MANDATUM LIFE | Annual Report 2019

Contents

Year 2019 in brief

Mandatum Life is a solvent and respected Finnish financial services provider. It is part of Sampo Group.

Equity returns behind good result, low interest rates troubling

Excluding the one-time EUR 197 million item related to the Danske Bank agreement, included in the comparison year, the comparable result for 2019 exceeded that of the previous year. In particular, comprehensive income clearly exceeded the previous year's level. The good result can be attributed to exceptionally strong investment returns, especially equity returns. Interest rates fell to a record low during the year, due to which the Company strengthened its solvency position by issuing a EUR 250 million Tier 2 subordinated loan in September 2019. In the same month, the company also applied for a credit rating (A+, S&P).

Unit-linked premium income again reaches record-high level

Mandatum Life's unit-linked premiums written reached a record-high level for the second year running. The premiums written included EUR 400 million in exceptional items, but even excluding these, the unit-linked premiums written clearly exceeded the previous year's level. The growth in premiums written is an indication that our customers have been very receptive to the co-investment model we offer, in which they are offered the opportunity to invest their assets according to the same principles and in the same investment objects as the company invests its assets.

Customer experience as a focal area

One of the company's main focal areas for 2019 was the improvement of the customer experience. Mandatum Life updated its service identity and continued to develop digital services for its customers. Services were also built to efficiently meet all of the official requirements. During 2019, Mandatum Life also expanded its service offering and began marketing Saxo Bank A/S's Trader securities trading service in Finland.

Responsibility as part of business

Good corporate governance is the foundation for responsibility. In addition to laws and regulations, the work of every Mandatum Life employee is steered by Sampo Group's Code of Conduct. Mandatum Life's responsibility is based on the cornerstones of the company's operations: increasing and securing the financial welfare of customers and safeguarding against risks. The company's main corporate responsibility themes are responsible investment, promoting responsible personnel practices in working life and implementing them in Mandatum Life's own work community. Mandatum Life has always believed that a positive employee experience leads to a good customer experience.

Employee satisfaction at Mandatum Life is measured annually via the Great Place to Work Finland survey. In 2019, 92 per cent of the company's personnel considered Mandatum Life an excellent place to work. Mandatum Life has made it on the list of Finland's best workplaces for ten years in a row, and the company was selected as the best place to work in Finland in the large organisations category of the 2020 Great Place to Work Institute's survey.

"Mandatum Life's responsibility is based on the cornerstones of the company's operations: increasing and securing the financial welfare of customers and safeguarding against risks."

Key figures 2019

PREMIUMS WRITTEN, OWN ACCOUNT

EUR 1,596 million

(1,074)

PROFIT BEFORE TAXES

EUR 280 million

(450)

RETURN ON EQUITY

23.5%

(8.7)

SOLVENCY RATIO

176%

(176)

RETURN ON INVESTMENTS, ORIGINAL PORTFOLIO

9.2%

(-2.4)

AVERAGE NUMBER OF STAFF

563

(531)

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Board of Directors' Report

Mandatum Life's Board of Directors' Report 1 January–31 December 2019

Operating result and solvency

Mandatum Life's consolidated financial statements have been prepared in accordance with the International Financial Reporting Standards (IFRS). The parent company Mandatum Life Insurance Company Limited's separate financial statements have been prepared in accordance with Finnish Accounting Standards. The profit shown in the consolidated financial statements differs from the parent company's profit mainly due to differences in the recognition principles for investment activities.

Profit before taxes for the financial year was EUR 280 million (450). The comparison year includes a one-time item of EUR 197 million related to Danske Bank's co-operation agreement. Comprehensive income from investments at fair values after taxes rose to EUR 308 million (112). Of the comprehensive income, the change in the fair value reserve amounted to EUR 87 million (-247).

The company's solvency ratio was 176 per cent (176), taking the transitional provisions into account. Own funds under the transitional provisions were EUR 2,117 million (1,740) and solvency requirement EUR 1,203 million (990). Own funds include a EUR 250 million Tier 2 subordinated loan issued in September 2019. Without the transitional provisions applied to the calculation of equity risk, which will end in 2022, and to the calculation of the technical provisions, which will end in 2031, the solvency ratio would be 142 per cent (131).

EUR million	1–12/2019	1–12/2018
Premiums written	1,595.9	1,074.2
Net income from investments	1,266.5	-26.2
Claims paid	-1,492.2	-1,115.8
Profit before tax	280.1	450.4
Total comprehensive income	308.5	112.5
Balance sheet total	14,091.9	12,788.8
Return on equity %	23.5	8.7
Solvency II own funds	2,117.1	1,739.7
Solvency ratio %	176	176

Premiums written

Mandatum Life Group's direct insurance premiums written amounted to EUR 1,603 million (1,081). Premiums written on unit-linked policies grew from the previous year to EUR 1,476 million (976). A significant part of the growth in premiums written can be explained by one-time items that increased the 2019 premiums written and claims expenditure by abut EUR 400 million. The Baltic branches' share of premiums written was EUR 30 million (25).

Investment operations

Mandatum Life's investment objective is to achieve the highest possible return at an acceptable level of risk. Successful investments provide policyholders with good nominal returns and accrue own funds, while also meeting shareholders' return expectations.

The investment portfolio is diversified both geographically and by instrument type to increase returns and reduce risks. During the year, there were no significant changes in the allocation of assets across asset classes.

The return on the assets covering the original liabilities was 9.2 per cent (-2.4). The excellent return was based mostly on the exceptionally good investment returns on equity investments. Also, the decline in interest rates grew the return on the investment assets for the calendar year, but, taking into account the technical provision requirements, the even lower interest rate level creates significant challenges for the company. Due to a significantly lower equity allocation, the return on the assets covering the segregated insurance portfolio was lower than the return on the other assets, at 6.4 per cent (-1.9).

A more detailed description of the investment assets and the risks inherent in investment operations are included in the risk management note to the financial statements.

Technical provisions

Mandatum Life Group's technical provisions before reinsurers' share grew by EUR 867 million and amounted to EUR 12,043 million (11,176). Unit-linked reserves increased by more than a billion euros during the year, amounting to EUR 8,117 million (6,955). The with-profit technical provisions fell clearly as expected, amounting to EUR 3,926 million (4,221). The segregated group pension insurance portfolio accounted for EUR 964 million (1,008) of the with-profit technical provisions at the end of the 2019 financial year. The discount rate for the segregated group pension insurance portfolio's technical provisions was lowered during the year to 0.0 per cent (0.5); the corresponding EUR 263 million (250) reserve for the decreased discount rate is included in the segregated portfolio's total technical provisions. The remainder of the with-profit technical provisions includes a total increase of EUR 230 million (232) in the reserve for decreased discount rates.

The Baltic branches' share of the technical provisions was EUR 178 million (159), of which unit-linked technical provisions accounted for EUR 166 million (145).

More detailed information on the distribution of and change in technical provisions is included in the risk management disclosure to the financial statements.

Life insurers must follow the so-called principle of fairness with respect to policies which under the insurance contract give entitlement to bonuses granted on the basis of any surplus generated by the insurance policies. Further information on the principle of fairness can be found in the accounting policies and on the company's website. The total return on the insurance portfolio segregated from Suomi Mutual is based on the agreed sharing policy, which is explained in the accounting policies and on the company's website.

Claims incurred

Mandatum Life's total amount of claims paid was EUR 1,597 million (1,153), of which reinsurers covered EUR 0.7 million (0.8). Unit-linked policies accounted for EUR 1,140 million (716) of claims paid. A major part of claims expenditure growth can be explained by one-time items that increased the 2019 claims expenditure and premiums written by about EUR 400 million. Mandatum Life made pension payments totalling EUR 427 million (403) to some 64,000 pensioners during the year. Group pension insurance accounted for 66 per cent (64) of this total. A total of approximately 67,000 other types of claims were also paid out.

Operating expenses

Mandatum Life Group's operating expenses were EUR 126 million (106) and the expense ratio was 98.4 per cent (91.7). The Group's total expense ratio, which takes into account all income intended to cover operating expenses, was 83.8 per cent (76.5). Mandatum Life does not amortise insurance acquisition costs, which means a policy's first-year result – the result for the acquisition year – is usually negative due to acquisition costs.

Personnel

The group employed an average of 563 (531) persons. Of these employees, 471 were in Finland, 35 in Estonia, 16 in Latvia and 37 in Lithuania. Of the Finnish personnel, 51 per cent were men and 49 per cent women. The employees' average age was 41 years.

Risk management

Mandatum Life's Board of Directors is responsible for ensuring the adequacy of the company's risk management and internal control. The Board annually approves the Risk Management Policy, Investment Policy, Internal Control Policy according to which risk management and internal control are arranged as part of the company's business.

The Managing Director of Mandatum Life has overall responsibility for the implementation of risk management in accordance with the Board's guidelines.

The responsibilities of the Chief Risk Officer are to ensure that risk management is organised accordingly and that the scope is adequate with respect to operations in general. Line organisations are responsible for the identification, assessment, control and management of their operational risks.

Risks are divided into main groups which are insurance, market, operational (incl. legal and compliance risks), business and reputational risks. In addition to the Managing Director and CRO each risk area has a responsible person in the Risk Management Committee which convenes regularly.

A note has been prepared on risks and risk management, explaining in greater detail Mandatum Life's principal risks and general risk management principles.

Corporate structure and ownership

Mandatum Life Insurance Company Limited is a fully owned subsidiary of Sampo plc.

Mandatum Life Group's parent company is Mandatum Life Insurance Company Limited, which has branches in Estonia, Latvia and Lithuania. The most significant subsidiaries are Mandatum Life Services Ltd. and Mandatum Life Investment Services Ltd. In addition, the Group includes 19 (20) housing and property companies and Mandatum Life Fund Management S.A., which operates in Luxembourg.

Significant post-balance-sheet events

There are no significant post-balance-sheet events.

Outlook

The interest rate cuts and restarted bond purchase programs by the main central banks depressed market interest rates in 2019, increasing the price and valuation levels of both fixed income and equity investments. The slowing down of global economic growth, the downward revision of companies' earnings forecasts and trade policy tensions between the United States and China maintained price volatility, but the equity market trend remained upward throughout the year (29.1 per cent, MSCI World AC index return in euros). The stock prices on the Helsinki Stock Exchange rose clearly (18.7 per cent, HEXP index total return in euros), however, underperforming the average market return in the European equity market. In the United States, the Federal Reserve cut the key interest rate three times during the year and initiated market stabilising measures on the repo market. In Europe, the European Central Bank lowered its deposit facility rate to -0.5 per cent and launched a new longer-term financing operation targeted at banks. In both market areas, long-term interest rates and credit risk premiums on corporate bonds were at a lower level at the end of the year than in the beginning of the year.

The deceleration of global economic growth experienced in 2019 is anticipated to level out, and economic growth for the full year 2020 is expected to settle at the previous year's level. However, the economic growth rate is expected to remain below the long-term trend growth due to the slowing of the Chinese economy and the dilution of the positive impacts of the tax cuts carried out in the United States in 2018. Consumer demand is still expected to grow, thanks to the improving labour market situation in Western countries, which will contribute to companies' earnings growth. The risk of negative economic impacts from trade policy disturbances is, by default, lower than in the previous year, with the US and China having come to an agreement on the rules for their mutual trade. The high valuation levels of risky asset classes will, however, push the return expectations on investments below the long-term averages, in spite of the anticipated improvement in companies' earnings power. The levelling out of economic growth and the tightening labour market in the US are expected to raise inflation expectations, building more pressure for market rates to rise.

Finland's economic growth is expected to recover gradually, alongside the recovery of Germany's and the rest of Europe's exports. Growth in domestic consumer demand is expected to remain at the level exceeding long-term growth, supported by an improving labour market situation and a low interest rate level. Finland's economic growth outlook will weaken in the long run due to the indebtedness of households and the public sector and the growing costs related to the aging of the population.

Uncertainty related to the markets and economic development, combined with the low interest rate level, will pose a considerable challenge to investment operations and the company's result. The solvency capital, the with-profit technical provisions that are decreasing relatively strongly and the discount rate reserve, together with the transitional provisions of Solvency II, put the company in a good position to tolerate both low interest rate levels and short-term market volatility.

In addition to investment operations, the company's result will also be affected by the risk result arising from insurance risks and by the expense result. The growth in unit-linked technical provisions creates a good foundation also for the expense result's growth expectations. The risk result is expected to be in line with the result for recent years, although annual variation is possible.

Mandatum Life expanded its service offering for customers to also cover equity savings accounts (ESA) as of 1 January 2020. ESAs will be provided by Saxo Bank A/S, for which Mandatum Life acts as a tied agent.

The company's solvency position under the Solvency II transitional provisions is good. The company's balance sheet structure will change considerably during the transitional periods as the with-profit portfolio continues its downward trend. This is expected to reduce the company's solvency capital requirements and at the same time increase its own funds, as a result of which the company's solvency position is expected to remain at a good level in the long run, in spite of the transitional periods elapsing.

Corporate Governance

Mandatum Life's corporate governance is primarily determined on the basis of the Finnish Insurance Companies Act and the Limited Liability Companies Act. More detailed provisions regarding the company's governance can be found in its Articles of Association and in the internal operating principles and guidelines approved by the Board of Directors. The supreme authority over the company's business is exercised by the General Meeting of Shareholders. The Annual General Meeting was held on 11 March 2019, and an Extraordinary General Meeting was held on 13 June 2019. In accordance with its Articles of Association, Mandatum Life's Board of Directors comprises no fewer than four and no more than seven members. The Board of Directors had four members in 2019.

The composition of Mandatum Life's Board of Directors in 2019:
- Kari Stadigh, Chairman, Group CEO (until 30 June 2019)
- Patrick Lapveteläinen, Chairman, Group CIO (from 1 July 2019)

- Patrick Lapveteläinen, Vice Chairman, Group CIO (until 30 June 2019)
- Knut Arne Alsaker, Vice Chairman, Group CFO (from 1 July 2019)

- Jarmo Salonen, Head of Investor Relations and Group Communication
- Petri Niemisvirta, Managing Director (from 1 July 2019)

The Board convened 14 times during the financial year.

The staff's elected representative at the Board of Directors' meetings is Katja Korelin and her deputy is Matti Lepistö. The staff representative is not a member of the Board of Directors.

Petri Niemisvirta is the company's Managing Director and Jukka Kurki is the Deputy Managing Director.

The Auditor elected by the Annual General Meeting is Ernst & Young Oy, Authorized Public Accountants (with Kristina Sandin, APA, as the auditor with principal responsibility).

The Board of Directors' proposal for the distribution of profit

Mandatum Life's profit in accordance with the Finnish Accounting Standards was EUR 242,578,676.33. The company's distributable funds were EUR 731,022,226.84. The Board of Directors proposes to the Annual General Meeting that EUR 150,000,000 of the profit for the financial year be distributed as dividends and that the rest be transferred to the profit and loss account.

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Risk management

Risk management

1. Risk management principles

The very nature of insurance business is to transfer risks from policyholders to the insurance company. Due to this, risk is an essential and inherent element of Mandatum Life's business activities and operating environment. The purpose of the risk management process is to identify the different risks affecting the business. The risk management process also ensures that different risks can be assessed, limited and controlled.

The key objectives for the risk management are to ensure capital adequacy in relation to the risks inherent in business activities, to limit fluctuations in financial results, to guarantee efficient and continued business processes under all circumstances and to limit the risks of all operations to a level accepted by the Board of Directors.

Mandatum Life Insurance Company Ltd is a wholly owned subsidiary of Sampo plc. Mandatum Life and its subsidiaries follows the risk management principles defined by the Sampo Group where the characteristics of a life insurance company have been taken into account. Figures and tables in this risk management disclosure mainly cover the parent company and for example the risk management principles of Mandatum Life Investment Services Ltd can be found in its Annual Report.

1.1 Risk management governance

The Board of Directors is responsible for the adequacy of the Company's risk management and internal control. The Board annually approves the Risk Management Policy, Investment Policy, Internal Control Policy according to which risk management and internal control are arranged as part of the company's business.

The Managing Director has the overall responsibility for the implementation of risk management in accordance with the Board's guidance. The responsibilities of the Chief Risk Officer are to ensure that risk management is organised accordingly and that the scope is adequate with respect to operations in general. Line organisations are responsible for the identification, assessment, control and management of their operational risks.

The Risk Management Committee (RMC) coordinates how risk management is organised and monitors all risks at Mandatum Life. The Committee is chaired by the Managing Director. Risks are divided into main groups which are insurance, market, operational (incl. legal and compliance risks), business and reputational risks. The Committee also monitors risks related to other than insurance activities. In addition to the Managing Director and CRO, each risk area has a responsible person in the Committee.

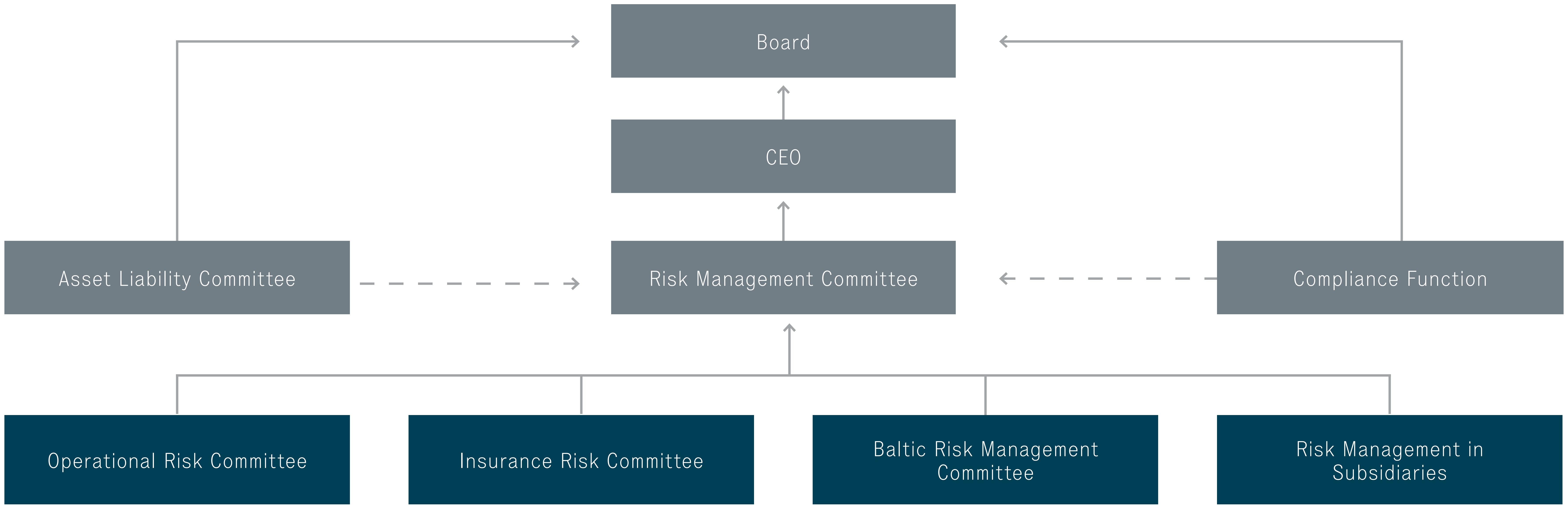
The key role of the Asset and Liability Committee (ALCO) is to monitor and control the market risks related to the Company's with-profit insurance portfolio and to monitor that investment operations are managed within the limits set in the Investment Policy approved by the Board of Directors. In addition, it monitors the sufficiency of liquidity, risk-bearing capacity and solvency capital in relation to balance sheet risks and prepares investment policy proposals for the Board of Directors. The ALCO meets monthly and reports to the Board of Directors and to the RMC. In practice, the Company has two Asset and Liability Committees (ALCOs), of which the other controls the balance sheet of the operationally segregated group pension insurance portfolio that was transferred from Suomi Mutual on 30 December 2014 and the other controls the rest of the Company's with-profit insurance portfolio and the Company's own equity assets.

The Insurance Risk Committee monitors the comprehensiveness and appropriateness of the Company's insurance risk management. A key task is to control compliance with the Company's Underwriting Policy and to maintain the policy in question. The Committee reports risk management issues related to insurance risks and 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. The Board approves the insurance policy pricing and the central principles for the calculation of technical provisions. In addition, the Board defines the maximum amount of risk to be retained on the Company's own account and approves the reinsurance policy annually.

It is the role of the Operational Risk Committee to ensure that operational risk management is appropriately arranged in the business units. A key task is to ensure that the Group has efficient procedures for monitoring and reporting realised operational risks. Significant observations are reported to the Risk Management Committee and to the Board of Directors. The Operational Risk Committee is also responsible for maintaining and updating the continuity and preparedness plans.

The Legal, Compliance and Data Governance unit takes care of legal issues related to the Company's business, the compliance function and the monitoring of data governance matters and risk identification in the Group. The Head of the Unit is responsible for the organisation of the unit and acts as a Compliance Officer and a member of the Risk Management Committee. At least one member of the Operational Risk Committee is from the Legal, Compliance and Data Governance unit.

Figure 1–1 Risk management organisation



There is no specific committee for business and reputational risks. Those risks are managed as part of strategic planning and management of daily operations. Due to the nature of the risks, the Managing Director is responsible for them and they are reviewed on a regular basis in the Risk Management Committee.

Mandatum Life Investment Services Ltd and Fund Management S.A. have their own Risk Management Policies and responsible persons, and they are the responsibility of the Board of Directors of the subsidiaries. In addition to this, all major incidents are reported also to the Risk Management Committee and operational risks are reported to the Operational Risk Committee.

The branch offices located in Estonia, Lithuania and Latvia have their own risk management systems that comply with the Group's principles.

In addition to the above-mentioned committees and units, it is Internal Audit's role, with its audit recommendations, to ensure that adequate internal controls are in place and to provide Internal Audit's annual review to the Board of Directors.

2. Risk related to the company's business activities

In addition to market risk, longevity risk and surrender risk, which belong to underwriting risk, are the main risks of the Company viewed through solvency capital requirements. These are described in more detail in the notes to the financial statements. In addition to those mentioned above, operational and business risks are key risks in terms of business operations and continuity. Operational risks and their management are described in section 4.

Life insurance business carries and manages risks originating from insurance events and liabilities. There are random fluctuations in the frequency and size of insurance events. The majority of with-profit life insurance business risks and result arise from investment assets. Return on assets should cover, in the long term, at least the guaranteed interest rate, bonuses based on the principle of fairness and the shareholders' return expectations. Other profit elements are generated from carrying insurance risk and expense risk. The insurance risk result is the assumed claims in premium calculations less the actual claims. The expense result is the expense charges from policies less the actual expenses.

3. Capital and solvency management

The goal of solvency capital management is to ensure the adequacy of available capital in relation to risks arising from the Company's business activities and business environment and the goal of capital management is to make sure items accounted as own funds are adequate with respect to capital requirements. Capital adequacy is assessed by comparing the amount of eligible own funds to the amount of risk capital required to bear the risks arising from the current business activities and the external operating environment.

3.1 Regulatory solvency capital requirements

Life insurance is a highly regulated business with formal rules for minimum capital and capital structure. The supervisors of the Company are the Financial Supervisory Authority in Finland and local supervisors in the Baltic countries. In addition to this, Mandatum Life Fund Management S.A. is regulated by the authority in Luxembourg.

Current EU-wide solvency regulations (Solvency II) concerning insurance companies entered into force on 1 January 2016. In calculating solvency requirements under Solvency II, the Company applies the 'standard formula' in which changes in own funds are stressed with market and life insurance risks that have been determined beforehand in the regulations. The goal has been to set the Solvency Capital Requirement (SCR) under Solvency II on a level where the own funds would be sufficient to secure the insured's benefits with a one-year horizon and a 99.5 per cent confidence interval.

