk-free interest rate term structure as published by the European Insurance and Occupational Pensions Authority ("EIOPA"). The best estimate is calculated on a gross basis, without deduction of the amounts recoverable from reinsurance contracts, and on a net basis by calculating separately the ceded amount representing amounts recoverable from reinsurance contracts.

Cash-flow projections used in the calculation of the best estimate include all claims payments that will be paid to policyholders and beneficiaries, as well as payments to builders, repair shops etc. for services rendered and expected recoveries from reinsurance contracts. Recoveries and payments for salvage and subrogation are taken into account. Cash flows for premium provision include future premium payments

on existing contracts where this has a material effect on the result.

Development of with profit claims provisions are taken into account implicitly since they are part of the historical claims data and they are allocated to each claim. Claims handling expenses for incurred claims are taken into account when estimating the Claims Adjustment Reserve, while all expenses for non-incurred claims are taken into account when estimating the premium reserve.

The calculation of the best estimate should be done separately for each currency. If P&C's business is exposed to a number of different currencies. Case reserves are determined in the currency in which the claim is assumed to be paid and where the effect is material.

Actuarial and statistical methods used for calculating best estimates of technical provisions are based on recognized actuarial and statistical techniques. Reserves are calculated in a transparent manner and would be possible to be reviewed by a qualified expert.

Technical provisions are calculated within clearly defined homogeneous risk groups and lines of business. All assumptions are reviewed quarterly and recorded. The methodology is documented in "Guiding Technical Principles Policy" and "General Reserving Policy".

The basic risk-free rates are derived for the currencies DKK, EUR, GBP, NOK, SEK and USD and these

currencies cover more than 99 per cent of technical provisions. For technical provisions in other currencies than these, either EUR or USD risk-free interest rate term structure is used. For each material currency, the basic risk-free interest rates are derived on the basis of the relevant swap rates of that currency, adjusted by credit risk and volatility adjustment where applicable.

Risk free rates without volatility adjustment are used for valuing Solvency II technical provisions.

Risk Margin

The risk margin is intended to represent technical provisions corresponding to the cost of capital for holding the insurance liabilities to full run-off.

In the calculation of the risk margin, it is assumed that the assets are selected in such way that the SCR for market risk that the reference undertaking is exposed to is zero, i.e. there is no residual market risk. In short, to calculate the risk margin, cash flows are recalculated to best estimates, which in turn are used to calculate a Basic SCR. The Basic SCR together with operational risk is discounted and a cost of capital is introduced to arrive at the final risk margin per legal entity.

The differences between IFRS and Solvency II technical provisions are summarised in the below table Technical Provisions in IFRS and Solvency II, 31 December 2016.

Technical Provisions in IFRS and Solvency II

31 December 2016

EURm	IFRS	SII	Difference
Technical provisions - non-life	7,212	5,879	-1,333
Non-life (excluding health)	5,603	4,391	-1,212
Best Estimate	5,603	4,225	-1,378
Risk margin	-	166	166
Health (similar to non-life)	1,610	1,488	-121
Best Estimate	1,610	1,406	-203
Risk margin	-	82	82
Technical provisions - life (excluding index-linked and unit-linked)	2,167	2,221	54
Health (similar to life)	1,064	1,128	64
Best Estimate	1,064	1,078	14
Risk margin	-	49	49
Life (excluding health and index-linked and unit-linked)	1,103	1,093	-10
Best Estimate	1,103	1,060	-43
Risk margin	-	33	33

Uncertainties Related to the Calculations

The nature of technical provisions means that there is always uncertainty associated with the calculations since it inevitably involves assumptions about future events.

Valuation Used for Solvency Purposes Compared to Valuation in the Financial Statements

Different principles are used for calculating the technical provisions in Solvency II and in the IFRS financial statements, the latter of which rely on statutory and national requirements as defined in both national law and in IFRS and national GAAP regulations. As a result, material valuation differences mainly exist with regards to:

- Definition of premium provision in Solvency II compared with the Unearned Premium Reserve of the statutory accounts;
- Application of discounting;
- In addition to the best estimate calculations, there is also an additional requirement in Solvency II of calculating an explicit risk margin; and

- Some minor valuation differences, which also arise due to the counterparty default calculation in relation to reinsurer's share of technical provisions.

Some of the more important changes affecting If P&C's business as a result of using these different principles are included below:

- Movement to a cash flow basis for valuation of both gross and ceded business.
- The technical provisions should give a "true best estimate", defined as the mean of the full range of possible future outcomes, meaning the removal of existing statutory or other legal requirements to include explicit risk margin/other safety margins within the technical provisions.
- The requirement to hold an unearned premium provision using an accounting recognition basis is replaced by a Solvency II premium provision valued on a best estimate basis. This also includes a requirement to take into account future premium cash inflows when calculating the best estimate provisions and reinsurance recoverables. In the financial statements, the unearned premium provision is equal to the part of the written premium that is yet to be accrued to premiums earned. In Solvency II the premium provision is cash flow based and, in line with a best estimate, the premium provision only includes the part of written premiums which is dedicated to cover future claims and other expenses stemming from present insurance policies. In addition to this, premiums

expected to be received in future date and related to the future risk periods are included in the premium provision.