The amount of own funds under Solvency II is based on the market-consistent valuation and on the valuation of the technical provisions using the yield curve determined by Solvency II, so own funds under Solvency II differ from own funds according to book value. The technical provisions under Solvency II equal the so-called best estimate of the technical provisions plus the risk margin. The best estimate is based on the realistically expected cash flows of the insurance portfolio, which are discounted using the yield curve applied in Solvency II, derived from the risk-free yield curve. In terms of unit-linked insurance, the best estimate is the insurance savings minus the present value of risk and expense surplus related to the unit-linked policies. The basis for the risk margin in the Solvency II framework is a six-per-cent cost of capital. For life insurance risks and

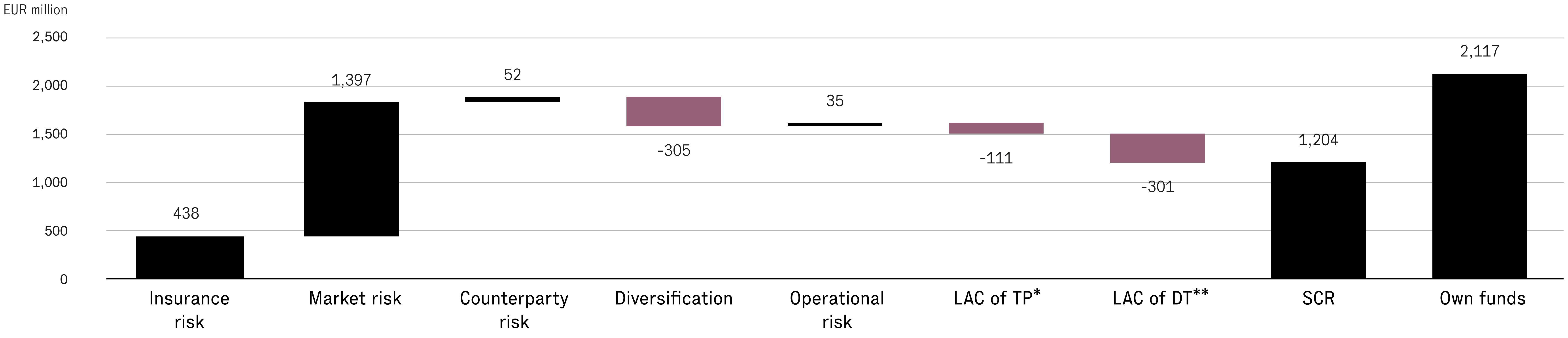
Table 3–1 Technical provisions, in accordance with Solvency II and IFRS, 31 Dec 2019

EUR million	IFRS value	Solvency II value	Adjustment
Technical provisions – life (excluding unit-linked)	**3,925**	**3,765**	**160**
Best Estimate		3,572	
Risk margin		193	
Technical provisions – unit-linked	**8,117**	**7,609**	**508**
Best Estimate		7,497	
Risk margin		112	

Table 3–2 Own funds, 31 Dec 2019, taking transitional measures into account

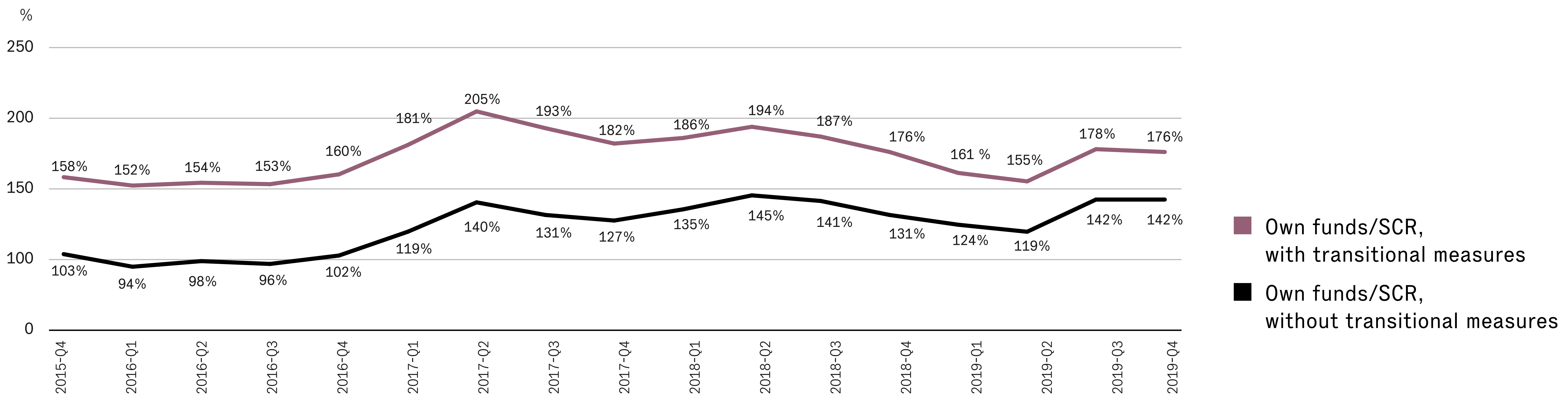
EUR million		
Tier 1	**Total**	**1,868**
	Ordinary Share Capital	181
	Reconciliation Reserve	1,587
	Subordinated Liabilities	100
Tier 2	**Total**	249
	Subordinated Liabilities	249
	Untaxed reserves	0
Tier 3	**Total**	0
	Deferred tax assets	0
Eligible own funds		**2,117**

Figure 3– 3 Solvency II Capital Requirements (SCR) and own funds, 31 Dec 2019 taking transitional measures into account



* Loss absorbing capacity of technical provisions
** Loss absorbing capacity of deferred taxes

Figure 3–4 Development of solvency ratio, 1 Jan 2016–31 Dec 2019



operational risks, the risk margin is the present value of the future cost of capital. Table 3-1 presents the value of the technical provisions in accordance with Solvency II, taking into account the transitional measure on technical provisions and the IFRS accounting value for Mandatum Life's parent company.

The Company applies a so-called transitional measure on technical provisions (until 31 December 2031) for the Company's original with-profit pension policies with a guaranteed interest rate of 3.5 or 4.5 per cent. In addition, the Company will apply a transitional measure related to equity SCR (until 31 December 2022). The transitional measure on technical provisions increases the own funds under Solvency II while the equity risk transitional measure decreases the SCR. Table 3–2 presents the structure of the Company's own funds on 31 December 2019, taking into account the transitional measure on technical provisions. The majority of the Company's own funds are classified as Tier 1 capital. EUR 249 million of the Company's subordinated loans are classified as Tier 2 capital. Overall, the Company has EUR 349 million in subordinated loans.

Taking into account the transitional measures, the Company's own funds under Solvency II amounted to EUR 2,117 million (1,740) and the corresponding SCR according to Solvency II was EUR 1,204 million (990).

The solvency ratio (own funds/SCR) was thus 176 per cent (176). The majori-ty of SCR results from market risks, the most significant ones being equity risk and credit spread risk. The most significant life insurance risk is the surrender risk for unit-linked contracts and risk insurance and the most significant biometric risk is the longevity risk of the group pension policies. The minimum capital requirement (MCR) according to Solvency II was EUR 301 million (248). Without the transitional measure applied to technical provisions, Mandatum Life's own funds would be EUR 1,756 (1,348) million, and the SCR without the transitional measure applied to the equity risk would be EUR 1,234 (1,030) million.

Figure 3–4 presents the development of the solvency ratio since Solvency II entered into force. Mandatum Life's strategic choices and their consequences for the structure of liabilities play a major role in terms of the expected solvency position. Business based on unit-linked policies has been the Company's focal area since 2001. Since then, unit-linked liabilities have grown and the average annual growth of liabilities has been about 20 per cent. Due to the nature of the business, annual variation is relatively large. In contrast, the trend of original with-profit liabilities has been downward since 2005. Especially the parts

Figure 3–5 Development of with-profit and unit-linked liabilities 2010–2019

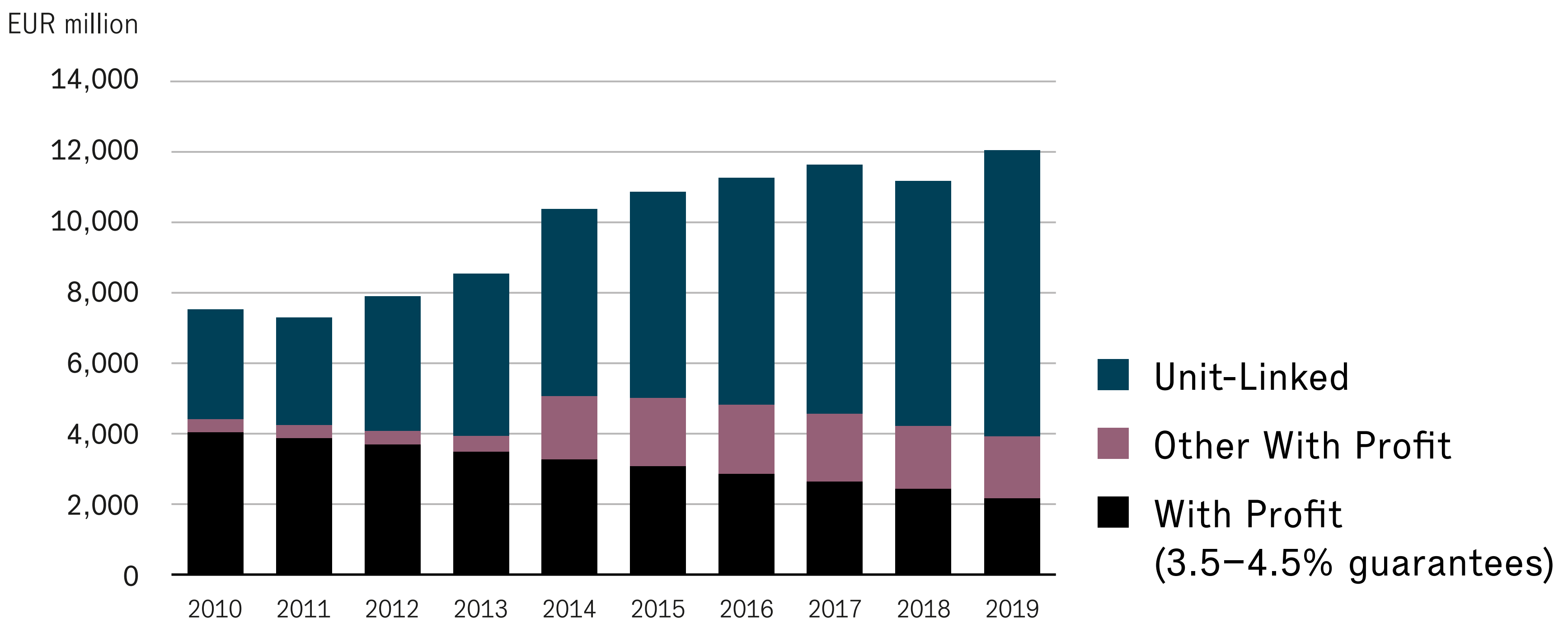
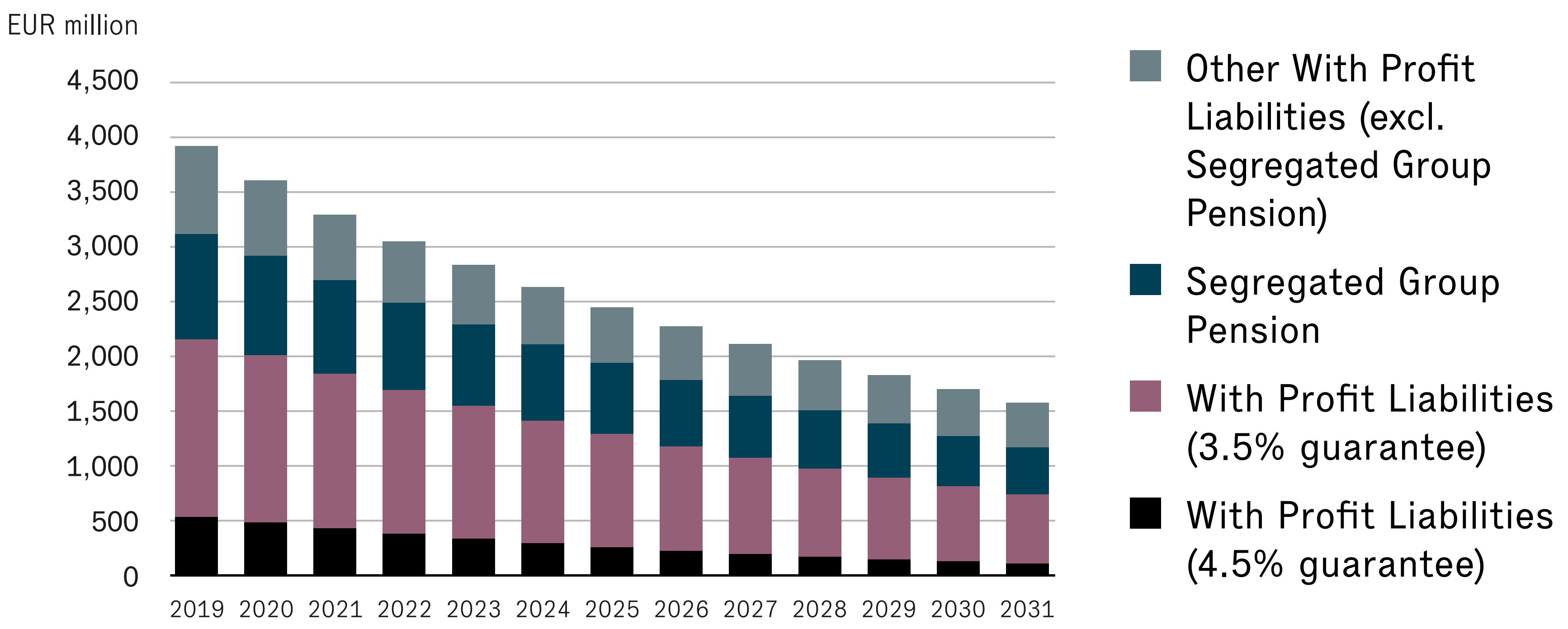


Figure 3–6 Prognosis of existing with-profit liabilities 2019–2031 without new sales



of liabilities with the highest 4.5 per cent and 3.5 per cent guarantees have decreased. Liabilities with the highest guarantees fell by EUR 264 million during 2019. In total, the with-profit liabilities decreased by EUR 296 million to EUR 3,926 million (4,221). The development of the structure and amount of the Company's liabilities is shown in Figure 3–5.

In Mandatum Life's view, the calculation according to the transitional measures gives a good picture of the Company's solvency position. The Company's balance sheet and its risk profile are expected to change significantly over the course of the transitional periods. The majority of the solvency capital requirements stem from the with-profit technical provisions and the assets covering them. Especially the Company's original with-profit insurance policies with a guaranteed interest rate of 3.5 and 4.5 per cent tie up capital, and the liabilities for these insurance policies are expected to decrease from the current EUR 2,161 million to less than EUR 750 million during the transitional periods as illustrated in Figure 3–6. This trend will strongly reduce the SCR arising from these policies, and the negative impact of these policies on own funds calculated without the transitional measures will simultaneously decrease. Even though the positive impact of the transitional measures will decrease over the course of the transitional period, the solvency position is expected to remain strong as a result of the positive trend in own funds and the decrease in the SCR. Internally, the Company monitors and forecasts the solvency ratio by applying the transitional measures and also without them. Both forecasts have an impact on the Company's business decisions.

In addition to Solvency II regulation which concerns insurance activities, Mandatum Life Investment Services Ltd. and Mandatum Life Fund Management S.A. have their own capital requirements based on relevant legislation.

3.2 Internal monitoring of solvency position

Solvency II also creates a framework for the internal monitoring of the solvency position. The company-level solvency position monitoring model, the 'risk-bearing-capacity model', is based on the SCR calculated using the Solvency II transitional measures and own funds. In the risk-bearing-capacity model, anticipatory monitoring limits are set for the Company's solvency position to enable the Company to react early enough to any weakening of its solvency position. There are three monitoring limits and they take into account the solvency position, both with and without the transitional measures. Table 3–7 presents the applicable monitoring limits and the key guiding principles for different zones.

Figure 3–7 Internal risk monitoring framework (risk-bearing-capacity model)

Solvency ratio with the transitional measures	Solvency ratio without the transitional measures	Guiding principle
> 160%	> 125%	Normal activities
< 160%	< 125%	Enhanced monitoring
< 145%	< 115%	Limited risk-taking
< 135%	< 107,5%	Reduced risks

When the risk-bearing capacity is above the upper monitoring limit, the Company's investment operations are guided, as usual, by the investment policy and the limits set therein. If the risk-bearing capacity falls below the monitoring limits, the monitoring frequency of the solvency position will be strengthened, the Board of Directors' role in investment operations will be increased, risk-taking will be limited and, in the final phase, the solvency position shall be strengthened either by reducing market risks or by increasing own funds, for example, through capitalisation. In practice, the measures depend on the situation at hand and on the general market situation. Thus, the actual measures may differ from the principles presented above, if the Board of Directors sees fit.

In addition to the company-level risk-bearing-capacity model, the segregated group pension portfolio has its own risk-bearing-capacity monitoring in place. The risk-bearing-capacity of the segregated group pension portfolio is based on the buffering effect of the provision for future bonuses in the investment risks. The monitoring limits of risk-bearing-capacity monitoring are also based on asset stress tests that have been determined beforehand, and the measures in the case of falling below the monitoring limits are similar to those in the company-wide risk-bearing-capacity model.

Risk-bearing-capacity models and the monitoring limits contained therein are determined annually in the investment policies decided on by the Board of Directors. The risk-bearing-capacities and monitoring limits are reported to the Board of Directors at least monthly.

4. Operational risks

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

- internal misconduct;
- external misconduct;
- insufficient human resources management;
- insufficiencies in operating policies as far as customers, products or business activities are concerned;
- damage to physical property;
- interruption of activities and system failures; and
- defects in the operating process.

Operational risk may materialise as additional expenses, compensations for caused damages, non-compliance with rules and regulations, loss of reputation, false information on risk position and consecutive losses, and interruption of business activities.

4.1 Goal of operational risk management and governance

The goal of operational risk management is to identify risks ahead of time, manage risks effectively and strive to minimise beforehand the impacts of any realised risks in a cost-effective manner. Business units are responsible for the identification, assessment, monitoring and management of their own operational risks. The Operational Risk Committee (ORC) monitors and coordinates central issues regarding operational risks, such as policies and recommenda-tions. The Committee ensures that risks are identified and business units have organised internal control and risk management 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 the occurred incidents. Significant observations on operational risks are submitted to the Risk Management Committee and to the Board of Directors.

4.2 Operational risk identification and management

Operational risks are identified through several different sources and methods:

1. Self-assessment: Mapping and evaluating the major operational risks and their probabilities and significance is carried out through a regular self-assessment process, including an evaluation of internal controls and sufficiency of instructions. Self-assessment is conducted regularly.
2. Analysis of incidents: Realised operational risks and near misses reported by the business units are collected and analysed by the ORC. Each business unit is responsible for reporting the occurred incidents and near misses in accordance with the Company's practices.

Risks recognised in the Company's self-assessment process for identifying key operational risks include the following: data governance issues, the ageing of IT and particularly information systems and the manual work stages of the processes.

In order to limit operational risks, the Company has approved a number of policies including, but not limited to, the Internal Control Policy, Security Policies, Compliance Policy, Continuity Plans, Acquisition and Outsourcing Policy, Complaints Handling Policy and a number of other policies related to ongoing operative activities. Deviations against different policies are followed up in each business unit and reported to the compliance function and risk management function.

The internal control system in processes aims at preventing and identifying negative incidents and minimising their impact. In addition, would there be an operational risk event or near misses, this must be analysed and reported to the ORC by the risk management function.

3

IFRS financial statements 2019

Consolidated comprehensive income statement

EUR million	Note	1–12/2019	1–12/2018
Insurance premiums	1	1,595.9	1,074.2
Net income from investments	2	1,266.5	-26.2
Other operating income		23.0	212.4
Claims incurred	3	-1,492.2	-1,115.8
Change in liabilities for insurance and investment contracts	4	-971.2	426.4
Staff costs	5	-51.8	-46.0
Other operating expenses	6	-81.4	-67.3
Finance costs	7	-9.2	-7.4
Share of associates' profit/loss		0.5	0.0
Profit before taxes		**280.1**	**450.4**
Taxes	19	-58.2	-90.8
Profit for the period		**221.9**	**359.6**
Other comprehensive income	20–21		
Items reclassifiable to profit or loss			
Shadow accounting		-21.3	19.7
Available-for-sale financial assets		134.9	-333.5
Income tax relating to components of other comprehensive income		-27.0	66.7
Other comprehensive income, items reclassifiable to profit or loss net of tax, total		**86.6**	**-247.1**
TOTAL COMPREHENSIVE INCOME		**308.5**	**112.5**

Consolidated balance sheet

EUR million	Note	1–12/2019	1–12/2018
Assets			
Property, plant and equipment	8	14.3	4.5
Investment property	9	136.1	146.3
Intangible assets	10	8.9	5.0
Investments in associates	11	0.5	2.6
Financial assets	12–16	4,671.5	4,901.9
Investments related to unit-linked insurance and investment contracts	17	8,170.2	6,960.1
Reinsurers' share of insurance liabilities	24	0.7	0.9
Other assets	22	137.4	182.0
Cash and cash equivalents	23	952.1	585.5
Total assets		**14,091.9**	**12,788.8**
Liabilities			
Liabilities for insurance and investment contracts	24	3,925.8	4,221.5
Liabilities for unit-linked insurance and investment contracts	25	8,117.1	6,954.7
Financial liabilities	13, 26	364.0	133.5
Tax liabilities	18	120.8	95.8
Other liabilities	28	196.5	172.9
Total liabilities		**12,724.2**	**11,578.2**
Equity	30		
Share capital		40.4	40.4
Reserves		566.9	480.3
Retained earnings		760.4	689.9
Equity attributable to owners of the parent		**1,367.7**	**1,210.6**
Non-controlling interests		0.0	0.0
Total equity		**1,367.7**	**1,210.6**
Total equity and liabilities		**14,091.9**	**12,788.8**

Consolidated statement of changes in equity

EUR million	Share capital	Share premium account	Legal reserve	Retained earnings	Translation of foreign operations	Available-for-sale financial assets*	Available-for-sale financial assets** IFRS 4.30	**Total**
Equity at 1 January 2018	**40.4**	**98.9**	**29.9**	**630.5**	**0.0**	**626.7**	**-28.0**	**1,398.4**
Changes in equity								
Dividends				-300.0				**-300.0**
Total comprehensive income for the year				359.6		-266.8	19.7	**112.5**
Transfers between equity				-0.3				**-0.3**
Equity at 31 December 2018	**40.4**	**98.9**	**29.9**	**689.9**	**0.0**	**359.9**	**-8.3**	**1,210.6**
Changes in equity								
Dividends				-150.0				**-150.0**
Total comprehensive income for the year				221.9		107.9	-21.3	**308.5**
Transfers between equity				-1.3				**-1.3**
Equity at 31 December 2019	**40.4**	**98.9**	**29.9**	**760.4**	**0.0**	**467.8**	**-29.6**	**1,367.7**

* The amount recognised in equity from available-for-sale financial assets for the period totalled EUR 371.1 million (-217). The amount transferred to P&L amounted to EUR -134.9 million (-333.5).

** Policyholder's share, according to shadow accounting.

The amounts included in the translation of foreign operations and available-for-sale financial assets represent other comprehensive income for each component, net of tax.

Consolidated statement of cash flows

EUR million	1–12/2019	1–12/2018
Operating activities		
Profit before taxes	280.1	450.4
Adjustments		
Depreciation and amortisation	7.8	5.6
Unrealised gains and losses arising from valuation	-621.3	423.0
Realised gains and losses on investments	-394.3	-167.6
Change in liabilities for insurance and investment contracts	866.9	-463.2
Other adjustments	51.7	63.7
Adjustments total	**-89.2**	**-138.5**
Change (+/-) in assets of operating activities		
Investments *	212.8	-232.2
Other assets	37.0	-54.5
Total	**249.8**	**-286.8**
Change (+/-) in liabilities of operating activities		
Financial liabilities	-35.9	27.6
Other liabilities	7.2	-44.6
Paid interest and taxes	-138.1	-137.5
Total	**-166.9**	**-154.6**
Net cash from operating activities	**273.9**	**-129.4**
Investing activities		
Investments in group and associated undertakings	0.0	-6.1
Net investment in equipment and intangible assets	-4.7	-3.6
Net cash from investing activities	**-4.7**	**-9.7**

EUR million	1–12/2019	1–12/2018
Financing activities		
IFRS 16 lease liabilities	-1.6	-
Subordinated loan	249.1	-
Dividends paid	-150.0	-300.0
Net cash from financing activities	**97.5**	**-300.0**
Total cash flows	**366.6**	**-439.1**
Cash and cash equivalents at 1 January	585.5	1,024.7
Cash and cash equivalents at 31 December	952.1	585.5
Net change in cash and cash equivalents	**366.6**	**-439.1**
Additional information to the statement of cash flows:		
Interest income received	119.5	137.8
Interest expense paid	-63.6	-59.5
Dividend income received	51.7	55.7

* Investments include investment property, financial assets and investments related to unit-linked insurance and investment contracts.

The items of the statement of cash flows cannot be directly concluded from the balance sheets due to e.g. exchange rate differences.

Cash and cash equivalents include cash at bank and in hand EUR 952.1 million (585.5).

Notes to the accounts

SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Mandatum Life Group has prepared the consolidated financial statements for 2019 in compliance with the International Financial Reporting Standards (IFRSs). In preparing the financial statements, Mandatum Life has applied all the standards and interpretations relating to its business, adopted by the commission of the EU and effective at 31 December 2019.

From January 2019 on, Mandatum Life has applied the new standard IFRS 16 *Leases*. The standard superseded IAS 17 according to which leases were recognised either in the balance sheet as finance leases, or as other leases in which case the related liability was disclosed in the notes. The new standard requires all the leases, apart from low-value and short-term leases, to be recognised in the balance sheet. The related interest expenses and amortisations are recognised in the income statement.

In the transition, the modified retrospective approach was applied meaning that the comparison years were not restated. In addition, Mandatum Life applied the exemption, allowed by the standard, of not recognising short-term leases and leases of low-value assets in the balance sheet. The adoption of the standard had no material impact on the Mandatum Life's financial result.

During the financial year, other adopted standards or annual improvements to the standards had no material impact on the Mandatum Life's financial statements reporting.

In preparing the notes to the consolidated financial statements, attention has also been paid to the Finnish accounting and company legislation and applicable regulatory requirements.

The financial statements have for the most part been prepared under the historical cost convention. Exceptions are i.e. financial assets and liabilities at fair value through P&L, financial assets available-for-sale, hedged items in fair value hedges and share-based payments settled in equity instruments measured at fair value.

The consolidated financial statements are presented in euros (EUR), rounded to the nearest million, unless otherwise stated.

The Board of Directors of Mandatum Life accepted the financial statements for issue on 5 February 2020.

Consolidation

Subsidiaries

The consolidated financial statements combine the financial statements of Mandatum Life and all its subsidiaries. Entities qualify as subsidiaries if the Group has the controlling power. The Group exercises control if its shareholding is more than 50 per cent of the voting rights or it otherwise has the power to exercise control over the financial and operating policies of the entity. Subsidiaries are consolidated from the date on which control is transferred to the Group and cease to be consolidated from the date that control ceases.

The acquisition method of accounting is used for the purchase of subsidiaries. The cost of an acquisition is allocated to the identifiable assets, liabilities and contingent liabilities, which are measured at the fair value of the date of the acquisition. Possible non-controlling interest of the acquired entity is measured either at fair value or at proportionate interest in the acquiree's net assets. The acquisition-specific choice affects both the amount of recognised goodwill and non-controlling interest. The excess of the aggregate of consideration transferred, non-controlling interest and possibly previously held equity interest in the acquiree, over the Group's share of the fair value of the identifiable net assets acquired, is recognised as goodwill.

The accounting policies used throughout the Group for the purposes of consolidation are consistent with respect to similar business activities and other events taking place in similar conditions. All intra-group transactions and balances are eliminated upon consolidation.

Associates

Associates are entities in which the Group has significant influence, but no control over the financial management and operating policy decisions. Unless otherwise demonstrated, this is generally presumed when the Group holds in excess of 20 per cent, but no more than 50 per cent, of the voting rights of an entity. Investments in associates are treated by the equity method of accounting, in which the investment is initially recorded at cost and increased (or decreased) each year by the Group's share of the post-acquisition net income (or loss), or other movements reflected directly in the equity of the associate. If the Group's share of the associate's loss exceeds the carrying amount of the investment, the investment is carried at zero value, and the loss in excess is consolidated only if the Group is committed to fulfilling the obligations of the associate. Goodwill arising on the acquisition is included in the cost of the investment. Unrealised gains (losses) on transactions are eliminated to the extent of the Group's interest in the entity.

The share of associates' profit or loss, equivalent to the Group's holding, is presented as a separate line in the income statement. The Group's share of associate's changes in other comprehensive income is presented in the Group's other comprehensive income items.

If there is any indication that the value of the investment may be impaired, the carrying amount is tested by comparing it with its recoverable amount. The recoverable amount is the higher of its value in use or its fair value less costs to sell. If the recoverable amount is less than its carrying amount, the carrying amount is reduced to its recoverable amount by recognising an impairment loss in the profit/loss. If the recoverable amount later increases and is greater than the carrying amount, the impairment loss is reversed through profit and loss.

Foreign currency translation

The consolidated financial statements are presented in euro, which is the functional and reporting currency of the Group and the parent company. Items included in the financial statements of each of the Group entities are measured using their functional currency, being the currency of the primary economic environment in which the entity operates. Foreign currency transactions are translated into the appropriate functional currency using the exchange rates prevailing at the dates of transactions or the average rate for a month. The balance sheet items denominated in foreign currencies are translated into the functional currency at the rate prevailing at the balance sheet date.

Exchange differences arising from translation of transactions and monetary balance sheet items denominated in foreign currencies into functional currency are recognised as translation gains and losses in profit or loss. Exchange differences arising from equities classified as available-for-sale financial assets are included directly in the fair value reserve in equity.

The income statements of Group entities whose functional currency is other than euro are translated into euro at the average rate for the period, and the balance sheets at the rates prevailing at the balance sheet date. The resulting exchange differences are included in equity and their change in other comprehensive income. When a subsidiary is divested entirely or partially, the cumulative exchange differences are included in the income statement under sales gains or losses.

Goodwill and fair value adjustments arising on the acquisition of a foreign entity are treated as if they were assets and liabilities of the foreign entity. Exchange differences resulting from the translation of these items at the exchange rate of the balance sheet date are included in equity and their change in other comprehensive income. Exchange differences that existed at the Group's IFRS transition date, 1 January 2004, are deemed to be zero, in accordance with the exemption permitted by IFRS.

Segment reporting

Mandatum Life Group's segmentation is based on the division by the product group of domestic business and the other geographical organisational structure. The reported segments are "Unit linked contracts" (Finland), the segregated fund (Finland), other businesses (Finland) and the operations outside Finland.

The investment risks vary by a product group. The segment results are reported to the management of the company as a part of management reporting.

Return on investments covering unit linked contracts and commissions received from fund management companies have been allocated to the segment "Unit linked contracts" (Finland). Allocation of operational expenses and tangible and intangible assets has been carried out through internal cost accounting.

The primary segmentation comprises a substantial part of the geographical division, since operations outside Finland represents mainly the operations in Baltic countries. In connection with the expansion of the foreign operations shall also the division by country be expanded. Inter-segment transactions, assets and liabilities are eliminated in the consolidated financial statements on a line-by-line basis.

In the inter-segment and inter-company pricing, for both domestic and cross border transactions, market-based prices are applied. The pricing is based on the code of conduct on Transfer Pricing Documentation in the EU and OECD guidelines.

Interest and dividends

Interest income and expenses are recognised in the income statement using the effective interest rate method. This method recognises income and expenses on the instrument evenly in proportion to the amount outstanding over the period to maturity. Dividends on equity securities are recognised as revenue when the right to receive payment is established.

Fees and commissions

The fees and transaction costs of financial instruments measured at fair value through profit or loss are recognised in profit or loss when the instrument is initially recognised.

The acquisition costs are treated as fee and commission expense under 'Other operating expenses'.

Other fees and commissions paid for investment activities are included in 'Net income from investments'.

Insurance premiums

Liabilities arising from insurance and investment contracts count as long-term liabilities. Therefore, the insurance premium and related claims are usually not recognised in the same accounting period. Depending on the type of insurance, premiums are primarily recognised in premiums written when the premium has been paid. In group pension insurance, a part of the premiums is recognised already when charged.

The change in the provision for unearned premiums is presented as an expense under 'Change in insurance and investment contract liabilities'.

Financial assets and liabilities

Based on the measurement practice, financial assets and liabilities are classified in the following categories upon the initial recognition: financial assets at fair value through profit or loss, loans and receivables, available-for-sale financial assets, financial liabilities at fair value through profit or loss, and other liabilities.

According to the Group's risk management policy, investments are managed at fair value in order to have the most realistic and real-time picture of investments, and they are reported to the Group key management at fair value. Investments comprise debt and equity securities. They are mainly classified as financial assets available-for-sale or at fair value through P&L.

A large majority of Mandatum Life's financial assets are valued at fair value. The valuation is based on either published price quotations or valuation techniques based on market observable inputs, where available. For a limited amount of assets the value needs to be determined using other techniques. The financial instruments measured at fair value have been classified into three hierarchy levels in the notes, depending on, for example, if the market for the instrument is active, or if the inputs used in the valuation technique are observable.

On level 1, the measurement of the instrument is based on quoted prices in active markets for identical assets or liabilities.

On level 2, inputs for the measurement of the instrument include also other than quoted prices observable for the asset or liability, either directly or indirectly by using valuation techniques.

On level 3, the measurement is based on other inputs rather than observable market data. The majority of Mandatum Life's level 3 assets are private equity and alternative funds.

For private equity funds the valuation of the underlying investments is conducted by the fund manager who has all the relevant information required in the valuation process. The valuation is usually updated quarterly based on the value of the underlying assets and the amount of debt in the fund. There are several valuation methods, which can be based on, for example, the acquisition value of the investments, the value of publicly traded peer companies, the multiple based valuation or the cashflows of the underlying investments. Most private equity funds follow the International Private Equity and Venture Capital (IPEV) guidelines which give detailed instructions on the valuation of private equity funds.

For alternative funds the valuation is also conducted by the fund managers. Alternative funds often have complicated structures and the valuation is dependent on the nature of the underlying investments. There are many different valuation methods that can be used, for example, the method based on the cashflows of the underlying investments. The operations and valuation of alternative funds are regulated for example by the Alternative Investment Fund Managers Directive (AIFMD), which determines the principles and documentation requirements of the valuation process.

IFRS 4 *Insurance Contracts* provides that insurance contracts with a discretionary participation feature are measured in accordance with national valuation principles rather than at fair value. These contracts and investments made to cover shareholders' equity are managed in their entirety and are classified mainly as available-for-sale financial assets. Financial assets designated as at fair value through profit or loss are investments related to unit-linked insurance, presented separately in the balance sheet. The corresponding liabilities are also presented separately. In addition, investments classified as the financial assets of foreign subsidiaries, and financial instruments in which embedded derivatives have not been separated from the host contract have been designated as at fair value through profit or loss.

Recognition and derecognition

Purchases and sales of financial assets at fair value through profit or loss and available-for-sale financial assets are recognised and derecognised on the trade date, which is the date on which the Group commits to purchase or sell the asset. Loans and receivables are recognised when cash is advanced.

Financial assets and liabilities are offset and the net amount is presented in the balance sheet only when the Group has a legally enforceable right to set off the recognised amounts and it intends to settle on a net basis, or to realise the asset and settle the liability simultaneously.

Financial assets are derecognised when the contractual rights to receive cash flows have expired or the Group has transferred substantially all the risks and rewards of ownership. Financial liabilities are derecognised when the obligation specified in the contract is discharged or cancelled or expired.

Financial assets and financial liabilities at fair value through profit or loss

In Sampo Group, financial assets and liabilities at fair value through profit of loss comprise financial assets held for trading and financial assets designated as at fair value through profit or loss.

Financial assets held for trading

Financial asset that is held for the purpose of selling or buying in the short term or belongs to a portfolio that is managed together or is repeatedly used for short-term profit taking, is classified as an asset held for trading. Gains and losses arising from changes in fair value, or realised on disposal, together with related interest income and dividend, are recognised in the income statement.

Also, derivative instruments that are not designated as hedges and do not meet the requirements for hedge accounting are classified as financial assets for trading purposes.

Financial derivatives held for trading are initially recognised at fair value. Derivative instruments are carried as assets when the fair value is positive and as liabilities when the fair value is negative. Derivative instruments are recognised at fair value, and gains and losses arising from changes in fair value together with realised gains and losses are recognised in the income statement.

Financial assets designated as at fair value through profit or loss

Financial assets designated as at fair value through profit or loss are assets which, at inception, are irrevocably designated as such. They are initially recognised at their fair value. Gains and losses arising from changes in fair value, or realised on disposal, together with the related interest income and dividends, are recognised in the income statement.

Loans and receivables

Loans and receivables comprise non-derivative financial assets with fixed or determinable payments that are not quoted in an active market and that the Group does not intend to sell immediately or in the short term. The category also comprises cash.

Loans and receivables are initially recognised at their fair value, added by transaction costs directly attributable to the acquisition of the asset. Loans and receivables are subsequently measured at amortised cost using the effective interest rate method.

Available-for-sale financial assets

Available-for-sale financial assets are non-derivative financial investments that are designated as available for sale and or are not categorised into any other category. Available-for-sale financial assets comprise debt and equity securities.

Available-for-sale financial assets are initially recognised fair value, including direct and incremental transaction costs. They are subsequently remeasured at fair value, and the changes in fair value are recorded in other comprehensive income and presented in the fair value reserve, taking the tax effect into account. Interest income and dividends are recognised in profit or loss. When the available-for-sale assets are sold, the cumulative change in the fair value is transferred from equity and recognised together with realised gains or losses in profit or loss. The cumulative change in the fair value is also transferred to profit or loss when the assets are impaired, and the impairment loss is recognised. Exchange differences due to available-for-sale monetary balance sheet items are always recognised directly in profit or loss.

Other financial liabilities

Other financial liabilities comprise debt securities in issue and other financial liabilities.

Other financial liabilities are recognised when the consideration is received and measured to amortised cost, using the effective interest rate method.

If debt securities issued are redeemed before maturity, they are derecognised and the difference between the carrying amount and the consideration paid at redemption is recognised in profit or loss.

Fair value

The fair value of financial instruments is determined primarily by using quoted prices in active markets. Instruments are measured either at the bid price or at the last trade price, if there is an auction policy in the stock market of the price source. The financial derivatives are also measured at the last trade price. If the financial instrument has a counter-item that will offset its market risk, the same price source is used in assets and liabilities to that extent. If a published price quotation does not exist for a financial instrument in its entirety, but active markets exist for its component parts, the fair value is determined on the basis of the relevant market prices of the component parts.

If a market for a financial instrument is not active, or the instrument is not quoted, the fair value is established by using generally accepted valuation techniques including recent arm's length market transactions between knowledgeable, willing parties, reference to the current fair value of another instrument that is substantially the same, discounted cash flow analysis and option pricing models.

If the fair value of a financial asset cannot be determined, historical cost is deemed to be a sufficient approximation of fair value. The amount of such assets in the Group balance sheet is immaterial.

Impairment of financial assets

Mandatum Life assesses at the end of each reporting period whether there is any objective evidence that a financial asset, other than those at fair value through P&L, may be impaired. A financial asset is impaired and impairment losses are incurred, if there is objective evidence of impairment as a result of one or more loss events that occurred after the initial recognition of the asset, and if that event has an impact, that can be reliably estimated, on the estimated future cash flows of the financial asset.

Financial assets carried at amortised cost

There is objective evidence of impairment, if an issuer or debtor e.g. encounters significant financial difficulties that will lead to insolvency and to estimation that the customer will probably not be able to meet the obligations to the Group. Objective evidence is first assessed for financial assets that are individually significant, and individually and collectively for financial assets not individually significant.

When there is objective evidence of impairment of a financial asset carried at amortised cost, the amount of the loss is measured as the difference between the receivable's carrying amount and the present value of estimated future cash flows discounted at the receivable's original effective interest rate. The difference is recognised as an impairment loss in profit or loss. The impairment is assessed individually.

If, in a subsequent period, the amount of the impairment loss decreases, and the decease can objectively be related to an event occurring after the impairment was recognised (e.g. the default status is removed), the previously recognised impairment loss shall be reversed through profit or loss.

Available-for-sale financial assets

Whether there is objective evidence of an impairment of available-for-sale financial assets, is evaluated in a separate assessment, which is done if the credit rating of an issuer has declined or the entity is placed on watch list, or there is a significant or prolonged decline in the fair value of an equity instrument below its original acquisition cost.

The decision on whether the impairment is significant or prolonged requires an assessment of the management. The assessment is done case by case and with consideration paid not only to qualitative criteria but also historical changes in the value of an equity as well as time period during which the fair value of an equity security has been lower than the acquisition cost. The impairment is normally assessed to be significant, if the fair value of a listed equity or participation decreases below the average acquisition cost by 20 per cent and prolonged, when the fair value has been lower than the acquisition cost for over 12 months.

As there are no quoted prices available in active markets for unquoted equities and participations, the aim is to determine their fair value with the help of generally accepted valuation techniques available in the markets. The most significant share of unquoted equities and participations comprise the private equity and venture capital investments. They are measured in accordance with the generally accepted common practice, International Private Equity and Venture Capital Guidelines (IPEV).

The significance and prolongation of the impairment in the last-mentioned cases is assessed case by case, taking into consideration special factors and circumstances related to the investment. Mandatum Life invests in private equity and venture capital in order to keep them to the end of their life cycle, so the typical lifetime is 10–12 years. In general, a justifiable assessment of a potential impairment may only be done towards the end of the life cycle. However, if additionally there is a well-founded reason to believe that an amount equivalent to the acquisition cost will not be recovered when selling the investment, an impairment loss is recognised.

An impairment on equity funds is recognised in line with the principles above when the starting year of the fund is at least 10 years old and the carrying amount of the fund is maximum EUR 500,000. In these cases, both the fair value and the carrying amount are booked to zero. An impairment is only performed to those funds for which the benchmarks are met in all Sampo Group companies' portfolios.

In the case of debt securities, the amount of the impairment loss is assessed as the difference between the acquisition cost, adjusted with capital amortisations and accruals, and the fair value at the review time, reduced by previously in profit or loss recognised impairment losses.

When assessed that there is objective evidence of impairment in debt or equity securities classified as financial assets available-for-sale, the cumulative loss recognised in other comprehensive income is transferred from equity and recognised in profit or loss as an impairment loss.

If, in a subsequent period, the fair value of a debt security increases and the increase can objectively be related to an event occurring after the impairment loss was recognised in profit or loss, the impairment loss shall be reversed by recognising the amount in profit or loss.

If the fair value of an equity security increases after the impairment loss was recognised in profit or loss, the increase shall be recognised in other comprehensive income. If the value keeps decreasing below the acquisition cost, an impairment loss is recognised through profit or loss.

Derivative financial instruments and hedge accounting

Derivative financial instruments are classified as those held for trading and those held for hedging, including interest rate derivatives, credit risk derivatives, foreign exchange derivatives, equity derivatives and commodity derivatives. Derivative instruments are measured initially at fair value. All derivatives are carried as assets when fair value is positive and as liabilities when fair value is negative.

Derivatives held for trading

Derivative instruments that are not designated as hedges and embedded derivatives separated from a host contract are treated as held for trading. They are measured at fair value and the change in fair value, together with realised gains and losses and interest income and expenses, is recognised in profit or loss.

If derivatives are used for hedging, but they do not qualify for hedge accounting as required by IAS 39, they are treated as held for trading.

Hedge accounting

The Group may hedge its operations against interest rate risks, currency risks and price risks through fair value hedging and cash flow hedging. Cash flow hedging is used as a protection against the variability of the future cash flows, while fair value hedging is used to protect against changes in the fair value of recognised assets or liabilities. During the financial year, the fair value hedging has been applied.

Hedge accounting applies to hedges that are effective in relation to the hedged risk and meet the hedge accounting requirements of IAS 39. The hedging relationship between the hedging instrument and the hedged item, as well as the risk management objective and strategy for undertaking the hedge, are documented at the inception of the hedge. In addition, the effectiveness of a hedge is assessed both at inception and on an ongoing basis, to ensure that it is highly effective throughout the period for which it was designated. Hedges are regarded as highly effective in offsetting changes in fair value or the cash flows attributable to a hedged risk within a range of 80–125 per cent.

Fair value hedging

In accordance with the risk management principles, fair value hedging is used to hedge changes in fair values resulting from changes in price, interest rate or exchange rate levels. The hedging instruments used include foreign exchange forwards, interest rate swaps, interest rate and cross currency swaps and options, approved by the management.

Changes in the fair value of derivative instruments that are documented as fair value hedges and are effective in relation to the hedged risk are recognised in profit or loss. In addition, the hedged assets and liabilities are measured at fair value during the period for which the hedge was designated, with changes in fair value recognised in profit or loss.

Leases

Group as lessee

All lease contracts are primarily recognised in the balance sheet in accordance with the new IFRS 16 *Leases*. The only optional exemptions include certain short-term or low-value contracts for which the lease payments can be recognised as an expense on a straight-line basis over the lease term.

Right-of-use assets related to lease contracts (right to use an underlying asset) are recognised in the asset side as part of Property, Plant and Equipment and the corresponding lease liabilities in the liability side as part of Other liabilities. Right-of-use asset is recognised at the commencement date of the lease and measured at cost that includes the amount of the initial measurement of the liability and potential prepaid rents to the lessor. Lease liability is also recognised at the commencement date and measured at the present value of the lease payments.

Depreciations on right-of-use assets and interests on the lease liabilities are recognised in the P&L.

Group as lessor

Leases are included in 'Investment property' in the balance sheet. They are depreciated over their expected useful lives on a basis consistent with similar owned property, plant and equipment, and the impairment losses are recognised on the same basis as for these items. Rental income is recognised on a straight-line basis over the lease term in profit or loss.

Intangible assets

Other intangible assets

IT software and other intangible assets, whether procured externally or internally generated, are recognised in the balance sheet as intangible assets with finite useful lives, if it is probable that the expected future economic benefits that are attributable to the assets will flow to the Group and the cost of the assets can be measured reliably. The cost of internally generated intangible assets is determined as the sum of all costs directly attributable to the assets. Research costs are recognised as expenses in profit or loss as they are incurred. Costs arising from development of new IT software or from significant improvement of existing software are recognised only to the extent they meet the above-mentioned requirements for being recognised as assets in the balance sheet.

Intangible assets with finite useful lives are measured at historical cost less accumulated amortisation and impairment losses. Intangible assets are amortised on a straight-line basis over the estimated useful life of the asset. The estimated useful lives by asset class are as follows:

IT software	4–10 years
Other intangible assets	3–10 years

Property, plant and equipment

Property, plant and equipment comprise properties occupied for Mandatum Life's own activities, office equipment, fixtures and fittings, and furniture. Classification of properties as those occupied for own activities and those for investment activities is based on the square metres in use. If the proportion of a property in Mandatum Life's use is no more than 10 per cent, the property is classified as an investment property.

Property, plant and equipment are measured at historical cost less accumulated depreciation and impairment losses.

Improvement costs are added to the carrying amount of a property when it is probable that the future economic benefits that are attributable to the asset will flow to the entity. Costs for repairs and maintenance are recognised as expenses in the period in which they were incurred.

Items of property, plant and equipment are depreciated on a straight-line basis over their estimated useful life. In most cases, the residual value is estimated at zero. Land is not depreciated. Estimates of useful life are reviewed at financial year-ends and the useful life is adjusted if the estimates change significantly. The estimated useful lives by asset class are as follows:

Residential, business premises and offices	20–60 years
Industrial buildings and warehouses	30–60 years
Components of buildings	10–15 years
IT equipment and motor vehicles	3–5 years
Other equipment	3–10 years

Depreciation of property, plant or equipment will be discontinued, if the asset in question is classified as held for sale in accordance with IFRS 5 *Non-current Assets Held for Sale and Discontinued Operations*.

Impairment of intangible assets and property, plant and equipment

At each reporting date the Group assesses whether there is any indication that an intangible asset or an item of property, plant or equipment may be impaired. If any such indication exists, the Group will estimate the recoverable amount of the asset. In addition, goodwill, intangible assets not yet available for use and intangible assets with an indefinite useful life will be tested for impairment annually, independent of any indication of impairment. For impairment testing the goodwill is allocated to the cash-generating units of the Group from the date of acquisition. In the test the carrying amount of the cash-generating unit, including the goodwill, is compared with its recoverable amount.

The recoverable amount is the higher of an asset's fair value less costs to sell and its value in use. The value in use is calculated by estimating future net cash flows expected to be derived from an asset or a cash-generating unit, and by discounting them to their present value using a pre-tax discount rate. If the carrying amount of an asset is higher than its recoverable amount, an impairment loss is recognised in profit or loss. In conjunction with this, the impaired asset's useful life will be re-determined.

If there is any indication that an impairment loss recognised for an asset in prior periods may no longer exist or may have decreased, the recoverable amount of the asset will be estimated. If the recoverable amount of the asset exceeds the carrying amount, the impairment loss is reversed, but no more than to the carrying amount which it would have been without recognition of the impairment loss. Impairment losses recognised for goodwill are not reversed.

Investment property

Investment property is held to earn rentals and for capital appreciation. The investment property is measured the same way as property, plant and equipment. The depreciation periods and methods and the impairment principles are also the same as those applied to corresponding property occupied for own activities.

The fair value of investment property is estimated using a method based on estimates of future cash flows and a comparison method based on information from actual sales in the market. The fair value of investment property is presented in the Notes.

The valuation takes into account the characteristics of the property with respect to location, condition, lease situation and comparable market information regarding rents, yield requirements and unit prices. During the financial year, the valuations were conducted by the Group's internal resources.

Provisions

A provision is recognised when the Group has a present legal or constructive obligation as a result of a past event, and it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and the Group can reliably estimate the amount of the obligation. If it is expected that some or all of the expenditure required to settle the provision will be reimbursed by another party, the reimbursement will be treated as a separate asset only when it is virtually certain that the Group will receive it.