- The basis for recognizing existing contracts will also impact reinsurance contracts and their expected cash-flows.
- Introduction of discounting for all technical provisions, leading to increased interest rate sensitivity in the technical provisions.
- Introduction of the principle of a market consistent basis and calculation of a Solvency II defined risk margin, in addition to the best estimate provisions.
- Liabilities are segmented in accordance with Solvency II defined lines of business, as opposed to current insurance class segmentation according to local GAAP or IFRS requirements.

The largest effect is due to the revaluation of the Premium Provision which is in large part offset by the netting of the premium receivable after it has been reclassified into the best estimate provision cash inflows as well as removal of Deferred Acquisition Costs. This reduces the technical provisions by EUR 245 million. The majority of technical provisions, with the exception of vested annuities in the Claims Provision Reserves and the Annuity IBNR Provision in Finland, are not discounted in the IFRS. As a result of discounting, on the assets side ceded provisions decrease while on the liabilities side, gross provisions decrease.

The introduction of a risk margin calculation offsets the positive differences presented above.

In the IFRS consolidated accounts, recognition of a liability as an insurance contract would be dependent on the existence of significant insurance (underwriting) risk (refer IFRS 4). Based on If P&C's assessment that there is no material degree of insurance risk prevalent, the Medical Malpractice Pool public sector is not recognized as an insurance contract in the consolidated accounts, but treated as a service contract with its components recognized in other assets and other liabilities. Accordingly, a difference occurs with the Solvency II treatment where the liability should be recognized within the insurance

obligations. Therefore under Solvency II treatment all receivables and liabilities related to the MMP public sector are reclassified as forming part of the Solvency II best estimate technical provisions. Under this treatment the receivables balances are netted against the liabilities in the technical provisions, as they are considered to be premium cash in-flows and thus included in the technical provisions.

Technical Provisions According to Solvency II in Mandatum Life

Recognition of insurance liabilities in life insurance business is analogical to insurance contracts recognized under IFRS 4.

Best Estimate and Risk Margin

Technical provisions according to Solvency II are equal to the sum of the best estimate and the risk margin.

The best estimate is calculated as an expected value (probability weighted average) of discounted future net cash flows. The discount curve used is the relevant risk-free interest rate term structure of Solvency II regulation which is based on market rates, credit risk adjustment and the Ultimate Forward Rate ("UFR"). Mandatum Life also applies the volatility adjustment when defining the Solvency II discount curve.

Net cash flows are produced using risk neutral market consistent economic scenarios together with parameters and assumptions derived from historical observations related to Mandatum Life's insurance policies. Market consistent scenarios are particularly needed for the valuation of economic guarantees and policyholder options embedded in insurance contracts. The best estimate for the unit-linked policies is the sum of the savings in these policies deducted with the present value of future underwriting and expense result stemming from these policies.

Risk margin is calculated based on the 6 per cent cost of capital defined in Solvency II regulation. This cost of capital is applied to the capital requirements of life and operational risks.

Overall Position, Technical Provisions

31 December 2016

EURm	IFRS value	Solvency II value	Differences
Technical provisions - life (excluding unit-linked)	4,801	4,732	69
Best Estimate		4,512	
Risk margin		220	
Technical provisions - unit-linked	6,361	5,911	450
Best Estimate		5,841	
Risk margin		70	

Material Differences in the Valuation for Solvency Purposes Compared to Valuation in Financial Statements

Technical provisions on financial statements are calculated using the parameters defined in the technical basis of the products, i.e., the applied discount rate equals the guaranteed rate of the policy and parameters related to insurance risk are the same as those used in the premium calculation. Technical provisions on financial statements for unit-linked policies are materially the same as the amount of the savings in these policies.

Technical provisions on financial statements include also reserves for decreased discount rates and longevity reserves.

The main differences between technical provisions for solvency purposes and for financial statements are:

- Applied discount rate and valuation of guarantees and options;
- Contract boundary definitions, particularly how future expected premiums are taken into consideration;
- Consideration of future years' risk and expense result; and
- Generally the level of assumptions (prudent assumptions vs. best estimate assumptions and explicit risk margin).

Accounting principles of life insurance contracts are presented in Sampo's Financial Statements in the Notes to the Accounts in section Summary of Significant Accounting Policies/Life insurance business.

Mandatum Life has got an approval from Financial Supervisory Authority to apply transitional measure on technical provisions for pension policies with guaranteed interest of 3.5 or 4.5 per cent.

Other Liabilities

The effects on Sampo's liabilities other than technical provisions are fairly limited, consisting mainly of the valuation impact on financial liabilities (Other financial liabilities than debt owned to credit institutions and Subordinated debt) and payables balances related to the technical provisions.

Other liabilities than technical provisions are valued by discounting future cash flows with the government yield plus calculated spread at inception.

Deferred tax liabilities are discussed above in connection with deferred tax assets.

The reclassification of Medical Malpractice Pool public sector from a service contract to an insurance contract also has an effect on payables balances. Payables of EUR 118 million are reclassified from trade payables to the insurance obligations.

Other provisions than technical provisions and contingent liabilities do not give any additional rise to either new liabilities being recognized for solvency purposes or existing liabilities being recognized differently to their financial statement recognition. Provisions and contingent liabilities as well as pension benefits and operating leases are presented in Sampo's Financial Statements in the Notes to the Accounts. There are no major financial leasing arrangements in Sampo Group.