Insurance and investment contracts

Insurance contracts are treated, in accordance with IFRS 4, either as insurance or investment contracts. Under the standard, insurance contracts are classified as insurance contracts if significant insurance risk is transferred between the policyholder and the insurer. If the risk transferred on the basis of the contract is essentially financial risk rather than significant insurance risk, the contract is classified as an investment contract. Classification of a contract as an insurance contract or investment contract determines the measurement principle applied to it.

Mandatum Life treats the liabilities arising from contracts in the first phase of the standard according to national accounting standards.

The risks involved in insurance and investment contracts are widely elaborated in the Risk Management section.

Reinsurance contracts

A reinsurance contract is a contract which meets the IFRS 4 requirements for insurance contracts and on the basis of which Mandatum Life Group (the cedant) may receive compensation from another insurer (the reinsurer), if it becomes liable for paying compensation based on other insurance contracts it has issued. Such compensation received on the basis of reinsurance contracts is included in the balance sheet under 'Reinsurers' share of insurance liabilities' and 'Other assets'. The former item includes the reinsurers' share of the provisions for unearned premiums and claims outstanding in the Group's reinsured insurance contracts, while the latter includes short-term receivables from reinsurers.

When the Group itself has to pay compensation to another insurer on the basis of a reinsurance contract, the liability is recognised in the item 'Other liabilities'.

Receivables and liabilities related to reinsurance are measured uniformly with the cedant's receivables and liabilities. Reinsurance receivables are tested annually for impairment. Impairment losses are recognised through profit or loss, if there is objective evidence indicating that the Group (as the cedant) will not receive all amounts of money it is entitled to on a contractual basis.

Classification of insurance contracts

Policies issued are classified as either insurance contracts or investment contracts. Insurance contracts are contracts that carry significant insurance risk or contracts in which the policyholder has the right to change the contract by increasing the risk. As capital redemption contracts do not carry insurance risk, these contracts are classified as investment contracts.

The discretionary participation feature (DPF) of a contract is a contractual right held by a policyholder to receive additional benefits, as a supplement to the guaranteed minimum benefits. The supplements are bonuses based on the reserves of policies credited to the policy reserve, additional benefits in the case of death, or lowering of insurance premiums. In Mandatum Life, the principle of fairness specifies the application of this feature. In unit-linked contracts the policyholder carries the investment risk by choosing the investment funds linked to the contracts.

Measurement of insurance and investment contracts

National accounting standards in accordance with IFRS 4 Insurance contracts are applied to all insurance contracts and investment contracts with DPF.

All contracts, except unit-linked contracts and the assumed reinsurance, include DPF. In those unit-linked contracts which are not insurance contracts, the policyholder has the possibility to transfer the return on savings from unit-linked schemes to guaranteed interest with DPF. Thus, the same standard is applied to these contracts as to contracts with DPF.

The surrender right, guaranteed interest and the unbundling of the insurance component from the deposit component and similar features are not separated and measured separately.

Regarding the group pension portfolio transferred from Suomi Mutual (=segregated portfolio), a so-called shadow accounting is applied, as permitted in IFRS 4.30, by adjusting the equity with the amount of unrealised gains and losses of the agreement. The equity is adjusted with an amount that unrealised gains or losses would have affected the Segregated Portfolio in accordance with the profit distribution policy of the Segregated Portfolio, if the gains or losses had been realised at the balance sheet date.

Insurance and investment contract liabilities and reinsurance assets

Liabilities arising from insurance and investment contracts consist of provisions for unearned premiums and outstanding claims. In the life insurance business, various methods are applied in calculating liabilities which involve assumptions on matters such as mortality, morbidity, the yield level of investments, future operating expenses and the settlement of claims.

Changes in the liabilities of reinsurance have been calculated at variable rates of exchange.

In direct insurance, the insurance liability is calculated by policy, while in reinsurance it is calculated on the basis of the reports of the ceding company or the company's own bases of calculation.

The interest rate used in discounting liabilities is, at most, the maximum rate accepted by the authorities in each country. The guaranteed interest used in the direct insurance premium basis varies on the basis of the starting date of the insurance from zero to 4.5 per cent. The interest rate used in discounting liabilities is the same or lower than that used in premium calculation. Most of the liabilities of the accrued benefits of pension business with DPF are discounted by an interest rate of 3.5 per cent, also being the highest discount rate used. In addition, Mandatum Life has for the years 2020 - 2021 lowered the maximum rate to 0.25 per cent and for 2022 to 1.25 per cent. From Suomi Mutual received group pension liabilities of the accrued benefits are discounted by 0.0 per cent.

Due to the difference in the discount rate of liabilities and the guaranteed interest of 4.5 per cent and 3.5 per cent, supplementary provisions for guaranteed interest have been added to technical provisions.

Mortality assumptions have an essential effect on the amount of liability, particularly in group pension insurance, the liability of which accounts for about 35 per cent of the technical provisions of the company. A so-called cohort mortality model is used in calculating the group pension insurance liability, incorporating the insured person's birth year in addition to his or her age and sex. The cohort mortality model assumes that life expectancy increases by one year over a 10-year period.

For unit-linked contracts, all the liabilities and the assets covering the unit-linked insurance are matched. Both the liabilities and the assets have been presented in the Notes to the financial statements. In calculating the provision for claims outstanding of direct insurance, discounting is applied only in connection with the liabilities of pensions whose payment has commenced. The liabilities of assumed reinsurance are based on the reports of the ceding company and on an estimate of claims which have not yet been settled. The assets covering the unit-linked liabilities include debt securities issued by the Group companies. These have not been eliminated. Elimination would lead to misleading information, as the policy holders carry the investment risk related to these investments, and to a mismatch between the unit-linked liabilities and assets covering them.

The provision for claims outstanding is intended to cover the anticipated future payments of all claims incurred.

The provision for claims outstanding includes claim payments plus all costs of claim settlements.

The amounts of short- and long-term liabilities in technical provisions are determined annually.

The Risk Management section elaborates on the change of technical provisions and their forecast annual maturities.

Liability adequacy test

A liability adequacy test is applied to all portfolios and the need for augmentation is checked, company by company, on the basis of the adequacy of the whole technical provisions. The test includes all the expected contractual cash flows for non-unit-linked liabilities. The expected contractual cash flows include expected premiums, claims, bonuses and expenses. The claims have been estimated including surrenders and other insurance transactions based on historical data. The amounts of claims include the guaranteed interest and an estimation of future bonuses. The present values of the cash flows have been discounted to the balance sheet date.

For the unit-linked business, the present values of the insurance risk and expense results are calculated correspondingly. If the aggregate amount of the liability for the unit-linked and other business presumes an augmentation, the liability is increased by the amount shown by the test and recognised in profit or loss.

Principle of fairness and Profit distribution policy for the segregated group pension insurance portfolio

According to Chapter 13, Section 2 of the Finnish Insurance Companies' Act, the Principle of Fairness must be observed in life insurance and investment contracts with a discretionary participation feature. If the solvency requirements do not prevent it, a reasonable part of the surplus has to be returned to these policies as bonuses.

Mandatum life aims at giving a total return before charges and taxes on the original insurance portfolio's policyholders' savings in contracts with DPF that is at least the yield of those long term bonds, which are considered to have lowest risk. At the moment we consider German government bonds to be the most risk free long term bonds available. Nevertheless, Finnish government bonds are used as target levels at the moment. The total return consists of the guaranteed interest rate and bonuses determined annually. Continuity is pursued in the level of bonuses. The aim is to maintain the company's solvency status on such a level that it neither limits the giving of bonuses to policyholders nor the distribution of profit to shareholders. The principle is explained in detail on the company's website.

On 30 December 2014, Mandatum Life took over control of Suomi Mutual's group pension insurance portfolio (Insurance Portfolio), which has been segregated from Mandatum Life's other insurance portfolio. In connection with the transfer, it was agreed that the assets transferred along with the Insurance Portfolio will be used to secure the benefits under the transferred Insurance Portfolio. To that end, and in order to ensure what has been agreed on, the Insurance Portfolio and the assets covering it have been segregated from Mandatum Life's other insurance portfolio and assets. It has furthermore been agreed that a profit distribution policy that is independent from Mandatum Life's other insurance portfolio shall be applied, as described further below, to the Insurance Portfolio and the assets covering it.

In IFRS accounting, when the realised investment return exceeds the return requirement based on the discount rate for technical provisions, 65 per cent of the surplus amount is distributed to the insurance portfolio. The discount rate for technical provisions that is applied in the profit distribution policy is always based on the discount rate for technical provisions used on the first day of the calendar year. The insurance portfolio's share of the investment returns that exceed the discount rate can be distributed, for example, in the form of annual client bonuses, one-time benefit increases, or it can be set aside in a reserve for future bonuses, which is used to equalise the annual client bonuses and safeguard the level of client bonuses and their continuity.

In IFRS accounting, when the realised investment return is less than the return requirement based on the discount rate for technical provisions, said return requirement is financed primarily from the provision for future bonuses and thereafter from Mandatum Life's capital and reserves. The share of the provision for future bonuses that has been set aside, by a separate decision by Mandatum Life, for the Insurance Portfolio transferred from Suomi Mutual shall not be used to finance the above-mentioned return requirement.

The discount rate to be applied in the profit distribution policy of the Insurance Portfolio transferred from Suomi Mutual is 0.50 per cent for 2019. The company's website provides a more detailed description of the profit distribution policy for the segregated group pension portfolio, as well as an explanation of the bonuses paid.

The legislation of Estonia, Latvia and Lithuania respectively does not contain provisions corresponding to the Principle of Fairness.

Employee benefits

Post-employment benefits

Post-employment benefits include pensions and life insurance.

Mandatum Life has defined contribution plans. The most significant defined contribution plan is that arranged through the Employees' Pensions Act (TyEL) in Finland.

In the defined contribution plans, the Group pays fixed contributions to a pension insurance company and has no legal or constructive obligation to pay further contributions. The obligations arising from a defined contribution plan are recognised as an expense in the period that the obligation relates to.

The Group also has certain voluntary defined benefit plans. These are intra-Group, included in the insurance liabilities of Mandatum Life and have no material significance.

Termination benefits

An obligation based on termination of employment is recognised as a liability when the Group is verifiably committed to terminate the employment of one or more persons before the normal retirement date or to grant benefits payable upon termination as a result of an offer to promote voluntary redundancy. As no economic benefit is expected to flow to the employer from these benefits in the future, they are recognised immediately as an expense. Obligations maturing more than 12 months later than the balance sheet date are discounted. The benefits payable upon termination at Sampo are the monetary and pension packages related to redundancy.

Share-based payments

During the financial year, Sampo had four valid share-based incentive schemes settled in cash (the long-term incentive schemes 2014 I, 2014 II,2017 I and 2017 II for the management and key employees).

The schemes have been measured at fair value at the grant date and at every reporting date thereafter.

In Mandatum Life Group, a little less than 20 persons included in the schemes at the end of year 2019.

In the schemes settled in cash, the valuation is recognised as a liability and changes recognised through profit or loss.

The fair value of the schemes has been determined using the Black-Scholes-pricing model. The fair value of the market-based part of the incentive takes into consideration the model's forecast concerning the number of incentive units to be paid as a reward. The effects of non-market based terms are not included in the fair value of the incentive; instead, they are taken into account in the number of those incentive units that are expected to be exercised during the vesting period. In this respect, the Group will update the assumption on the estimated final number of incentive units at every interim or annual balance sheet date.

Income taxes

Item Tax expenses in the income statement comprise current and deferred tax. Tax expenses are recognised through profit or loss, except for items recognised directly in equity or other comprehensive income, in which case the tax effect will also be recognised those items. Current tax is calculated based on the valid tax rate of each country. Tax is adjusted by any tax related to previous periods.

Deferred tax is calculated on all temporary differences between the carrying amount of an asset or liability in the balance sheet and its tax base. Deferred tax is not recognised on non-deductible goodwill impairment, and nor is it recognised on the undistributed profits of subsidiaries to the extent that it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred tax is calculated by using the enacted tax rates prior to the balance sheet date. A deferred tax asset is recognised to the extent that it is probable that future taxable income will be available against which a temporary difference can be utilised.

Equity

Dividends are recognised in equity in the period when they are approved by the Annual General Meeting.

Financial assets held for trading

Cash and cash equivalents comprise cash and short-term deposits (3 months).

Mandatum Life presents cash flows from operating activities using the indirect method in which the profit (loss) before taxation is adjusted for the effects of transactions of a non-cash nature, deferrals and accruals, and income and expense associated with investing or financing cash flows.

In the cash flow statement, interest received and paid is presented in cash flows from operating activities. In addition, the dividends received are included in cash flows from operating activities. Dividends paid are presented in cash flows from financing.

Accounting policies requiring management judgement and key sources of estimation uncertainties

Preparation of the accounts in accordance with the IFRS requires management estimates and assumptions that affect the revenue, expenses, assets, liabilities and contingent liabilities presented in the financial statements. Judgement is needed also in the application of accounting policies. The estimates made are based on the best information available at the balance sheet date. The estimation is based on historical experiences and most probable assumptions concerning the future at the balance sheet date. The actual outcome may deviate from results based on estimates and assumptions. Any changes in the estimates will be recognised in the financial year during which the estimate is reviewed and in all subsequent periods.

Mandatum Life's main assumptions concerning the future and the key uncertainties related to balance sheet estimates are related, for example, to assumptions used in actuarial calculations, determination of fair values of non-quoted financial assets and liabilities and investment property and determination of the impairment of financial assets and intangible assets. From Mandatum Life's perspective, accounting policies concerning these areas require most significant use of estimates and assumptions.

Actuarial assumptions

The actuarial assumptions applied to life insurance liabilities are discussed in more detail under 'Insurance and investment contract liabilities and reinsurance assets'.

Determination of fair value

The fair value of any non-quoted financial assets is determined using valuation methods that are generally accepted in the market. These methods are discussed in more detail above under 'Fair value'.

Fair values of investment property have been determined internally during the financial year on the basis of comparative information derived from the market. They include management assumptions concerning market return requirements and the discount rate applied.

Impairment tests

Goodwill, intangible assets not yet available for use, and intangible assets with an indefinite useful life are tested for impairment at least annually. The recoverable amounts from cash-generating units have mainly been determined using calculations based on value in use. These require management estimates on matters such as future cash flows, the discount rate, and general economic growth and inflation.

Application of new or revised IFRSs and interpretations

The Group will apply the following new or amended standards and interpretations related to the Group's business in later financial years when they become effective, or if the effective date is other than the beginning of the financial year, during the financial year following the effective date.

The amendments to IFRS 9 Financial Instruments (effective for annual periods beginning on 1 January 2018 or after) supersede IAS 39 Financial Instruments: Recognition and Measurement. Group is going to utilise the temporary exception option, outlined in the next chapter, and apply the standard on the annual period beginning on 1 January 2022.The new standard changes the classification and measurement of financial assets and includes a new impairment model based on expected credit losses. The hedge accounting will continue to have three different hedging relationships.

As the upcoming IFRS 4 superseding standard IFRS 17 Insurance Contracts (by IASB tentative decision effective for annual periods beginning on 1 January 2022 or after) will have an impact on the insurance liabilities valuation, the insurance companies have been given additional options regarding the adoption of IFRS 9. If certain preconditions regarding the insurance liabilities are met, the company may apply the so-called temporary exception option and defer the implementation until the adoption of IFRS 17 standard, at the latest on annual period beginning on 1 January 2022. The temporary exemption may be applied, if the Group's amount of insurance liabilities is greater than 90 per cent of the total amount of liabilities. The application is also possible, if the ratio is greater than 80 per cent, and the Group does not engage in a significant activity unconnected with insurance. Another allowed option is to apply IFRS 9 from 1 January 2018 on, but to remove some of the accounting mismatches, caused by the different valuation methods of assets and liabilities, from the income statement and transfer them to other comprehensive income. The Group has analysed the preconditions for applying the temporary exemption and stated that they are met. Therefore, the Group will apply the exemption and apply IFRS 9 standard at the same time with the upcoming IFRS 17 standard. The Group has started analysing the effects of applications in all the other areas as well, as the new standards will have a significant impact on the Group's financial statements.

European Commission had not at the balance sheet date endorsed IFRS 17 standard to be adopted in the EU. In addition, IASB has announced that it might take into consideration some amendments to IFRS 17 standard before its effective date.

Risk disclosure

1. Risk management principles

The very nature of insurance business is to transfer risks from policyholders to the insurance company. Due to this, risk is an essential and inherent element of Mandatum Life's business activities and operating environment. The purpose of the risk management process is to identify the different risks affecting the business. The risk management process also ensures that different risks can be assessed, limited and controlled.

The key objectives for the risk management are to ensure capital adequacy in relation to the risks inherent in business activities, to limit fluctuations in financial results, to guarantee efficient and continued business processes under all circumstances and to limit the risks of all operations to a level accepted by the Board of Directors.

2. Risk related to the company's business activities

Market risks of balance sheet, as well as longevity risk and surrender risk, which belong to underwriting risk, are the main risks of the Company viewed through solvency capital requirements. In addition, operational and business risks are inherent in terms of the Company's operations and continuity.

Life insurance business carries and manages risks originating from insurance events and liabilities. There are random fluctuations in the frequency and size of insurance events. The majority of with-profit life insurance business risks and result arise from investment assets. Return on assets should cover, in the long term, at least the guaranteed interest rate, bonuses based on the principle of fairness and the shareholders' return expectations. Other profit elements are generated from carrying insurance risk and expense risk. The insurance risk result is the assumed claims in premium calculations less the actual claims. The expense result is the expense charges from policies less the actual expenses.

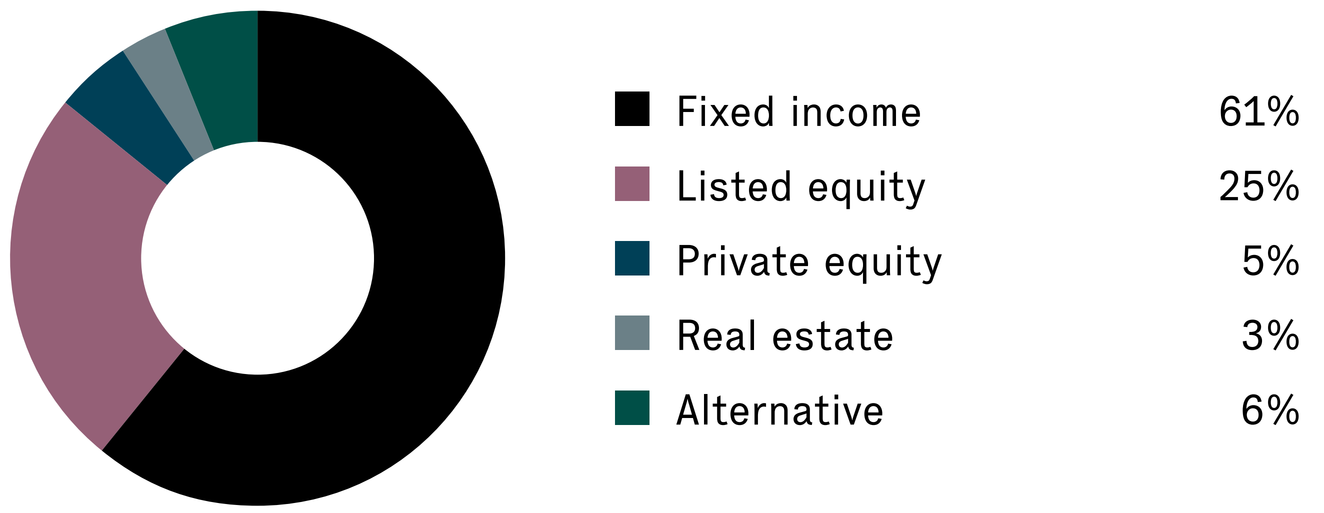
3. Market risks and their risk management

Market risks refer to fluctuations in the Company's financial results or solvency caused by changes in market values of financial assets and liabilities as well as technical provisions. Market risks are examined from both an Asset and Liability Management (ALM) as well as an investment portfolio risk perspective. The Company's market risks are arisen mainly from investments in equities and interest rate risk arising from fixed income assets and with-profit liabilities.

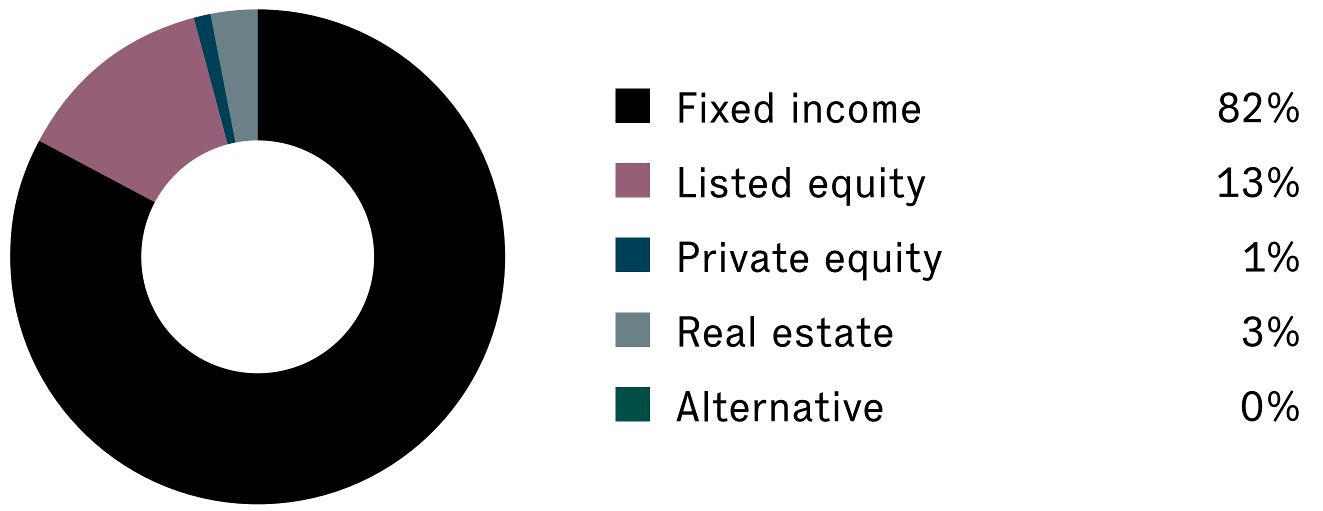
In Mandatum Life, the approach to market risk management is based on an analysis of technical provisions' expected cash flows, interest level and the current solvency position. A common feature for all elements of with-profit liabilities is the guaranteed rate and bonuses. The cash flows of the Company's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

Figure 3–1 Allocation of investments, 31 December 2019

Original portfolio EUR 4,657 million



Segregated portfolio EUR 1,022 million



The Board of Directors annually approves the Investment Policy for both segregated assets (see Section 6) and other assets regarding the Company's investment risks. The policies in question set principles and limits for investment portfolio activities as well as the risk-bearing-capacity model that is es-sential for balance sheet management and the monitoring limits to be applied.

Sampo plc's investment unit makes the Company's daily investment decisions, which are based on the principles and authorisations laid down in the Investment Policy. However, all major investment decisions – large allocation changes and decisions related to investments that exceed the investment unit's authorisations – are made by the Board of Directors. The ALCOs regularly monitor compliance with the principles and limits specified in the Investment Policy and report on investment risks to the Board of Directors. The ALCOs also monitor the Company's technical provisions and the riskiness of the assets covering the technical provisions of the segregated group pension portfolio in relation to risk-bearing capacity. The ALCOs report to the Board of Directors if the monitoring limits are not met.

In 2019, the net investment return of Mandatum Life's original portfolio was 9.2 per cent (-2.4). The net investment return on the segregated group pension portfolio was 6.4 per cent (-1.9). Figure 3-1 shows the total investments for original and segregated portfolios separately on 31 December 2019.

3.1 Equity risks

Equity price risk is the risk of losses due to changes in share prices. At year-end, the Company's listed equity investments for the original portfolio amounted to EUR 1,171 million (1,219). Listed equity investments for the segregated portfolio amounted to EUR 137 million (115).

The equity portfolio is actively managed. The positions and risks in the equity portfolio and the related derivatives may not exceed the limits set in the Investment Policy. The developed market equity portfolio is managed mainly by Sampo plc's investment management unit while the emerging market equity investments are mainly managed through external asset managers. Direct equity investments make up about 60 per cent of all equity investments. Figure 3–2 presents the geographical allocation of listed equity investments for both portfolios.

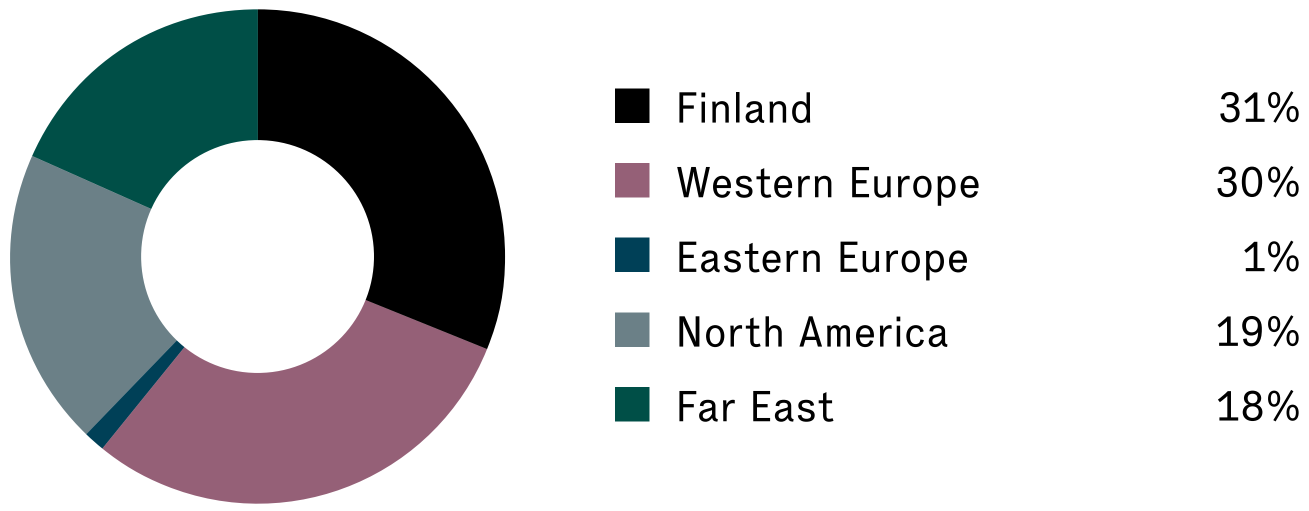
Section 4.5 contains a list of the 10 largest equity investments while a break-down of direct listed equity investments by industries is shown in section 5.

3.2 Risks related to fixed income investments

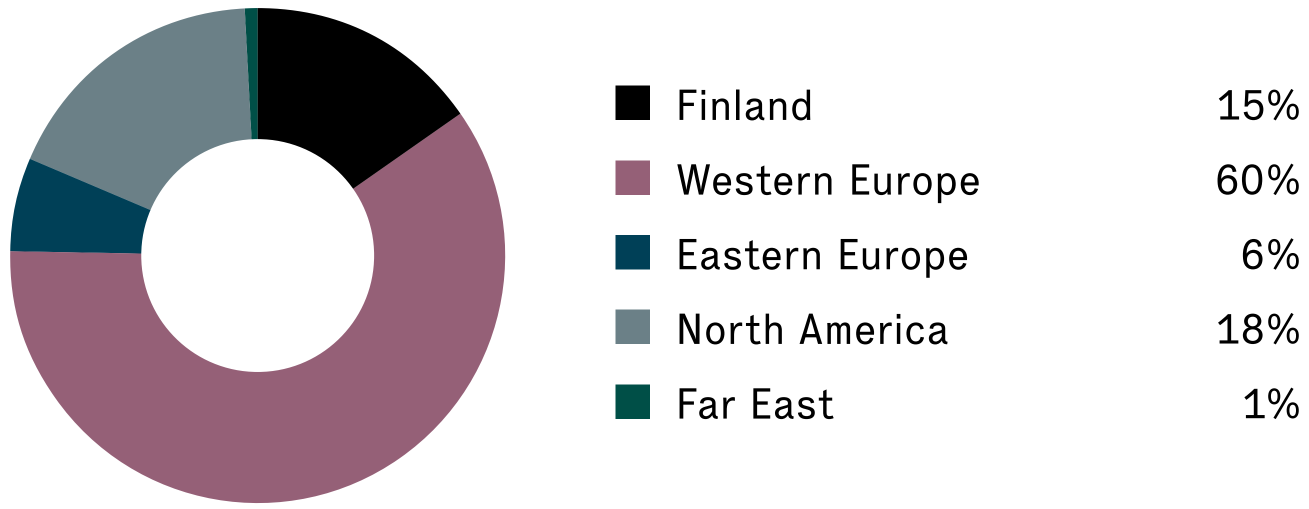
The Company's risks related to fixed income investments include interest rate risk related to changes in market interest rates and spread risk arising from changes in the credit spreads of fixed income investments.

Figure 3–2 Geographical allocation of listed equity investments, 31 December 2019

Original portfolio EUR 1,171 million



Segregated portfolio EUR 137 million



The most significant interest rate risk in the life insurance business is that fixed income investments will not, over a long period of time, generate a return at least equal to the guaranteed interest rate of with-profit liabilities. The probability of this risk increases when market interest rates fall and remain at a low level. According to the Company's Investment Policy, the interest rate risk and inflation risk of technical provisions must be taken into account when defining the composition of investment assets. The Company's duration gap between technical provisions and fixed income investments is constantly monitored and managed. Control levels based on internal capital models are used to manage and ensure adequate capital in different market situations.

The average duration of the Company's original portfolio's liabilities (excluding unit-linked liabilities) was around twelve years at year-end and for the segregated portfolio around eleven years.

The duration of the fixed income investments covering the original with-profit technical provisions as per 31 December 2019 was 2.8 years (2.5) and the du-ration of the segregated assets was 2.8 years (2.5).

When it comes to with-profit liabilities, Mandatum Life has prepared for low interest rates by, for example, reducing the guaranteed interest rate in new contracts and by supplementing the reserve for decreased discount rate. In addition, existing contracts have been changed to accommodate improved management of reinvestment risk and the liabilities have been supplemented by the reserve for decreased discount rate. More information about the reserve can be found in the Insurance Risks section.

The majority of the Company's fixed income investments are made in debt instruments issued by corporations. This increases the risk arising from increased credit spreads which, in turn, lead to value alterations. Table 3–3 illustrates the breakdown of the fixed income investments by type of instruments as well as their average maturity. The maturity measures the Company's spread risk exposure better than the duration. This is true especially when it comes to floating interest rate investments. Figure 4–1 shows the breakdown of investment assets by instruments based on industry and credit rating.

Table 3–3 shows the breakdown of the fixed income investments of the original and the segregated policies across various instruments. At the end of 2019, the share of money market investments in the original policies' fixed income portfolio rose to 24.2 per cent (16.1), and the share of investment-grade fixed income investments fell to 30.4 per cent (40.3), while high-yield fixed income investments rose to 34.8 per cent (30.1). Also, the proportion of money market investments in the segregated policy fixed income portfolio

Table 3–3 Fixed income investments by type of instrument, 31 December 2019

Original assets	% of Fixed Income Portfolio	Average Maturity
Money Market Securities and Cash	24.2%	0.0
Government Bonds	0.0%	0.0
Covered Bonds	0.0%	0.0
Investment Grade Bonds and Loans	30.4%	3.7
High Yield Bonds and Loans	34.8%	3.6
Asset Backed Securities	0.0%	0.0
Subordinated / T2-type	3.5%	4.7
Subordinated / T1-type	6.9%	4.7
Interest Rate Derivatives	0.1%	-
Total	**100.0%**	**2.9**

Segregated assets	% of Fixed Income Portfolio	Average Maturity
Money Market Securities and Cash	16.0%	0.0
Government Bonds	0.3%	2.7
Covered Bonds	1.6%	4.7
Investment Grade Bonds and Loans	47.2%	3.1
High Yield Bonds and Loans	21.8%	4.2
Asset Backed Securities	0.0%	0.0
Subordinated / T2-type	4.2%	4.7
Subordinated / T1-type	9.0%	6.1
Interest Rate Derivatives	0.0%	-
Total	**100.0%**	**3.2**

rose to 16.0 per cent (6.3). The share of investment-grade fixed income investments fell to 47.2 per cent (57.2). Also, the proportion of high-yield fixed income investments in the segregated policy rose to 21.8 per cent (17.1).

3.3 Currency risks

The with-profit technical provisions resulting from direct investments consist entirely of euro-denominated investments. Currency risk therefore arises from investments made outside the euro zone. The Company's currency strategy is based on active management of the currency position. The objective is to achieve a positive return relative to a situation where the open currency risk exposure is fully hedged, considering the limits imposed by the Investment Policy. The Table 3–4 shows the net currency exposures (net assets) for original and segregated portfolios on 31 December 2019.

3.4 Other market risks

In addition to interest rate, equity and foreign exchange risks, the Company's investment assets are also subject to risks resulting from real estate, private equity fund, biometric and other alternative investments. The Company's Investment Policy sets limits for maximum allocations into these markets and products. On 31 December 2019, the share of the above-mentioned investments of the original insurance portfolios was 14 per cent (15) and of the segregated group pension policies 5 per cent (6) of the total investment portfolio.

Private equity funds and alternative investments are managed by external asset managers. The private equity fund portfolio is diversified both according to fund style and geographical areas. Alternative investments are placed both directly into individual funds and into funds of funds in order to attain sufficient diversification between funds and investment styles.

Table 3–4 Net currency exposure, 31 December 2019

Transaction risk position, Mandatum Life (excl. segregated assets), 31 December 2019

Base currency, EUR million	USD	JPY	GBP	SEK	NOK	CHF	DKK	Other	Net total
Technical provisions	0	0	0	-3	0	0	0	0	-3
Investments	698	8	78	47	43	56	17	181	1,128
Derivatives	-669	-1	-79	-45	19	-62	-20	-82	-939
Total transaction risk, net position	**30**	**7**	**-2**	**-1**	**63**	**-6**	**-3**	**99**	**187**

Transaction risk position, segregated assets, 31 December 2019

Base currency, EUR million	USD	JPY	GBP	SEK	NOK	CHF	DKK	Other	Net total
Technical provisions	0	0	0	0	0	0	0	0	0
Investments	69	0	17	0	7	15	0	1	109
Derivatives	-68	0	-15	0	3	-14	0	0	-93
Total transaction risk, net position	**1**	**0**	**2**	**0**	**11**	**1**	**0**	**1**	**16**

Table 3–5

Concentration of market and credit risks in individual counterparties by asset class, 31 December 2019

Issuer, EUR million	Total market 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 part of derivatives
Skandinaviska Enskilda Banken	327	6%	319	8	0	0	1	8	0	0
Danske Bank	296	5%	276	18	0	0	11	7	0	2
BNP Paribas	176	3%	151	26	0	0	26	0	0	0
Nordea Bank	106	2%	73	31	0	0	5	26	0	3
ABN Amro Bank	86	2%	0	86	0	0	61	25	0	0
Vattenfall	82	1%	0	82	0	0	0	82	0	0
DnB	77	1%	0	77	0	0	53	24	0	0
Sponda	53	1%	0	53	0	0	53	0	0	0
TDC	51	1%	0	51	0	0	51	0	0	0
Lassila & Tikanoja	49	1%	0	3	0	0	3	0	46	0
Total top 10 exposures	**1,305**	**23%**	**819**	**435**	**0**	**0**	**264**	**171**	**46**	**5**
Other	4,383	77%								
Total investment assets	**5,688**	**100%**								

Table 3–6

Ten largest direct listed equity investments, 31 December 2019

The 10 largest listed equity investments	Total, EUR million	% of total direct listed equity investments
Vaisala	47	6%
Lassila & Tikanoja	46	6%
UPM-Kymmene	38	5%
Caverion	37	4%
Terveystalo	35	4%
Tikkurila	24	3%
Roche Holding	23	3%
Uponor	23	3%
F-Secure	21	2%
Nokian Renkaat	19	2%
Total top 10 exposures	**312**	**38%**
Other direct listed equity investments	518	62%
Total direct listed equity investments	**830**	**100%**

Table 3–7

Ten largest high yield and non-rated fixed income investments, 31 December 2019

Ten largest high yield and non-rated fixed income instruments	Rating	Total market value, EUR million	% of total direct fixed income investments
Sponda	NR	53	2%
TDC	B+	51	1%
Evergood 4 ApS	B+	47	1%
Trevian Finland Properties I	NR	47	1%
Pohjolan Voima	NR	37	1%
Teollisuuden Voima	BB+	29	1%
Huhtamäki	NR	24	1%
Intrum	BB	23	1%
eQ Fin Real Estate	NR	23	1%
YIT	NR	21	1%
Total top 10 exposures		**356**	**10%**
Other direct fixed income investments		3,127	90%
Total direct fixed income investments		**3,483**	**100%**

The real estate portfolio in the Company is managed by Sampo plc's real estate management unit. The portfolio includes direct and indirect investments, such as real estate funds and shares in real estate companies in accordance with the decided allocation. The main risks related to property investments are limited by diversifying holdings both geographically and by type of property.

3.5 Concentration risk of investment operations

The Company's Investment Policy sets limits for investments in individual companies. When setting the limits, the primary aspects to be taken into account are the Company's estimate of the investment's credit risk and the corresponding capital tied up. The public information available on the investment object, such as credit ratings, also affect the limit structure. Risk concentrations are monitored continuously. The Table 3–5 shows market and credit risk concentrations in individual counterparties by asset class.

Table 3–6 illustrates the 10 largest equity investments separately and their proportion of the total direct equity investments. In addition to Finnish direct equity investments, the Company invests in foreign equities through investment funds and ETFs, and as direct equity investments. Furthermore, the largest exposures of high-yield and non-rated fixed income investments are broken down in Table 3–7.

4. Credit risks

Credit risk is the risk of loss, or of adverse change in the financial situation, resulting from fluctuations in the credit standing of issuers of securities, derivative counterparties and any other debtors. Credit risks arise from investments as well as insurance and reinsurance contracts.

In the Company, credit risk can materialise as market value losses when credit spreads change unfavourably (spread risk) or as credit losses when issuers of credit instruments or counterparties of financial derivatives or reinsurance transactions fail to meet their financial obligations (default risk). The role of credit risk with the current asset allocation is remarkable from both the risk exposure and risk management perspectives.

In addition to the credit risks associated with investment assets, credit risks arise from reinsurance contracts. Credit risks related to reinsurers arise through reinsurance receivables and through the reinsurers' portion of the liabilities. In the Company, credit risks related to reinsurance are relatively low compared to the credit risks associated with investment assets.

Investments in fixed income instruments in the financial sector comprise the largest industry concentration inside the Company's investment portfolio.

4.1 Credit risk management

The selection of direct debt investments is based primarily on 'bond-picking' and secondarily on top-down allocation. This investment style may lead to a situation where the portfolio is not as diversified as the finance theory suggests but includes thoroughly analysed investments with a focus on risk-return ratios. Critical success factors for making fixed income investments are considered to be the following:

1. Potential investments must be understood thoroughly. Hence, the creditworthiness of the issuer or counterparty is assessed together with collaterals and other structural details of instruments. Although external credit ratings by rating agencies are used to support the internal assessment, own internal assessment is always the most important factor in decision making. Expertise and resources required for making analyses have been continuously developed in investment management units during recent years.
2. When the details of an instrument are understood and the related earnings potential and risks are considered to be in balance, an investment transaction shall be executable at short notice regardless of instrument type. This puts pressure on credit limit structures and procedures that must be at the same time
   i. flexible 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. they must restrict the maximum exposure of single name risk to the level that is in balance with the Company's risk appetite. During recent years, credit limit structures and procedures have been in focus when developing the companies' Investment Policies.

Credit exposure accumulations over single names and products are monitored regularly at company level and at Group level to identify unwanted concentrations. Credit exposures are reported to the Asset and Liability Committee and the Board of Directors, for instance, by sector and asset class and within fixed income by rating. Individual issuers' and counterparties' credit ratings are monitored continuously.

Derivatives' counterparty risk is managed and mitigated by bilateral ISDA and CSA agreements.

Table 4–1 Credit risk positions according to asset classes, sectors and credit ratings, 31 December 2019

EUR million	AAA	AA+ - AA-	A+ - A-	BBB+ - BBB-	BB+ - C	D	Not rated	Fixed income total	Listed equities	Other	Counterparty risk	**Total**	Change from 31 December 2018
Basic Industry	0	0	0	10	60	0	15	85	85	0	0	**170**	52
Capital Goods	0	0	4	5	26	0	60	95	152	0	0	**247**	24
Consumer Products	0	0	52	95	77	0	20	245	127	0	0	**372**	-89
Energy	0	1	0	0	0	0	47	47	0	8	0	**55**	5
Financial Institutions	0	560	823	354	65	0	17	1,819	32	8	5	**1,864**	108
Governments	0	0	0	0	0	0	0	0	0	0	0	**0**	0
Government Guaranteed	0	0	0	0	0	0	0	0	0	0	0	**0**	0
Health Care	0	0	5	23	90	0	33	151	92	18	0	**261**	21
Insurance	0	0	17	51	0	0	17	85	3	8	0	**96**	12
Media	0	0	0	0	6	0	0	6	9	0	0	**15**	-12
Packaging	0	0	0	0	9	0	24	33	12	0	0	**44**	18
Public Sector, Other	0	2	25	0	0	0	0	27	0	0	0	**27**	-47
Real Estate	0	0	1	87	5	0	144	236	0	175	0	**411**	89
Services	0	0	4	44	157	0	60	265	86	0	0	**351**	58
Technology and Electronics	1	0	6	5	47	0	11	70	188	10	0	**268**	58
Telecommunications	0	0	8	44	72	0	0	124	15	0	0	**139**	-22
Transportation	0	0	0	12	0	0	1	12	29	0	0	**42**	8
Utilities	0	0	2	38	111	0	0	150	0	0	0	**151**	36
Others	0	0	0	0	16	0	2	17	0	25	0	**42**	-15
Asset-Backed Securities	0	0	0	0	0	0	0	0	0	0	0	**0**	0
Covered Bonds	14	0	0	0	0	0	0	14	0	0	0	**14**	-120
Funds	0	0	0	0	0	0	187	187	478	448	0	**1,112**	-108
Clearing House	0	0	0	0	0	0	0	0	0	0	6	**6**	2
Total	**15**	**563**	**946**	**767**	**741**	**0**	**637**	**3,669**	**1,308**	**700**	**11**	**5,688**	**79**
Change from 31 December 2018	**-134**	**-44**	**-164**	**151**	**262**	**0**	**73**	**145**	**-26**	**-41**	**2**	**79**	

5. Liquidity risk

Liquidity risk is the risk that the Company would be unable to realise invest-ments and other assets in order to settle its financial obligations when they fall due.

A relatively small part of liabilities can be surrendered, and it is therefore possible to forecast short-term cash flows related to claims payments in a reliable manner. In addition, the assets are liquid and thus, liquidity risk is currently not significant to the Company.

6. Insurance risks

Insurance risks in the life insurance business encompass biometric risks, lapse risk and expense risk. Risk related to the discount rate applied in the with-profit liabilities is part of markets risks, but it closely relates to insurance products and due to that is presented as part of insurance risks. This section presents the development of these life insurance risks during 2019. In addition, the section presents the key insurance risk management principles.

Mandatum Life received from Suomi Mutual its with-profit group pension portfolio in 2014. Due to its special characteristics, the portfolio and related assets have been segregated (segregated group pension portfolio or segregated assets) from the rest of the Company's balance sheet. The segregated portfolio has its own profit-sharing principles, as well as its own investment limits and Asset and Liability Committee. The with-profit liabilities that are not part of the liabilities related to the segregated group pension portfolio are referred to as the 'original with-profit liabilities' in this risk management note.

6.1 Biometric risks

Biometric risks in life insurance refer mainly 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 time (longevity risk) than expected when pricing the policies. The specific case in which a single event or series of single events of major magnitude leads to a significant deviation in actual benefits and payments from the total expected payments is called catastrophe risk.

The long duration of policies and restriction of the Company's right to change policy terms and conditions and tariffs increases biometric risks. If the premiums turn out to be inaccurate and pricing cannot be changed afterwards, liabilities have to be supplemented with an amount corresponding to the expected losses.

Table 6–1 shows the insurance risk result in the Company's direct insurance policies. The ratio of the actual claims costs to the assumed was 75 per cent in 2019 (76). Sensitivity of the insurance risk result can also be assessed on the basis of the information in Table 6–1. For example, the increase of mortality by 100 per cent would increase the amount of benefit payments from EUR 12 million to approximately EUR 24 million.

Table 5–1 Cash flows according to contractual maturity, 31 December 2019

	Carrying amount total			Cash flows						
EUR million	Carrying amount total	Carrying amount without contractual maturity	Carrying amount with contractual maturity	2020	2021	2022	2023	2024	2025–2034	2035–
Life Insurance										
Financial assets	**5,634**	2,961	2,674	355	197	280	398	733	843	12
of which interest rate swaps	**11**	0	11	0	0	2	2	1	7	0
Financial liabilities	**402**	0	402	-15	-9	-10	-10	-260	-55	-191
of which interest rate swaps	**9**	0	9	0	0	-1	-1	-1	-3	-5
Lease liabilities	**9**	0	9	-2	-2	-2	-2	-2	-1	0
Net technical provisions	**3,347**		3,347	-296	-295	-273	-258	-241	-1,643	-1,302

Longevity risk is the most significant biometric risk in the Company. 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, around 70 years. In the unit-linked group pension and individual pension portfolio the longevity risk is less significant because most of these policies are fixed term annuities including death cover, which mitigate the longevity risk.

The annual longevity risk result and longevity trend are analysed regularly. For the segregated group pension portfolio, the assumed life expectancy related to the liabilities was revised in 2014 and for the other group pension portfolios in 2002 and 2007. In total these changes increased the 2019 liabilities by EUR 86 million (95) including a EUR 71 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 2019 was EUR 8.9 million (8.3) after a EUR 8.9 million release from the longevity reserve.

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 in total, although the different risk results differ 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 insurance portfolio of the Company is relatively well diversified and does not include major concentration risks. To further mitigate the effects of possible risk concentrations, the Company has catastrophe reinsurance in place.

6.2 Discount rate risk in the liabilities

Discount rate risk applied in with-profit liabilities is the main risk affecting the adequacy of liabilities for insurance contracts. The guaranteed interest rate in policies is fixed for the whole policy period. Thus, if market interest rates and expected investment returns fall, liabilities may have to be supplemented.

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. With respect to these policies, the maximum discount rate used when discounting liabilities has been decreased to 3.5 per cent. As a result, liabilities have been supplemented with EUR 40 million in 2019 (39). In addition, EUR 145 million has been reserved to lower the interest rate of with-profit liabilities to 0.25 per cent in 2020–2021 and EUR 44 million for the year 2022 to lower the interest rate of with-profit liabilities to 1.25 per cent, i.e. the Company has set up an extra reserve of EUR 230 million (232) as part of liabilities for insurance contracts.

The guaranteed interest rate for the segregated group pension policies is mainly 3.5 per cent. From a risk management perspective, it is more important that the discount rate for the liabilities is 0.0 per cent as of 31 December 2019 (discount rate earlier 0.5 per cent). The liabilities calculated with 3.5 per cent (so-called basic provision) totals EUR 623 million (658) and liabilities calculated with 0.0 per cent supplement this basic provision by EUR 263 million (250). The provision for future bonuses plays a significant role in the risk management of the segregated portfolio. This provision totals EUR 78 million (100) which can be used to cover possible investment losses or to finance possible changes in the discount rate of segregated liabilities.

The provisions related to each product type and guaranteed interest rates are shown in Table 6–2. The table also shows the change in each category during 2019.

Table 6–1 Claims ratios after reinsurance 2018 and 2019

EUR million	2019 Risk income	2019 Claim expense	2019 Claim ratio	2018 Risk income	2018 Claim expense	2018 Claim ratio
Life insurance	**49.4**	**23.7**	**48%**	**51.2**	**27.6**	**54%**
Mortality	30.4	12.1	40%	32.4	14.8	46%
Morbidity and disability	19.0	11.6	61%	18.8	12.8	68%
Pension	**87.7**	**78.9**	**90%**	**86.7**	**77.1**	**89%**
Individual pension	13.1	13.8	106%	13.7	13.9	101%
Group pension	74.6	65.0	87%	73.1	63.3	87%
Mortality (longevity)	72.3	63.5	88%	69.9	61.6	88%
Disability	2.3	1.5	67%	3.2	1.7	54%
Total	**137.1**	**102.5**	**75%**	**137.9**	**104.7**	**76%**

6.3 Other insurance risks

The most significant other risks arise from the uncertainty related to the behavior of policyholders. The policyholders have the right to cease paying premiums and the possibility to interrupt their policies (lapse risk). Being able to keep lapse and surrender rates at a low level are crucial success factors especially for the expense result of unit-linked business. From the ALM point of view, lapse risk is less significant because in the Company, approximately 90 per cent of with-profit policies are pension policies in which surrender is pos-sible only in exceptional cases. For ALM, surrender risk is therefore only relevant in with-profit investment insurance and capital redemption policies of which the related liabilities amount to only less than five per cent of the total with-profit liabilities. Furthermore, the supplements to liabilities are not paid out at surrender which also reduces the surrender risk related to the with-profit policies.

The Company is also exposed to expense risk, which is a risk that the future operating expenses exceed the level that was anticipated when pricing the in-surances. Policy terms and tariffs cannot usually be changed during the life-time of the policies, which increases the expense risk. The main challenge is to keep the expenses related to insurance administrative processes and complex IT architecture at an efficient level through the contract period of policies. In 2019, Mandatum Life Group's expense result was EUR 24.4 million (34.5). The Company does not defer insurance acquisition costs. Figure 6–3 shows the Group's expense result for 2010–2019.

6.4 Insurance risk management and control

The biometric risks of life insurance policies are managed through careful risk selection, by setting prices to reflect the risks and costs, by setting upper limits for the protection granted and through reinsurance. The Insurance Risk Committee monitors the comprehensiveness and appropriateness of the Company's insurance risk management.

Risk selection is a part of the day-to-day business routines in the Company. The Company's Underwriting Policy sets principles for risk selection and lim-its for insured sums. The Board of Directors approves the Underwriting Policy, pricing guidelines and the central principles for the calculation of technical provisions and liabilities.

Reinsurance is used to limit the amount of individual mortality and permanent disability risks. The Board of Directors annually determines the maximum amount of risk to be retained for the Company's own account, which for the Company is EUR 1.5 million per insured. To mitigate the effects of possible catastrophes, the Company participates in catastrophe reinsurance.

Table 6–2 Analysis of the change in liabilities before reinsurers' share

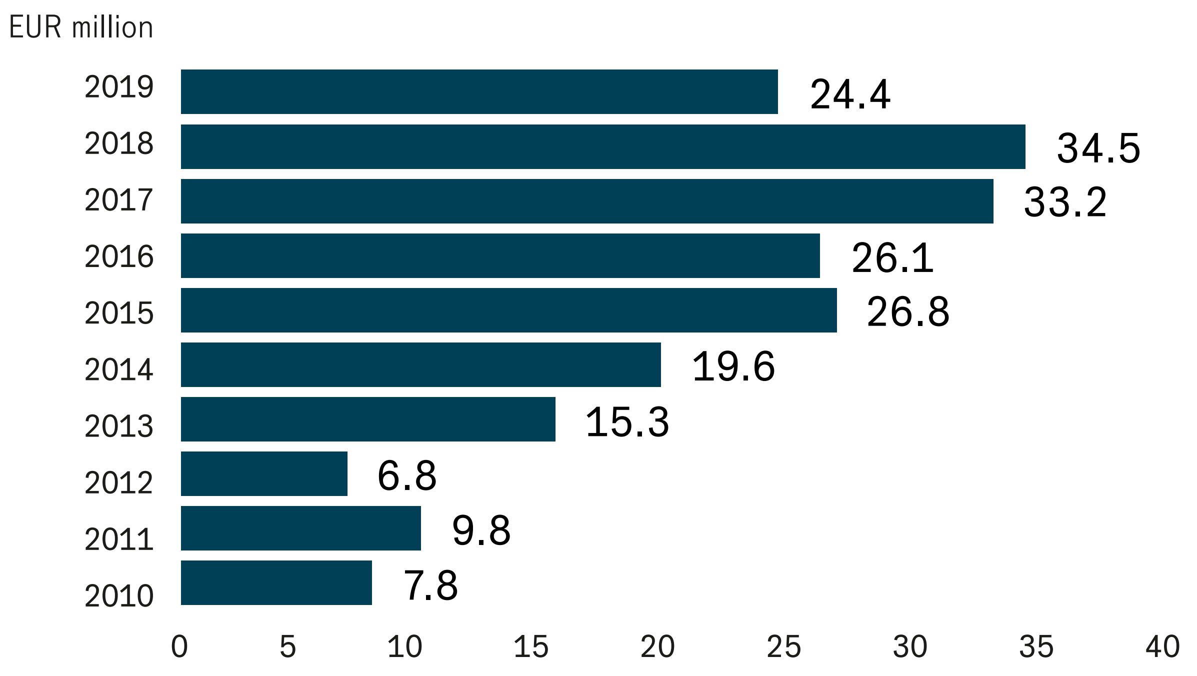
EUR million	Liability 2018	Premiums	Claims paid	Expense charges	Guaranteed interest	Bonuses	Other	**Liability 2019**	Share %
Unit-linked, excl. Baltic	**6,810**	**1,448**	**-1,116**	**-77**	**0**	**0**	**886**	**7,952**	**66%**
Individual pension insurance	1,298	55	-19	-14	0	0	191	1,511	13%
Individual life	2,195	285	-474	-21	0	0	291	2,277	19%
Capital redemption operations	2,519	1,018	-601	-31	0	0	259	3,164	26%
Group pension	797	89	-22	-10	0	0	145	1,000	8%
With profit and others, excl. Baltic	**4,208**	**125**	**-457**	**-33**	**112**	**8**	**-49**	**3,913**	**32%**
Group pension insurance. segregated portfolio	**1,008**	**2**	**-57**	**-1**	**22**	**8**	**-17**	**964**	**14%**
Basic liabilities. guaranteed rate 3.5%	658	2	-57	-1	22	8	-7	623	12%
Reserve for decreased discount rate (3.5% → 0.00%)	250	0	0	0	0	0	13	263	3%
Future bonus reserves	100	0	0	0	0	0	-22	78	8%
Group pension	**1,879**	**51**	**-225**	**-6**	**57**	**0**	**-25**	**1,732**	**5%**
Guaranteed rate 3.5%	1,603	2	-193	-3	53	0	-40	1,424	2%
Guaranteed rate 2.5%. 1.5% or 0.0%	276	48	-32	-3	4	0	14	308	1%
Individual pension insurance	**763**	**7**	**-138**	**-4**	**28**	**0**	**28**	**684**	**6%**
Guaranteed rate 4.5%	567	4	-77	-3	23	0	-19	495	4%
Guaranteed rate 3.5%	128	2	-32	-1	4	0	21	122	1%
Guaranteed rate 2.5% or 0.0%	68	1	-29	0	1	0	26	67	1%
Individual life insurance	**153**	**31**	**-27**	**-10**	**5**	**0**	**-10**	**142**	**1%**
Guaranteed rate 4.5%	52	1	-1	-1	2	0	-6	48	0%
Guaranteed rate 3.5%	76	1	-8	-3	3	0	4	73	1%
Guaranteed rate 2.5% or 0.0%	25	30	-18	-6	0	0	-9	22	0%

EUR million	Liability 2018	Premiums	Claims paid	Expense charges	Guaranteed interest	Bonuses	Other	**Liability 2019**	Share %
Capital redemption operations	**24**	**0**	**0**	**0**	**0**	**0**	**1**	**25**	**0%**
Guaranteed rate 3.5%	0	0	0	0	0	0	0	0	0%
Guaranteed rate 2.5% or 0.0%	24	0	0	0	0	0	1	25	0%
Future bonus reserves	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0%**
Reserve for decreased discount rate	**232**	**0**	**0**	**0**	**0**	**0**	**-2**	**230**	**2%**
Longevity reserve	**95**	**0**	**0**	**0**	**0**	**0**	**-9**	**86**	**1%**
Assumed reinsurance	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0%**
Other liabilities	**50**	**34**	**-11**	**-13**	**0**	**0**	**-15**	**47**	**0%**
Total, excl. Baltic	**11,017**	**1,574**	**-1,573**	**-110**	**112**	**8**	**836**	**11,865**	**99%**
Baltic	159	30	-24	-4	1	0	17	178	1%
Unit-linked liabilities	145	28	-22	-3	0	0	18	166	1%
Other liabilities	14	2	-2	-1	1	0	0	13	0%
Mandatum Life group total	**11,176**	**1,603**	**-1,597**	**-114**	**113**	**8**	**854**	**12,043**	**100%**

The risk result is actively monitored and analysed thoroughly at least annually. The Company measures the efficiency of risk selection and adequacy of tariffs by collecting information about the actual claims expenditure for each product line and each type of risk and by comparing it to the claims expenditure as-sumed in insurance premiums of every risk cover. The expense risk is managed by continuously monitoring expenses, by improving efficiency and by using an expense charge structure that provides income through the policy's whole life cycle.

Liabilities are analysed and the possible supplement needs are assessed regu-larly. The key assumptions related to liabilities are reviewed annually. Adequacy of liabilities is tested quarterly. Tariffs for new policies are set, and the underwriting policy and assumptions used in calculating liabilities are updated based on the analysis related to liabilities and risk result.

Figure 6–3 Expense result 2010–2019



Segment information

Mandatum Life group's segmentation is based on the division by the product group of domestic business and the other geographical organisation structure. The reported segments are "Unit linked contracts" (Finland), other contracts (Finland), the segregated portfolio (Finland) and foreign operations.

The investment risks vary by a product group. The segment results are reported to the management of the company as a part of management reporting. The primary segmentation comprises a substantial part of the geographical division, since operations outside Finland represents mainly the operation in Baltic countries while the impact from Luxembourg is very small. In connection with the expansion of the foreign operations shall also the division by country be expanded. Inter-segment transactions, assets and liabilities are eliminated in the consolidated financial statements on a line-by-line basis. Segment information has been produced in accordance with the accounting policies adopted for preparing and presenting the consolidated financial statements.

Consolidated income statement by business segment for year ended 31 December 2019

EUR million	Unit-linked contracts (Finland)	Other contracts (Finland)	Segregated portfolio (Finland)	Foreign operations	Elimination and items not allocated to segments	Group
Insurance premiums	1,448.2	115.8	2.2	29.7	0.0	1,595.9
Net income from investments	909.1	308.5	31.2	20.5	-2.7	1,266.5
Other operating income		18.3		4.7	0.1	23.0
Claims incurred	-1,115.7	-324.3	-28.1	-24.1	0.0	-1,492.2
Change in liabilities for insurance and investment contracts	-1,143.1	186.5	5.0	-19.6	0.0	-971.2
Staff costs	-26.3	-21.9	0.0	-3.5	0.0	-51.8
Other operating expenses	-42.5	-20.8	-1.1	-7.7	-9.2	-81.4
Finance costs		-8.9		0.0	-0.2	-9.2
Share of associates' profit/loss		0.5				0.5
Profit before taxes	**29.7**	**253.5**	**9.2**	**-0.1**	**-12.1**	**280.1**
Taxes	-5.9	-50.7	-1.8	0.0	0.0	**-58.2**
Profit	**23.7**	**202.8**	**7.3**	**-0.1**	**-12.1**	**221.9**

EUR million	Unit-linked contracts (Finland)	Other contracts (Finland)	Segregated portfolio (Finland)	Foreign operations	Elimination and items not allocated to segments	Group
Other comprehensive income for the year						
Shadow accounting						-21.3
Available-for-sale financial assets						134.9
Income tax relating to components of other comprehensive income						-27.0
Other comprehensive income						**86.6**
TOTAL COMPREHENSIVE INCOME						**308.5**
Profit attributable to						
Owners of the parent company						221.9
Non-controlling interests						0.0
Total comprehensive income attributable to						
Owners of the parent company						308.5
Non-controlling interests						0.0

In the domestic segment the transition of liabilities between unit-linked and other contracts has been recognized. The transfers between segments has an effect EUR 9.6 million (-30.0) in the item 'Change in liabilities for insurance and investment contracts' of the unit-linked contracts and EUR 0.4 million (34.9) of other contacts and EUR -9.3 million of segregated portfolio (-4.9).

Consolidated income statement by business segment for year ended 31 December 2018

EUR million	Unit-linked contracts (Finland)	Other contracts (Finland)	Segregated portfolio (Finland)	Foreign operatioins	Elimination*	**Group**
Insurance premiums	953.1	96.6	-0.3	24.9	0.0	1,074.2
Net income from investments	-226.5	202.1	9.8	-8.8	-2.8	-26.2
Other operating income		7.0		1.7	203.7	212.4
Claims incurred	-684.3	-341.7	-58.5	-31.3	0.0	-1,115.8
Change in liabilities for insurance and investment contracts**	56.7	289.9	51.8	21.0	6.9	426.4
Staff costs	-27.1	-15.4	0.0	-3.4	0.0	-46.0
Other operating expenses	-41.2	-16.1	-1.2	-4.3	-4.5	-67.3
Finance costs		-7.4		0.0	0.0	-7.4
Share of associates' profit/loss						0.0
Profit before taxes	**30.7**	**214.9**	**1.5**	**-0.1**	**203.4**	**450.4**
Taxes	-6.1	-43.0	-0.3	0.0	0.0	**-90.8**
Profit	**24.6**	**171.9**	**1.2**	**-0.2**	**203.4**	**359.6**

EUR million	Unit-linked contracts (Finland)	Other contracts (Finland)	Segregated portfolio (Finland)	Foreign operatioins	Elimination*	**Group**
Other comprehensive income for the year						
Shadow accounting						19.7
Available-for-sale financial assets						-333.5
Income tax relating to components of other comprehensive income						66.7
Other comprehensive income for the year, net of tax						**-247.1**
Total comprehensive income						**112.5**
Profit attributable to						
Owners of the parent company						359.6
Non-controlling interests						0.0
Total comprehensive income attributable to						
Owners of the parent company						**112.5**
Non-controlling interests						0

* Most significant item not allocated to segments is the payment from Danske bank co-operation
** In the domestic segment the transition of liabilities between unit-linked and other contracts has been recognized.

For the unit linked segment the transition results in a decrease of EUR 30 million in the item 'Change in liabilities for insurance and investment contracts' of the unit-linked contracts and increase of EUR 34.9 million of other contacts and decrease of EUR -4.9 million of segregated portfolio.

Consolidated balance sheet by business segment at 31 December 2019

EUR million	Unit-linked contracts (Finland)	Other contracts (Finland)	Segregated portfolio (Finland)	Foreign operations	Elimination	Group
Assets						
Property, plant and equipment	2.0	12.3		0.1		14.3
Investment property		107.7	28.5			136.1
Intangible assets	3.4	2.5		3.1		8.9
Investments in associates		0.5				0.5
Financial assets		3,802.0	852.1	17.4		4,671.5
Investments related to unit-linked insurance and investment contracts	8,004.6	0.0		165.6		8,170.2
Reinsurers' share of insurance liabilities		0.7				0.7
Other assets		121.0	14.7	1.6	0.2	137.4
Cash and cash equivalents		812.8	136.6	2.7		952.1
Total assets	**8,009.9**	**4,859.6**	**1,031.8**	**190.5**	**0.2**	**14,091.9**
Liabilities						
Liabilities for insurance and investment contracts		2,948.7	964.4	12.8		3,925.8
Liabilities for unit-linked insurance and investment contracts	7,951.5	0.0		165.6		8,117.1
Financial liabilities		364.0				364.0
Tax liabilities		120.8				120.8
Other liabilities	26.5	105.5	53.2	1.8	9.6	196.5
Total liabilities	**7,978.0**	**3,539.0**	**1,017.6**	**180.1**	**9.6**	**12,724.2**

EUR million	Unit-linked contracts (Finland)	Other contracts (Finland)	Segregated portfolio (Finland)	Foreign operations	Elimination	Group
Equity						
Share capital						40.4
Reserves						566.9
Retained earnings						760.4
Equity attributable to parent company's equity holders						**1,367.7**
Non-controlling interests						0.0
Total equity						**1,367.7**
Total equity and liabilities						**14,091.9**

Consolidated balance sheet by business segment at 31 December 2018

EUR million	Unit-linked contracts (Finland)	Other contracts (Finland)	Segregated portfolio (Finland)	Foreign operations	Elimination	Group
Assets						
Property, plant and equipment	1.4	3.0		0.1		4.5
Investment property		117.1	29.2			146.3
Intangible assets	1.9	2.5		0.5		5.0
Investments in associates		2.6				2.6
Financial assets		3,951.5	932.5	17.9		4,901.9
Investments related to unit-linked insurance	6,815.4	0.0		144.7		6,960.1
Reinsurers' share of insurance liabilities		0.9				0.9
Other assets		153.8	28.4	0.7	-1.0	182.0
Cash and cash equivalents		527.2	57.7	0.6		585.5
Total assets	**6,818.7**	**4,758.8**	**1,047.7**	**164.5**	**-1.0**	**12,788.8**
Liabilities						
Liabilities for insurance and investment contracts		3,199.7	1,007.8	13.9		4,221.5
Liabilities for unit-linked insurance and investment contracts	6,809.8	0.0		144.9		6,954.7
Financial liabilities		133.5				133.5
Tax liabilities		95.8				95.8
Other liabilities	24.1	105.2	43.5	1.0	-1.0	172.9
Total liabilities	**6,834.0**	**3,534.1**	**1,051.3**	**159.8**	**-1.0**	**11,578.2**

EUR million	Unit-linked contracts (Finland)	Other contracts (Finland)	Segregated portfolio (Finland)	Foreign operations	Elimination	Group
Equity						
Share capital						40.4
Reserves						480.3
Retained earnings						689.9
Equity attributable to parent company's equity holders						**1,210.6**
Non-controlling interests						0.0
Total equity						**1,210.6**
Total equity and liabilities						**12,788.8**

Notes to the income statement

1. Insurance premiums

Premiums from insurance contracts

EUR million	2019	2018
Insurance contracts		
Insurance contracts	573.3	394.2
Reinsurance contracts	0.1	0.7
Insurance contracts total, gross	**573.4**	**394.9**
Reinsurers' share	-7.1	-7.4
Insurance contracts total, net	**566.3**	**387.5**
Investment contracts	1029.6	686.7
Total premiums *	**1,595.9**	**1074.2**

* The change in unearned premiums is presented in note 4 "The change in insurance and investment liabilities".

Specification of premiums

EUR million	2019	2018
Premiums from insurance contracts		
Premiums from contracts with discretionary participation feature	125.8	103.9
Premiums from unit-linked contracts	446.5	289.4
Premiums from other contracts	1.0	0.9
Total	**573.3**	**394.2**
Assumed reinsurance	0.1	0.7
Premiums from investment contracts		
Premiums from contracts with discretionary participation feature	0.0	0.0
Premiums from unit-linked contracts	1,029.6	686.7
Total	**1,029.6**	**686.7**

EUR million	2019	2018
Insurance and investment contracts, total	**1,603.0**	**1,081.6**
Reinsurers' share	-7.1	-7.4
Total premiums	**1,595.9**	**1,074.2**

Direct insurance premiums by geographical segments

EUR million	2019	2018
Finland	1,573.2	1,056.0
Baltic countries	29.7	24.9
Total	**1,602.9**	**1,080.9**

Single and regular premiums from direct insurance

EUR million	2019	2018
Regular premiums, insurance contracts	261.9	249.4
Single premiums, insurance contracts	311.5	144.8
Single premiums, investment contracts	1,029.6	686.7
Total	**1,602.9**	**1,080.9**

Direct insurance premiums by line of business

EUR million	2019	2018
Premiums from insurance contracts		
Life insurance		
Unit-linked individual life insurance	301.9	150.3
Other individual life insurance	44.9	44.9
Employees' group life insurance	10.1	13.5
Other group life insurance	12.2	11.6
Total	**369.1**	**220.3**
Pension insurance		
Unit-linked individual pension insurance	55.4	57.6
Other individual pension insurance	6.7	8.4
Unit-linked group pension insurance	89.2	78.2
Other group pension insurance	52.9	29.9
Total	**204.2**	**173.9**
Total	**573.3**	**394.2**
Premiums from investment contracts		
Capital redemption operations		
Unit-linked capital redemption operations	1,029.6	686.7
Other capital redemption operations	0.0	0.0
Total	**1,029.6**	**686.7**
Total premiums from insurance- and investment contracts	**1,602.9**	**1,080.9**

2. Net income from investments

EUR million	2019	2018
Financial assets		
Derivative financial instruments		
Gains/losses	-63.4	-124.8
Financial assets designated as at fair value through P&L		
Debt securities		
Interest income	0.0	0.0
Gains/losses	0.0	0.0
Equity securities		
Gains/losses	0.0	0.0
Dividend income	0.0	0.0
Total	**0.0**	**0.0**
Investments related to unit-linked contracts		
Debt securities		
Interest income	38.7	49.2
Gains/losses	50.9	-44.9
Equity securities		
Gains/losses	751.5	-308.1
Dividend income	59.1	48.5
Loans and receivables		
Interest income	-0.4	6.0
Other financial assets		
Gains/losses	-0.5	-14.9
Other assets		
Gains/losses	8.7	5.4
Total	**908.1**	**-258.8**

Net income from investments

EUR million	2019	2018
Loans and receivables		
Interest income	1.9	0.6
Gains/losses	2.2	1.1
Total	**4.1**	**1.7**
Financial assets available-for-sale		
Debt securities		
Interest income	70.6	79.9
Gains/losses	14.8	47.1
Impairment losses	-0.1	4.6
Equity securities		
Gains/losses	234.7	151.7
Impairment losses	-15.3	-56.6
Dividend income	105.8	112.5
Total	**410.4**	**339.2**
Total financial assets	**1,259.1**	**-42.7**
Other assets		
Investment properties		
Gains/losses	2.3	0.0
Impairment losses	-4.0	0.0
Other	3.5	3.1
Total other assets	**1.8**	**3.1**

EUR million	2019	2018
Net fee income		
Asset management	-19.3	-14.6
Fee income	24.9	28.0
Total	**5.6**	**13.4**
Net Income from Investments total	**1,266.5**	**-26.2**

Included in gains/losses from financial assets available-for-sale is a net gain of EUR 236.2 million (116.5) transferred from the fair value reserve.

Other income and expenses comprise rental income, maintenance expenses and depreciation of investment property.

All the income and expenses arising from investments are included in Net income from investments. Gains/losses include realised gains/losses on sales, unrealised and realised changes in fair values and exchange differences.

Unrealised fair value changes for financial assets available-for-sale are recorded in other comprehensive income and presented in the fair value reserve in equity.

The changes in the fair value reserve are disclosed in the Statement of changes in equity.

3. Claims incurred

Claims include all claims related to insurance and investment contracts.

	Claims paid		Change in provision for claims outstanding		Claims incurred	
EUR million	**2019**	2018	**2019**	2018	**2019**	2018
Insurance contracts						
Life insurance						
Contracts with discretionary participation feature (DPF)	-39.7	-37.1	0.8	-2.2	-38.9	-39.4
Other contracts	-0.1	-0.1	0.0	0.0	-0.1	-0.1
Unit-linked contracts	-489.1	-316.5	-0.7	0.1	-489.8	-316.4
Total	**-529.0**	**-353.8**	**0.1**	**-2.2**	**-528.9**	**-356.0**
Pension insurance						
Contracts with discretionary participation feature (DPF)	-419.7	-401.9	182.9	64.5	-236.8	-337.5
Unit-linked contracts	-40.8	-24.6	-78.4	-24.3	-119.2	-49.0
Total	**-460.5**	**-426.6**	**104.4**	**40.1**	**-356.0**	**-386.4**
Assumed reinsurance	-0.3	-0.5	0.0	-2.0	-0.3	-2.4
Total	**-989.8**	**-780.8**	**104.5**	**36.0**	**-885.3**	**-744.8**
Reinsurers' share	0.7	0.8	-0.2	0.9	0.5	1.6
Insurance contracts total	**-989.1**	**-780.0**	**104.3**	**36.8**	**-884.7**	**-743.2**
Investment contracts						
Capital redemption policies						
Contracts with discretionary participation feature (DPF)	-0.1	-0.5	-	-	-0.1	-0.5
Unit-linked contracts	-607.4	-372.1	-	-	-607.4	-372.1
Total	**-607.5**	**-372.6**	**-**	**-**	**-607.5**	**-372.6**
Claims total	**-1,596.6**	**-1,152.6**	**104.3**	**36.8**	**-1,492.2**	**-1,115.8**

Claims paid by type of benefit

EUR million	2019	2018
Insurance contracts		
Life insurance		
Surrender benefits	-8.5	-5.4
Death benefits	-15.8	-14.9
Maturity benefits	-5.7	-5.8
Loss adjustment expenses	0.0	0.0
Other	-9.7	-11.2
Total	**-39.7**	**-37.2**
Life insurance, unit-linked		
Surrender benefits	-432.8	-255.9
Death benefits	-50.4	-53.6
Maturity benefits	-5.9	-7.0
Loss adjustment expenses	0.0	0.0
Total	**-489.1**	**-316.5**
Pension insurance		
Pension payments	-409.8	-391.8
Surrender benefits	-2.2	-1.6
Death benefits	-7.5	-8.5
Loss adjustment expenses	-0.1	0.0
Total	**-419.7**	**-401.9**
Pension insurance, unit-linked		
Pension payments	-17.1	-11.1
Surrender benefits	-20.3	-10.7
Death benefits	-3.4	-2.8
Other	0.0	0.0
Total	**-40.8**	**-24.6**

EUR million	2019	2018
Assumed reinsurance	-0.3	-0.5
Total	**-989.8**	**-780.8**
Reinsurers' share	0.7	0.8
Insurance contracts total	**-989.1**	**-780.0**
Investment contracts		
Capital redemption policy, with-profit		
Surrender benefits	-0.1	-0.5
Maturity benefits	0.0	0.0
Total	**-0.1**	**-0.5**
Investment contracts		
Capital redemption policy, unit-linked		
Surrender benefits	-602.9	-367.8
Maturity benefits	-4.4	-4.4
Total	**-607.4**	**-372.1**
Investment contracts total	**-607.5**	**-372.6**
Claims paid total, gross	**-1,597.3**	**-1,153.3**
Claims paid total, net	**-1,596.6**	**-1,152.6**

4. Change in liabilities for insurance and investment contracts

EUR million	2019	2018
Insurance contracts		
Life-insurance		
Contracts with discretionary participation feature (DPF)	8.5	16.3
Other contracts	-0.1	0.0
Unit-linked contracts	-90.9	311.7
Total	**-82.5**	**328.0**
Pension insurance		
Contracts with discretionary participation feature (DPF)	104.4	272.9
Unit-linked contracts	-336.6	107.2
Total	**-232.2**	**380.1**
Assumed reinsurance	0.0	0.0
Total	**-314.7**	**708.1**
Reinsurers' share	-0.2	-2.0
Insurance contracts total, net	**-314.8**	**706.1**
Investment contracts		
Capital redemption policy		
Contracts with discretionary participation feature (DPF)	-0.7	2.1
Unit-linked contracts	-655.8	-283.8
Total	**-656.5**	**-281.7**
Change in liabilities for insurance and investment contracts total, gross	**-971.2**	**426.4**

5. Staff costs

EUR million	2019	2018
Staff costs		
Wages and salaries	-40.9	-36.7
Cash-settled share-based payments	-1.4	-0.3
Pension costs - defined contribution plans	-6.7	-5.9
Other social security costs	-2.8	-3.0
Total	**-51.8**	**-46.0**

More information on share-based payments in note 32 Incentive schemes.

6. Other operating expenses

EUR million	2019	2018
IT costs	-23.5	-23.0
Other staff costs	-2.0	-1.9
Marketing expenses	-4.7	-4.3
Depreciation and amortisation	-4.5	-2.1
Rental expenses	-1.6	-3.6
Direct insurance commissions	-2.1	-1.3
Commissions of reinsurance assumed	-0.1	0.1
Commissions on reinsurance ceded	4.4	5.6
Other	-47.2	-36.7
Total	**-81.4**	**-67.3**

Item Other includes e.g. expenses related to communication, external services and other administrative expenses.

Operating expenses by activity

EUR million	2019	2018
Policy acquisition costs for insurance- and investment contracts		
Direct insurance commissions	-2.1	-1.3
Commission on reinsurance assumed	-0.1	0.1
Other acquisition costs	-24.6	-24.8
Policy management expenses on insurance and investment contracts	-66.9	-58.6
Administrative expenses	-17.6	-14.5
Commission on reinsurance ceded	4.4	5.6
Investment management expenses	-0.4	-0.4
Claims settlement expenses	-6.3	-6.4
Other expenses	-19.5	-13.0
Total	**-133.2**	**-113.3**

7. Financial assets and liabilities

The financial assets in the table include balance sheet items Financial assets excluding Investments related to unit-linked contracts.

Financial assets and liabilities have been categorised in accordance with IAS 39.9. In the table are also included interest income and expenses, realised and unrealised gains and losses recognised in P&L, impairment losses and dividend income arising from those assets and liabilities.

Accrued interest income and expenses are not included in financial assets or financial liabilities. Accrued interest income was EUR 24.9 million (23.7) and accrued interest expenses EUR 7.2 million (23.2).

Financial assets 2019

	2019				
EUR million	Carrying amount	Interest inc./exp.	Gains/ losses	Impairment losses	Dividend income
Financial assets at fair value through P&L					
Derivative financial instruments	19.8	-28.8	-34.6	-	-
Financial assets designated as at fair value through P&L	-	-	-	-	-
Loans and receivables	-	1.9	2.2	-4.0	-
Financial assets available-for-sale	4,651.7	70.6	249.5	-15.4	105.8
Financial assets total	**4,671.5**	**43.7**	**217.0**	**-19.4**	**105.8**

Financial assets 2018

	2018				
EUR million	Carrying amount	Interest inc./exp.	Gains/ losses	Impairment losses	Dividend income
Financial assets at fair value through P&L					
Derivative financial instruments	7.2	-49.0	-75.7	-	-
Financial assets designated as at fair value through P&L	0.0	0.0	0.0	-	0.0
Loans and receivables	0.0	0.6	1.1	-	-
Financial assets available-for-sale	4,894.7	79.9	198.8	-52.0	112.5
Financial assets total	**4,901.9**	**31.4**	**124.2**	**-52.0**	**112.5**

Financial liabilities 2019

	2019				
EUR million	Carrying amount	Interest inc./exp.	Gains/ losses	Impairment losses	Dividend income
Financial liabilities at fair value through P&L					
Derivative financial instruments	15.0	-	-	-	-
Other financial liabilities at amortised cost	349.1	-8.9	-	-	-
Financial liabilities total	**364.0**	**-8.9**	**-**	**-**	**-**

Financial liabilities 2018

	2018				
EUR million	Carrying amount	Interest inc./exp.	Gains/ losses	Impairment losses	Dividend income
Financial liabilities at fair value through P&L					
Derivative financial instruments	33.5	-	-	-	-
Other financial liabilities at amortised cost	100.0	-7.4	-	-	-
Financial liabilities total	**133.5**	**-7.4**	**-**	**-**	**-**

Notes to the balance sheet

8. Property, plant and equipment

	2019				2018		
EUR million	Right to use assets *	Land and buildings	Equipment	Total	Land and buildings	Equipment	Total
At 1 January							
Acquisition cost		2.9	9.7	12.6	2.9	8.0	10.9
Accumulated depreciation		-0.8	-7.3	-8.0	-0.7	-7.1	-7.8
Net carrying amount at 1 January	**-**	**2.1**	**2.5**	**4.5**	**2.1**	**1.0**	**3.1**
Opening net carrying amount	-	2.1	2.5	4.5	2.1	1.0	3.1
Additions+/Disposals -	11.0	0.9	0.0	11.9	0.0	1.7	1.7
Depreciation	-1.7	0.0	-0.4	-2.1	0.0	-0.2	-0.2
Closing net carrying amount at 31 December	**9.3**	**2.9**	**2.1**	**14.3**	**2.1**	**2.5**	**4.5**
At 31 December							
Acquisition cost	11.0	3.7	9.8	24.5	2.9	9.7	12.6
Accumulated depreciation	-1.7	-0.8	-7.6	-10.1	-0.8	-7.3	-8.0
Net carrying amount at 31 December	**9.3**	**2.9**	**2.1**	**14.3**	**2.1**	**2.5**	**4.5**

Equipment comprise IT and office equipment.

* The Group has premises, offices, car parks and so on, taken as a lessee. Right to use assets comprise of Group's rental agreements.

As a rule, the Group leases the premises for its own use. The contracts have been made mainly for 2–5 years. Most of the contracts have possibility to renew the contract after the term has expired.

The rents are usually consumer prices index linked.

More information about Group's leases in note 28.

9. Sijoituskiinteistöt

EUR million	2019	2018
At 1 January		
Acquisition cost	243.6	238.0
Accumulated depreciation	-64.2	-60.7
Accumulated impairment losses	-33.1	-27.5
Net carrying amount at 1 January	**146.3**	**149.7**
Opening net carrying amount	146.3	149.7
Additions	0.8	7.1
Disposals	-6.9	-1.4
Depreciation	-3.3	-3.5
Impairment losses	-0.8	-5.6
Closing net carrying amount at 31 December	**136.1**	**146.3**
At 31 December		
Acquisition cost	237.5	243.6
Accumulated depreciation	-67.5	-64.2
Accumulated impairment losses	-33.9	-33.1
Net carrying amount at 31 December	**136.1**	**146.3**
Rental income from investment property	16.6	16.8
Property rented out under operating lease		
Non-cancellable minimum rental		
Not later than one year	8.7	9.2
Later than one year and not later than five years	15.4	16.5
Later than five years	1.4	3.3
Total	**25.4**	**29.1**

EUR million	2019	2018
Variable rents recognised as income during the financial period	0.1	0.0
Expenses arising from investment property		
Direct operating expenses arising from investment property generating rental income during the period	-7.5	-8.7
Direct operating expenses arising from investment property not generating rental income during the period	-1.4	-1.6
Total	**-8.9**	**-10.3**
Fair value of investment property at 31 December	**169.9**	**179.3**

Fair values for the investment property are entirely determined by the Group based on the market evidence.

The premises in investment property for different segments are leased on market-based, irrevocable contracts. The lengths of the contracts vary from those for the time being to those for several years.

10. Intangible assets

EUR million	2019	2018
At 1 January		
Acquisition cost	47.9	46.0
Accumulated amortisation	-43.0	-41.1
Net carrying amount at 1 January	**5.0**	**4.9**
Opening net carrying amount	5.0	4.9
Additions	6.3	1.9
Amortisation	-2.4	-1.8
Closing net carrying amount at 31 December	**8.9**	**5.0**
At 31 December		
Acquisition cost	54.3	47.9
Accumulated amortisation	-45.3	-43.0
Net carrying amount at 31 December	**8.9**	**5.0**

Intangible assets comprise mainly IT software.

Depreciation and impairment losses are included in the income statement item Other operating expenses.

11. Investments in associates

Associates that have been accounted for by the equity method at 31 December 2019

EUR million	Carrying amount	Fair value	Interest held %	Assets/ liabilities	Revenue	Profit/ loss
Niittymaa Oy *	0.0	0.0	49.0	0.0/0.0	0.0	0.0
Precast Holding Oy	2.6	2.6	24.3	3.6/0.0	0.0	0.0

* Reporting period July/2019–December/2019.

Associates that have been accounted for by the equity method at 31 December 2018

EUR million	Carrying amount	Fair value	Interest held %	Assets/ liabilities	Revenue	Profit/ loss
Niittymaa Oy *	0.0	0.0	49.0	0.0/0.0	0.0	0.0
Precast Holding Oy	2.6	2.6	24.3	3.5/0.0	0.0	0.0

* Reporting period July/2018–December/2018.

Changes in investments in associates

EUR million	2019	2018
At beginning of year	2.6	0.0
Change	0.0	2.6
Share of loss/profit	0.0	0.0
At end of year	**2.6**	**2.6**

12. Financial assets

Group's financial assets comprise investments in derivatives, financial assets designated as at fair value through P&L, loans and receivables and available-for-sale financial assets.

The Group uses derivative instruments for trading and for hedging purposes. The derivatives used are foreign exchange, interest rate and equity derivatives. Fair value hedging has been applied.

EUR million	2019	2018
Derivative financial instruments	19.8	7.2
Financial assets designated as at fair value through P&L	0.0	0.0
Loans and receivables	0.0	0.0
Financial assets available-for-sale	4,651.7	4,894.7
Total	**4,671.5**	**4,901.9**

Derivative financial instruments

	2019			2018		
		Fair value			Fair value	
EUR million	Contract amount	Assets	Liabilities	Contract amount	Assets	Liabilities
Derivatives held for trading						
Interest rate derivatives						
Interest rate swaps	144.0	11.3	8.6	144.0	2.3	0.0
Total	**144.0**	**11.3**	**8.6**	**144.0**	**2.3**	**0.0**
Foreign exchange derivatives						
Currency forwards	852.2	5.0	6.4	1,838.7	2.5	27.8
Currency options, bought and sold	0.0	0.0	0.0	375.0	2.5	2.2
Total	**852.2**	**5.0**	**6.4**	**2,213.7**	**4.9**	**29.9**
Total	**996.2**	**16.3**	**15.0**	**2,357.7**	**7.2**	**29.9**
Derivatives held for hedging						
Fair value hedges						
Currency forwards	364.2	3.5	0.0	363.9	0.0	3.5
Total	**364.2**	**3.5**	**0.0**	**363.9**	**0.0**	**3.5**
Total derivatives held for hedging	**364.2**	**3.5**	**0.0**	**363.9**	**0.0**	**3.5**
Total derivatives	**1,360.4**	**19.8**	**15.0**	**2,721.7**	**7.2**	**33.5**

Fair value hedges

Fair value hedging is used to hedge a proportion of foreign exchange in available-for-sale financial assets. The interest elements of forward contracts have been excluded from hedging relationships in foreign exchange hedges.

Net gains/losses from exchange derivatives designated as fair value hedges amounted to EUR 6 million (12). Net gains/losses from hedged risks in fair value hedges of available for sale financial assets amounted to EUR -6 million (-12).

Other financial assets

EUR million	2019	2018
Financial assets available-for-sale		
Debt securities		
Issued by public bodies	316.5	481.5
Issued by banks	440.8	402.3
Other debt securities	1,885.7	1,973.6
Total	**2,643.0**	**2,857.4**
Equity securities		
Listed	1,292.2	1,304.7
Unlisted	716.5	732.7
Total	**2,008.7**	**2,037.4**
Total	**4,651.7**	**4,894.8**

Financial assets total

Financial assets available-for-sale for life insurance include impairment losses EUR 15 million (57).

Financial assets available for sale/debt securities: Debt securities available for sale include EUR 2,643 million (2,857) investments in bonds and EUR 0 million (0) investments in money market instruments.

Financial assets available for sale/shares and participations: Listed equity securities include EUR 816 million (752) quoted shares. Unlisted equity securities include EUR 628 million (670) investments in capital trusts.

13. Fair values

	2019		2018		Change
EUR million	Fair value	Carrying amount	Fair value	Carrying amount	in fair value
Financial assets					
Financial assets	4,671.5	4,671.5	4,901.9	4,901.9	-230.4
Investments related to unit-linked contracts	8,170.2	8,170.2	6,960.1	6,960.1	1,210.1
Other assets	10.7	10.7	33.1	33.1	-22.4
Cash and cash equivalents	952.1	952.1	585.5	585.5	366.6
Total	**13,804.5**	**13,804.5**	**12,480.6**	**12,480.6**	**1,323.9**
Financial liabilities					
Financial liabilities	364.0	364.0	133.5	133.5	230.6
Other liabilities	196.5	196.5	172.9	172.9	23.7
Total	**560.6**	**560.6**	**306.3**	**306.3**	**254.3**

In the table above are presented fair values and carrying amounts of financial assets and liabilities including assets classified as held for sale. The detailed measurement bases of financial assets and liabilities are disclosed in Group Accounting policies.

According to current preliminary analysis the Group doesn't have financial assets measured at amortized cost or financial instruments at fair value through OCI that meet the SPPI test according to IFRS 9. The final classification may change before implementing the IFRS 9 standard on 1 January 2022.

The fair value of investment securities is assessed using quoted prices in active markets. If published price quotations are not available, the fair value is assessed using discounting method. Values for the discount rates are taken from the market's yield curve.

The fair value of the derivative instruments is assessed using quoted market prices in active markets, discounting method or option pricing models.

The fair value of loans and other financial instruments which have no quoted price in active markets is based on discounted cash flows, using quoted market rates. The market's yield curve is adjusted by other components of the instrument, e.g. by credit risk.

The fair value for short-term non-interest-bearing receivables and payables is their carrying amount.

Disclosed fair values are "clean" fair values, i.e. less interest accruals.

14. Determination and hierarchy of fair values

A large majority of Mandatum Life Group's financial assets are valued at fair value. The valuation is based on either published price quotations or valuation techniques based on market observable inputs, where available. For a limited amount of assets the value needs to be determined using other techniques.

The financial instruments measured at fair value have been classified into three hierarchy levels in the notes, depending on e.g. if the market for the instrument is active, or if the inputs used in the valuation technique are observable.

On level 1, the measurement of the instrument is based on quoted prices in active markets for identical assets or liabilities.

On level 2, inputs for the measurement of the instrument include also other than quoted prices observable for the asset or liability, either directly or indirectly by using valuation techniques.

In level 3, the measurement is based on other inputs rather than observable market data.

Financial assets 31 December 2019

EUR million	Level 1	Level 2	Level 3	Total
Derivative financial instruments				
Interest rate swaps	-	11.3	-	11.3
Foreign exchange derivatives	-	8.5	-	8.5
Total	**0.0**	**19.8**	**0.0**	**19.8**
Financial assets related to unit-linked insurance				
Equity securities	552.9	3.0	18.2	574.1
Debt securities	65.9	773.5	20.7	860.2
Funds	4,685.7	618.7	1,000.5	6,304.9
Derivative financial instruments	0.0	16.6	-	16.6
Total	**5,304.5**	**1,411.9**	**1,039.4**	**7,755.8**
Financial assets available-for-sale				
Equity securities	816.4	-	63.8	880.2
Debt securities	1,891.1	691.3	60.5	2,643.0
Funds	474.2	20.8	633.5	1,128.5
Total	**3,181.8**	**712.2**	**757.7**	**4,651.7**
Total financial assets measured at fair value	**8,486.3**	**2,143.8**	**1,797.1**	**12,427.3**
Other assets		**414.4**		**414.4**
FINANCIAL ASSETS TOTAL	**8,486.3**	**2,558.2**	**1,797.1**	**12,841.7**

Financial liabilities 31 December 2019

EUR million	Level 1	Level 2	Level 3	Total
Derivative financial instruments				
Interest rate swaps	-	8.6	-	8.6
Foreign exchange derivatives	-	6.4	-	6.4
Total financial liabilities measured at fair value	**-**	**15.0**	**-**	**15.0**
Financial liabilities at amortised cost		**356.0**		**356.0**
FINANCIAL LIABILITIES TOTAL	**-**	**371.0**	**-**	**371.0**

Financial assets 31 December 2018

EUR million	Level 1	Level 2	Level 3	Total
Derivative financial instruments				
Interest rate swaps	-	2.3	-	2.3
Foreign exchange derivatives	-	4.9	-	4.9
Total	**0.0**	**7.2**	**0.0**	**7.2**
Financial assets related to unit-linked insurance				
Equity securities	484.1	3.1	7.3	494.5
Debt securities	565.6	1,040.1	15.5	1,621.2
Funds	3,119.1	682.9	678.5	4,480.5
Derivative financial instruments	0.0	5.4	-	5.4
Total	**4,168.8**	**1,731.5**	**701.3**	**6,601.6**
Financial assets available-for-sale				
Equity securities	752.3	-	38.4	790.7
Debt securities	2,143.3	700.7	13.4	2,857.4
Funds	550.7	19.9	675.9	1,246.6
Total	**3,446.3**	**720.6**	**727.8**	**4,894.7**
Total financial assets measured at fair value	**7,615.1**	**2,459.3**	**1,429.0**	**11,503.5**
Other assets		**977.2**		**977.2**
FINANCIAL ASSETS TOTAL	**7,615.1**	**3,436.5**	**1,429.0**	**12,480.6**

Financial liabilities 31 December 2018

EUR million	Level 1	Level 2	Level 3	Total
Derivative financial instruments				
Interest rate swaps	-	0.0	-	0.0
Foreign exchange derivatives	-	33.5	-	33.5
Total financial liabilities measured at fair value	**-**	**33.5**	**-**	**33.5**
Financial liabilities at amortised cost		**100.0**		**100.0**
FINANCIAL LIABILITIES TOTAL	**-**	**133.5**	**-**	**133.5**

Sensitivity analysis of fair values

10 percentage point depreciation of all other currencies against EUR would result in an effect recognised in P&L of EUR 48 million and in an effect recognised directly in equity of EUR -68 million.

The sensitivity analysis of the Group's fair values of financial assets and liabilities in different market risk scenarios is presented below. The effects represent the instantaneous effects of a one-off change in the underlying market variable on the fair values on 31 December 2019.

The sensitivity analysis includes the effects of derivative positions. All sensitivities are calculated before taxes.

	Interest rate		Equity	Other financial investments
EUR million	1% parallel shift down	1% parallel shift up	20% fall in prices	20% fall in prices
Effect recognised in P&L	-3	0	0	0
Effect recognised directly in equity	105	-86	-262	-140
Total effect	**102**	**-86**	**-262**	**-140**

15. Movements in level 3 financial instruments measured at fair value

Financial assets 2019

EUR million	At 1 January	Total gains/losses in P&L	Total gains/losses recorded in OCI	Purchases	Sales	Transfers between levels 1 and 2	At 31 December	Gains/losses included in P&L for financial assets
Financial assets related to unit-linked insurance								
Equity securities	7.3	0.2	-	11.0	-0.3	0.0	18.2	0.2
Debt securities	15.5	-0.1	-	27.4	-22.2	0.0	20.7	-0.5
Funds	678.5	12.7	-	471.3	-162.0	0.0	1,000.5	11.1
Total	**701.3**	**12.9**	**0.0**	**509.7**	**-184.4**	**0.0**	**1,039.4**	**10.8**
Financial assets available-for-sale								
Equity securities	38.4	0.1	-0.5	35.2	-9.5	-	63.8	-0.7
Debt securities	13.4	0.1	-0.1	137.8	-90.7	-	60.5	0.0
Funds	675.9	3.1	-53.5	124.4	-116.5	-	633.5	-49.4
Total	**727.8**	**3.3**	**-54.1**	**297.4**	**-216.7**	**0.0**	**757.7**	**-50.1**
Total financial assets measured at fair value	**1,429.0**	**16.2**	**-54.1**	**807.1**	**-401.2**	**0.0**	**1,797.1**	**-39.3**

Financial liabilities 2019

Nothing to report

EUR million	Realised gains/losses	Fair value change	Total
Total gains or losses included in P&L for assets held at the end of the financial year	14.8	-54.1	-39.3

Financial assets 2018

EUR million	At 1 January	Total gains/losses in P&L	Total gains/losses recorded in OCI	Purchases	Sales	Transfers between levels 1 and 2	At 31 December	Gains/losses included in P&L for financial assets
Financial assets related to unit-linked insurance								
Equity securities	5.9	29.6	-	6.9	-35.1	0.0	7.3	0.0
Debt securities	22.7	0.3	-	4.0	-11.5	0.0	15.5	0.0
Funds	358.6	21.0	-	354.9	-56.0	0.0	678.5	21.1
Total	**387.2**	**50.8**	**0.0**	**365.8**	**-102.6**	**0.0**	**701.3**	**21.1**
Financial assets available-for-sale								
Equity securities	23.7	1.3	4.2	12.7	-3.5	-	38.4	3.9
Debt securities	5.4	0.0	-0.1	66.4	-58.3	-	13.4	-0.1
Funds	654.9	5.2	6.0	116.3	-106.5	-	675.9	11.8
Total	**684.0**	**6.5**	**10.1**	**195.4**	**-168.2**	**-**	**727.8**	**15.6**
Total financial assets measured at fair value	**1,071.2**	**57.3**	**10.1**	**561.2**	**-270.8**	**0.0**	**1,429.0**	**36.7**

Financial liabilities 2018

Nothing to report

EUR million	Realised gains/losses	Fair value change	Total
Total gains or losses included in P&L for assets held at the end of the financial year	26.6	10.1	36.7

16. Sensitivity analysis of level 3 financial instruments measured at fair value

EUR million	2019 Carrying amount	2019 Effect of reasonably possible alternative assumptions (+/-)	2018 Carrying amount	2018 Effect of reasonably possible alternative assumptions (+/-)
Financial assets				
Financial assets related to unit-linked insurance and investment contracts				
Equity securities	18.2	-	7.3	-
Debt securities	20.7	-	15.5	-
Funds	1,000.5	-	678.5	-
Total	**1,039.4**	**-**	**701.3**	**-**
Financial assets available-for-sale				
Equity securities	63.8	-12.8	38.4	-7.7
Debt securities	60.5	-2.8	13.4	-0.4
Funds	633.5	-126.7	675.9	-135.2
Total	**757.7**	**-142.2**	**727.8**	**-143.3**
Total financial assets measured at fair value	**1,797.1**	**-142.2**	**1,429.0**	**-143.3**

The value of financial assets regarding the debt security instruments has been tested by assuming a rise of 1% unit in interest rate level in all maturities. For other financial assets, the prices were assumed to go down by 20%. The Mandatum Life Group bears no investment risks related to unit-linked insurance, so a change in assumptions regarding these assets does not affect profit or loss. On the basis of these alternative assumptions, a possible change in interest levels would cause descent of EUR 2.8 million (0.4) for the debt instruments, and EUR 139.4 million (142.9) valuation loss for other instruments in the Group's other comprehensive income. The reasonably possible effect, proportionate to the Group's equity, would thus be 10.4% (11.8).

17. Investments related to unit-linked insurance contracts

	2019	2018
Financial assets designated at fair value through P&L		
Debt securities		
Issued by public bodies	0.3	39.1
Certificates of deposit issued by banks	137.8	267.5
Other debt securities	722.0	1,314.6
Total	**860.2**	**1,621.2**
Equity securities		
Listed	6,070.7	4,405.6
Unlisted	808.4	569.4
Total	**6,879.1**	**4,974.9**
Loans and other receivables	414.4	358.5
Other financial asset	16.6	5.4
Investment related to unit-linked contracts, total	**8,170.2**	**6,960.1**
Total	**8,170.2**	**6,960.1**

The historical cost of the equity securities related to unit-linked contracts was EUR 5,803 million (4,461) and that of the debt securities EUR 890 million (1,695).

18. Deferred tax assets and liabilities

Changes in deferred tax during the financial period 2019

EUR million	1 January	Recognised in OCI	Recognised in equity	31 December
Deferred tax assets				
Losses from previous years	0.1			0.1
Changes in fair values	0.0			0.0
Shadow accounting	1.7		4.3	5.9
Other deductible temporary differences	6.5	-3.5		3.0
Total	**8.2**	**-3.5**	**4.3**	**9.0**
Netting of deferred taxes				-9.0
Deferred tax assets				**0.0**
Deferred tax liabilities				
Depreciation differences and untaxed reserves	1.8	-0.1	-0.2	1.4
Changes in fair values	100.5	-5.1	27.0	122.4
Shadow accounting	1.7		4.3	5.9
Total	**103.9**	**-5.2**	**31.0**	**129.7**
Netting of deferred taxes				9.0
Total deferred tax liabilities				**120.8**

Changes in deferred tax during the financial period 2018

EUR million	1 January	Recognised in OCI	Recognised in equity	31 December
Deferred tax assets				
Losses from previous years	0.1			0.1
Changes in fair values	0.0			0.0
Shadow accounting	5.6		-3.9	1.7
Other deductible temporary differences	1.1	5.4		6.5
Total	**6.8**	**5.4**	**-3.9**	**8.2**
Netting of deferred taxes				-8.2
Deferred tax assets				**0.0**
Deferred tax liabilities				
Depreciation differences and untaxed reserves	1.8	0.0	0.0	1.8
Changes in fair values	163.8	3.4	-66.7	100.5
Shadow accounting	5.6		-3.9	1.7
Total	**171.2**	**3.4**	**-70.6**	**103.9**
Netting of deferred taxes				8.2
Total deferred tax liabilities				**95.8**

19. Taxes

EUR million	2019	2018
Profit before tax	280.1	450.4
Tax calculated at parent company's tax rate	56.0	90.1
Different tax rates on overseas earnings	-0.1	0.0
Income not subject to tax	-2.2	-2.2
Expenses not allowable for tax purposes	1.1	0.0
Consolidation procedures and eliminations	0.8	1.1
Tax from previous years	2.7	1.8
Total	**58.2**	**90.8**

20. Components of other comprehensive income

EUR million	2019	2018
Other comprehensive income items reclassifiable to P&L		
Available-for-sale financial assets		
Gains/losses arising during the year	134.9	-333.5
Income tax relating to components of other comprehensive income	-27.0	66.7
Shadow accounting	21.3	19.7
Total items reclassifiable to profit or loss, net of tax	**129.2**	**-247.1**

21. Tax effects relating to components of other comprehensive income

	2019			2018		
EUR million	Before-tax amount	Tax	Net-of-tax amount	Before-tax amount	Tax	Net-of-tax amount
Available-for-sale financial assets	134.9	-27.0	107.9	-333.5	66.7	-266.8
Shadow accounting	21.3	0.0	21.3	19.7	0.0	19.7
Total	**156.2**	**-27.0**	**129.2**	**-313.8**	**66.7**	**-247.1**

22. Other assets

EUR million	2019	2018
Interests	21.2	23.7
Receivables from policyholders	3.8	4.3
Assets arising from reinsurance operations	0.6	0.9
Settlement receivables	10.7	33.1
Assets pledged for trading in derivatives	15.7	56.0
Other	85.4	63.8
Total	**137.4**	**182.0**

Item Other comprise e.g. receivables pensions paid in advance and receivables from co-operation companies.

23. Cash and cash equivalents

EUR million	2019	2018
Cash at bank	952.1	585.5
Total	**952.1**	**585.5**

24. Liabilities from insurance and investment contracts

Change in liabilities arising from other than unit-linked insurance and investment contracts

EUR million	Insurance contracts	Investment contracts	Total
At 1 January 2019	**4,197.3**	**24.1**	**4,221.5**
Premiums	127.2	0.0	127.2
Claims paid	-459.8	-0.1	-459.9
Expense charge	-33.9	0.0	-33.9
Guaranteed interest	112.6	0.0	112.6
Bonuses	8,2	0.0	8,2
Other	-50,5	0.9	-49,7
At 31 December 2019	**3,901.0**	**24.8**	**3,925.9**
Reinsurers' share	0.7	0.0	0.7
Liability at 31 December 2019	**3,901.8**	**24.8**	**3,926.6**

EUR million	Insurance contracts	Investment contracts	Total
At 1 January 2018	**4,546.8**	**26.2**	**4,573.0**
Premiums	105.5	0.0	105.5
Claims paid	-439.7	-0.5	-440.1
Expense charge	-34.1	0.0	-34.1
Guaranteed interest	122.3	0.0	122.3
Bonuses	1.0	0.0	1.0
Other	-104.5	-1.6	-106.1
At 31 December 2018	**4,197.3**	**24.1**	**4,221.5**
Reinsurers' share	0.0	0.0	0.0
Liability at 31 December 2018	**4,197.3**	**24.1**	**4,221.5**

Change in liabilities arising from unit-linked insurance and investment contracts

EUR million	Insurance contracts	Investment contracts	Total
At 1 January 2019	**4,399.2**	**2,555.5**	**6,954.7**
Premiums	446.5	1,029.6	1,476.0
Claims paid	-529.9	-607.4	-1,137.3
Expense charge	-48.6	-31.3	-79.9
Other	638.6	264.9	903.5
At 31 December 2019	**4,905.8**	**3,211.3**	**8,117.1**

EUR million	Insurance contracts	Investment contracts	Total
At 1 January 2018	**4,793.8**	**2,271.7**	**7,065.5**
Premiums	289.4	686.7	976.1
Claims paid	-341.1	-372.1	-713.3
Expense charge	-48.0	-28.5	-76.5
Other	-294.9	-2.3	-297.2
At 31 December 2018	**4,399.2**	**2,555.5**	**6,954.7**

The liabilities at 1 January and at 31 December include the future bonus reserves and the effect of the reserve for the decreased discount rate. The calculation is based on items before reinsurers' share. A more detailed specification of changes in insurance liabilities is presented in Group's Risk Management.

Insurance contracts

EUR million	2019	2018
Liabilities for contracts with discretionary participation feature (DPF)		
Provision for unearned premiums	1,820.3	1,933.5
Provision for claims outstanding	2,077.3	2,260.5
Liabilities for contracts without discretionary participation feature (DPF)		
Provision for unearned premiums	0.0	0.0
Provision for claims outstanding	0.4	0.3
Total	**3,898.0**	**4,194.3**
Assumed reinsurance		
Provision for unearned premiums	0.2	0.2
Provision for claims outstanding	2.8	2.8
Total	**3.0**	**3.0**
Insurance contracts total		
Provision for unearned premiums	1,820.5	1,933.7
Provision for claims outstanding	2,080.5	2,263.7
Total	**3,901.0**	**4,197.3**

Investment contracts

EUR million	2019	2018
Liabilities for contracts with discretionary participation feature (DPF)		
Provision for unearned premiums	24.8	24.1
Liabilities for insurance and investment contracts total		
Provision for unearned premiums	1,845.3	1,957.8
Provision for claims outstanding	2,080.5	2,263.7
Total	**3,925.8**	**4,221.5**
Reinsurers' share		
Provision for unearned premiums	0.0	0.0
Provision for claims outstanding	0.7	0.9
Total	**0.7**	**0.9**

Liability adequacy test does not give rise to supplementary claims.

Exemption allowed in IFRS 4 Insurance contracts has been applied to investment contracts with DPF or contracts with a right to trade-off for an investment contract with DPF. These investment contracts have been valued like insurance contracts.

25. Liabilities from unit-linked insurance and investment contracts

EUR million	2019	2018
Unit-linked insurance contracts	4,905.8	4,399.2
Unit-linked investment contracts	3,211.3	2,555.5
Total	**8,117.1**	**6,954.7**

26. Financial liabilities

The financial liabilities include derivatives, debt securities and other financial liabilities.

EUR million	2019	2018
Derivative financial instruments	15.0	33.5
Subordinated debt securities		
Subordinated loan 2002	100.0	100.0
Subordinated loan 2019	249.0	0.0
Total	**349.0**	**100.0**
Total	**364.0**	**133.5**

Mandatum Life issued in 2002 EUR 100 million Capital Notes. The loan is perpetual and pays floating rate interest. The interest is payable only from distributable capital. The loan is repayable only with the consent of the Insurance Supervisory Authority and at the earliest on 2012 or any interest payment date after that. The loans is wholly subscribed by Sampo Plc. In 2019 Mandatum Life issued Solvency II Tier 2 loan of EUR 250 million. The loan matures on 4 October 2049. The loan has a fixed interest rate until the first possible redemption date on 4 October 2024, whereafter it becomes subject to variable interest rates.

27. Employee benefits

Employee benefits

In addition to statutory retirement pension insurance, the Group has certain voluntary defined benefit plans. The voluntary defined benefit plans are intra-Group and included in the insurance liabilities of Mandatum Life. The amount is negligible and they have no material impact on the Group profit or loss or equity.

Other short-term employee benefits

There are other short-term staff incentive schemes in the Group, the terms of which vary each year. Benefits are recognised in the profit or loss for the year they arise from. An estimated amount of these profit-sharing bonuses for 2019 is EUR 4.4 million.

28. Other liabilities

EUR million	2019	2018
Interests	13.2	23.2
Tax liabilities	0.0	18.2
Liabilities arising out of direct insurance operations	39.7	18.4
Liabilities arising out of reinsurance operations	6.9	6.6
Settlement liabilities	37.6	42.1
Guarantees received	2.7	2.2
Leases	9.4	0.0
Other liabilities	87.0	62.1
Total	**196.5**	**172.9**

Item Guarantees received comprise assets accepted as guarantees required in derivative trading and securities lending.
Item Leases include non-cash additions from IFRS 16 leases to the balance sheet items.
Item Other includes e.g. liabilities arising from withholding taxes and social security costs, liabilities to creditors and insurance premium advances.

Reconciliation of transition to IFRS 16 Leases

The Group as a lessee

The Group applied the modified retrospective approach allowed by the standard from 1 January 2019. The comparison year is not disclosed and the right-of-use asset equals the lease liability at the time of the transition. The ROU asset is depreciated on straight-line basis over the lease period. The Group does not apply IFRS 16 to short-term under 12 months leases, or to leases for which the underlying asset is of low-value.

The specification of IFRS 16 lease liabilities at the time of transition

EUR million	
Off-balance sheet leases 31.12.2018	12,751
Prepaid rents	-1.0
Effect from discounting	-0.8
Lease liabilities at 1 January 2019	**11.0**

The lease liabilities are discounted at a company level. The applied discount rate is 2.2%.

Items recognised in the P&L from lease liabilities

EUR million	2019	2018
Interest expenses	-0.2	-
Expenses from short-term and low-value lease liabilities	-1.6	-

29. Contingent liabilities and commitments

EUR million	2019	2018
Off-balance sheet items		
Fund commitments	1,201.9	1,054.3
Acquisition of IT-software	6.0	4.9
Total	**1,207.9**	**1,059.2**
Assets pledged as security for derivative contracts		
Cash	15.7	57.7

The pledged assets are included in the balance sheet item Other assets.

30. Equity and reserves

Equity

The number of shares at 31 December 2019 was 239,998. There was no change in the company's share capital of EUR 40.4 million during the financial year. At the end of the financial year 2019, the mother company or other Group companies held no shares in the parent company.

Reserves and retained earnings

Share premium reserve, the reserve includes the issue price of shares to an extent it was not recorded in share capital by an express decision. There was no change in the share premium reserve EUR 98.9 million during the financial year.

The legal reserve EUR 30.1 million comprises the amounts that has been transferred from the distributable equity on the basis of the decision of the AGM.

Other components of equity include fair value changes of financial assets available for sale and derivatives used in cash flow hedges, and exchange differences.

Changes in the reserves and retained earnings are presented in the Group's statement of changes in equity.

31. Related party disclosures

Key management personnel

The key management personnel in Mandatum Life consists of the members of the Board of Directors of Mandatum Life Insurance Company Limited and Executive Committee.

EUR million	2019	2018
Key management compensation		
Short-term employee benefits	1.7	1.7
Post-employment benefits	0.5	0.4
Other long-term benefits	1.3	1.6
Total	**3.5**	**3.6**

Short-term employee benefits comprise salaries and other short-terms benefits, including profit-sharing bonuses accounted for for the year, and social security costs.

Post-employment benefits include pension benefits under the Employees' Pensions Act (TyEL) in Finland and voluntary supplementary pension benefits.

Other long-term benefits consist of the benefits under long-term incentive schemes accounted for the year. The benefits are determined by terms on Group level. Mandatum Life pays the benefits allocated to its key management (note 32).

Related party transactions of the key management

The related party transactions of the key management are not material nor does the key management have any loans from the Group companies.

Associates

EUR million	2019	2018
Outstanding balances with related parties		
Debt securities, available for sale	0.0	0.0
Other assets	0.0	0.0

32. Long-term incentive schemes for management and experts

The Board of Directors for Sampo plc has decided on the long-term incentive schemes 2014 I–2017 II for the management and experts of the Sampo Group. The Board has authorised the CEO, to decide who will be included in the scheme, as well as the number of calculated bonus units granted for each individual used in determining the amount of the performance-related bonus. In Mandatum Life Group, a little less than 20 persons included in the schemes at the end of year 2019.

The amount of the performance-related bonus is based on the value performance of Sampo's A share and on the insurance margin (IM) and, also on Sampo's return on the risk adjusted capital (ROCaR). The value of one calculated bonus unit is the trade-weighted average price of Sampo's A-share at the time period specified in the terms of the scheme, and reduced by the starting price adjusted with the dividends per share distributed up to the payment date. The pre-dividend starting prices vary between EUR 38.26 and EUR 44.10. The maximum value of one bonus unit varies between EUR 57.26 and EUR 63.10, reduced by the dividend-adjusted starting price. In the schemes, the bonus depends on two benchmarks. If the IM is 6% or more, the IM-based reward is paid full. If the IM is between 4% and 5.99%, half of the bonus is paid. No IM-related bonus will be paid out if the IM stays below these. In addition, the return on the risk-adjusted capital is taken into account. If the return is at least risk-free return +4%, the ROCaR-bases incentive reward is paid out in full. If the return is +2% but less than risk-free return +4%, the payout is 50%. If the return stays below these benchmarks, no ROCaR-based bonus will be paid out.

Each plan has three performance periods and bonuses are settled in cash in three instalments. The employee shall authorise Sampo plc to buy the Sampo A shares with 50% (schemes 2017) or with 60% (scheme 2014)of the amount of bonus received after taxes and other comparable charges. The shares are subject to transfer restrictions for three years from the day of payout. A premature payment of the bonuses may occur in the event of changes in the group structure or in the case of employment termination on specifically determined bases. The fair value of the incentive schemes is estimated by using the Black-Scholes pricing model.

	2014 I	2014 I/2	2017 I	2017 I/2
Terms approved *	17.09.2014	17.09.2014	14.09.2017	14.09. 2017
Granted (1,000) 31 December 2015	575	19	-	-
Granted (1,000) 31 December 2016	561	19	0	-
Granted (1,000) 31 December 2017	364	19	563	-
Granted (1,000) 31 December 2018	177	13	528	10
Granted (1,000) 31 December 2019		7	558	10
End of performance period I 30%	Q2-2017	Q2-2018	Q2-2020	Q2-2021
End of performance period II 35%	Q2-2018	Q2-2019	Q2-2021	Q2-2022
End of performance period III 35%	Q2-2019	Q2-2020	Q2-2022	Q2-2023
Payment I 30%	9-2017	9-2018	9-2020	9-2021
Payment II 35%	9-2018	9-2019	9-2021	9-2022
Payment III 35%	9-2019	9-2020	9-2022	9-2023
Price of Sampo A at terms approval date *	37.22	37.22	44.02	44.02
Starting price **	38.26	43.38	43.81	44.10
Dividend-adjusted starting price at 31 December 2019		32.91	37.79	40.68
Sampo A - closing price 31 December 2019 38.91				
Total intrinsic value, EUR million		0.0	1.0	0.0
Liability, total EUR million 1.0				
Total cost for the financial period, EUR million 1.4				

* Grant dates vary

** Trade-weighted average for 10 trading days from the approval of terms

33. Auditors' fees

EUR million	**2019**	2018
Auditing fees	-0.3	-0.3
Other fees	-0.1	-0.2
Total	**-0.4**	**-0.5**

34. Legal proceedings

There are legal proceedings against Mandatum Life outstanding on 31 December 2019, arising in the ordinary course of business. Professional advice indicates that it is unlikely that any significant losses will arise.

35. Events after the balance sheet date

The Board of Directors proposes to the Annual General Meeting that EUR 150 million dividend will be paid.

36. Investments in subsidiaries

Nimi	Country	Holding %	Voting rights %
Asunto Oy Vantaan Raiviosuonmäki 6	Finland	100.00	100.00
Asunto Oy Espoon Matinkatu 8	Finland	100.00	100.00
Asunto Oy Espoon Aapelinkatu 6	Finland	100.00	100.00
Asunto Oy Espoon Aallonhuippu 9	Finland	100.00	100.00
Kiinteistö Oy Ahti Business Park	Finland	100.00	100.00
Kiinteistö Oy Hyvinkään Sampotalo	Finland	81.37	81.37
Kiinteistö Oy Hämeenlinnan Karhulinna	Finland	100.00	100.00
Kiinteistö Oy Galaxy	Finland	100.00	100.00
Kiinteistö Oy Helsingin Ratamestarinkatu 7a	Finland	100.00	100.00
Kiinteistö Oy Helsingin Ratamestarinkatu 7b	Finland	100.00	100.00
Kiinteistö Oy Jäkälävaara	Finland	100.00	100.00
Kiinteistö Oy Järvenpään Asemakatu 4	Finland	100.00	100.00
Kiinteistö Oy Kaupintie 5	Finland	100.00	100.00
Kiinteistö Oy Leppävaaran Säästötammi	Finland	100.00	100.00
Kiinteistö Oy Niittymaanpolku	Finland	100.00	100.00
Kiinteistö Oy Oulun Torikatu 21-23	Finland	100.00	100.00
Kiinteistö Oy Rautalaani	Finland	100.00	100.00
Kiinteistö Oy Tampereen Hatanpäänvaltie 18	Finland	100.00	100.00
Mandatum Life Vuokratontit II Oy	Finland	100.00	100.00
Mandatum Life Palvelut Oy	Finland	100.00	100.00
Mandatum Life Sijoituspalvelut Oy	Finland	100.00	100.00
Mandatum Life Vuokratontit I GP Oy	Finland	100.00	100.00
Saka Hallikiinteistö GP Oy	Finland	100.00	100.00
Mandatum Life Fund Management S.A.	Luxembourg	100.00	100.00

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Auditor's report

Auditor’s report (Translation of the Finnish original)

TO THE ANNUAL GENERAL MEETING OF MANDATUM LIFE INSURANCE COMPANY LIMITED

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of Mandatum Life Insurance Company Limited (business identity code 0641130-2) for the year ended 31 December, 2019. The financial statements comprise the consolidated balance sheet, statement of comprehensive income, statement of changes in equity, statement of cash flows and notes, including a summary of significant accounting policies, as well as the parent company’s balance sheet, income statement, statement of cash flows and notes.

In our opinion

- the consolidated financial statements give a true and fair view of the group’s financial position as well as its financial performance and its cash flows in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU.
- the financial statements give a true and fair view of the parent company’s financial performance and financial position in accordance with the laws and regulations governing the preparation of financial statements in Finland and comply with statutory requirements.

Our opinion is consistent with the additional report submitted to the Board of Directors.

Basis for Opinion

We conducted our audit in accordance with good auditing practice in Finland. Our responsibilities under good auditing practice are further described in the *Auditor’s Responsibilities for the Audit of Financial Statements* section of our report.

We are independent of the parent company and of the group companies in accordance with the ethical requirements that are applicable in Finland and are relevant to our audit, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

In our best knowledge and understanding, the non-audit services that we have provided to the parent company and group companies are in compliance with laws and regulations applicable in Finland regarding these services, and we have not provided any prohibited non-audit services referred to in Article 5(1) of regulation (EU) 537/2014. The non-audit services that we have provided have been disclosed in note 33 to consolidated financial statements and note “Auditors’ fees” to the parent company financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Most significant assessed risks of material misstatement

Below we have described our assessment of the most significant risks of material misstatement, including risks of material misstatement due to fraud, and presented a summary of our response to those risks.

We have fulfilled the responsibilities described in the Auditor’s responsibilities for the audit of the financial statements section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the accompanying financial statements.

We have also addressed the risk of management override of internal controls. This includes consideration of whether there was evidence of management bias that represented a risk of material misstatement due to fraud.

Responsibilities of the Board of Directors and the Managing Director for the Financial Statements

The Board of Directors and the Managing Director are responsible for the preparation of financial statements that give a true and fair view in accordance with the laws and regulations governing the preparation of financial statements in Finland and comply with statutory requirements. The Board of Directors and the Managing Director are also responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Assessed significant risk of material misstatement	How our audit addressed the risk
Valuation of insurance contract liabilities *We refer to the Summary of significant accounting policies, Accounting policies regarding management judgment and key sources of estimation uncertainties and Notes 24, 25 and 37.* At 31.12.2019 the Group has insurance contract liabilities representing amounting to EURm 12,043 (31.12.2018: mEUR 11,176) which represents 95% of the Group's total liabilities and it is thus the single largest liability of the Group. The life insurance contract liabilities are based on estimate of future claims payments. The estimate is based on assumptions which include uncertainty. Changes in assumptions can result in material impacts to the valuation of the liabilities. Key assumption areas include interest rate and life expectancy of policy holders.	Our audit procedures included evaluation of the governance around the overall Group reserving process, and included testing the operating effectiveness of key controls over the identification, measurement and management of the Group's calculation of insurance liabilities. We evaluated the appropriateness of methodologies and assumptions used, and independently recalculated reserves for chosen insurance contracts We involved our internal actuarial specialists to assist us in assessing the appropriateness of assumptions used. We assessed the adequacy of disclosures relating to insurance contracts liabilities.

Valuation of financial assets	How our audit addressed the risk
Valuation of financial assets *We refer to the Summary of significant accounting policies, Accounting policies regarding management judgment and key sources of estimation uncertainties and Notes 12–16, 17 and 37.* The Group's investment portfolio amounts to mEUR 12,842 (2018: mEUR 11,862) which represents 91% of the Group's total assets. Fair value measurement can be subjective, specifically in areas where fair value is based on a model based valuation. Valuation techniques for private equity funds, non-listed bonds and non-listed equities involve setting various assumptions regarding pricing factors. The use of different valuation techniques and assumptions could lead to different estimates of fair value. Specific areas of audit focus include the valuation of level 2 and 3 assets according to IFRS where valuation techniques use unobservable inputs. Of financial assets level 2 assets amount to EURm 2,144 and level 3 assets to EURm 1,797 (refer to note 14).	Our audit procedures included testing the effectiveness of controls in place over recording fair values of assets using unobservable input. We performed additional procedures for areas of higher risk and estimation, involving our valuation specialists. In respect of the investments in private equity funds, we evaluated and tested the procedures of the Group to determine the fair value of these investments. The procedures include assessment of fund net asset value based on the fair value of underlying investment, independent broker valuations and evidence of underlying financial data. We assessed the adequacy of disclosures relating to the financial assets.

In preparing the financial statements, the Board of Directors and the Managing Director are responsible for assessing the parent company's and the group's ability to continue as going concern, disclosing, as applicable, matters relating to going concern and using the going concern basis of accounting. The financial statements are prepared using the going concern basis of accounting unless there is an intention to liquidate the parent company or the group or cease operations, or there is no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance on whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with good auditing practice will always detect a material misstatement when it exists.
Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

As part of an audit in accordance with good auditing practice, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the parent company's or group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of the Board of Directors' and the Managing Director's use of the going concern basis of accounting and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the parent company's or the group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the parent company or the group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events so that the financial statements give a true and fair view.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Other reporting requirements

Information on our audit engagement

We were first appointed as auditors by the Annual General Meeting on 22.3.2002, and our appointment represents a total period of uninterrupted engagement of 18 years.

Other information

The Board of Directors and the Managing Director are responsible for the other information. The other information comprises the report of the Board of Directors.

Our opinion on the financial statements does not cover the other information.

In connection with our audit of the financial statements, our responsibility is to read the information and, in doing so, consider whether the information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. Our responsibility also includes considering whether the report of the Board of Directors has been prepared in accordance with the applicable laws and regulations.

In our opinion, the information in the report of the Board of Directors is consistent with the information in the financial statements and the report of the Board of Directors has been prepared in accordance with the applicable laws and regulations.

If, based on the work we have performed, we conclude that there is a material misstatement of the report of the Board of Directors, we are required to report that fact. We have nothing to report in this regard.

Helsinki 11.2.2020

Ernst & Young Oy
Authorized Public Accountant Firm

Kristina Sandin
Authorized Public Accountant

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