

VARMA

REPORT OF THE BOARD OF
DIRECTORS AND FINANCIAL
STATEMENTS 2019



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REPORT OF THE BOARD OF DIRECTORS 2019

In 2019, the return on Varma's investments was EUR 5.2 billion or 12.0% (-2.0%). By year-end, the market value of the investments rose to EUR 48.7 (44.0) billion. Solvency strengthened by EUR 2,027 million, and at the end of the year, solvency capital amounted to EUR 11,646 (9,619) million. Varma's efficiency remained at an excellent level: We used 62% of the amount reserved for administrative costs.

Administrative cost efficiency



Value of investments

€48.7 billion

Return on investments

12.0%

Solvency

€ 11.6 billion

Premiums written

€5.3 billion

Pensions paid

€5.9 billion

Insured customers

541,926



REPORT OF THE BOARD OF DIRECTORS 2019

The economic operating environment

Sentiment varied in the course of the 2019 economic year, and monetary policies took a turn

Uncertainty in the economic operating environment continued, due to the economic cycle, trade war and geopolitical tensions. Despite slowing down, the economy continued to grow, and instead of escalating, the US-China trade war showed signs of easing. There is no quick or exhaustive solution in sight, as major strategic issues are at stake for both parties.

In spite of the slower economic growth, it was a strong year for investors. The normalisation of monetary policies was interrupted when uncertainty over economic growth and muted inflation expectations pushed central banks to make a switch in their monetary policies.

The US economy has had the longest economic expansion in history, and unemployment is at a very low level. Private consumption and consumer confidence are boosted by the good labour market situation and strong growth in asset values. Inflation expectations continue to be rather subdued. Uncertainty in China's economy was linked to the trade war with the US. China's economy has inefficiencies, for example, in the allocation of capital. Fiscal deficit and growing public debt leave less leeway for economic stimulus.

Growth in the eurozone is expected to remain at around 1%. German industry, the driver of the European economy, has been vulnerable and has suffered from the trade war, uncertainty and challenges caused by a

structural change. The difficulties of European industry are mirrored in the growth of the entire economic area.

The new commission has an ambitious work programme, but executing a common, persistent economic policy will be challenging, since member countries still have fundamentally different views on the means and leeway available. At the core of the commission's economic policy is the Green Deal, which would require a much stronger investment appetite in order to be realised. The UK general election finally delivered a clear political mandate for Brexit. The weak eurozone economy, moderate growth expectations and the inability to coordinate economic policy make up a difficult combination in a situation where there is also limited elbow room in monetary policy.

Slower improvement in employment in Finland

Finland's economic cycle has peaked out, but the economy continued to grow, and employment also improved. Total output has remained on a positive track, but corporate sector economic indicators weakened towards the end of the year and were mirrored in businesses' investment appetite. The investment rate is relatively low in Finland compared to the rest of Western Europe, and investments in production focus on replacement investments.

The employment rate has been improving for several years now, as a result of the accelerated economic growth and improved cost competitiveness. However, employment improved at a slower rate in 2019. The current employment

rate is not sufficient to secure the sustainable financing of the welfare state's spending.

Earnings-related pension system

In 2019, the Finnish pension system ranked fourth in an annual international pension system comparison, the Mercer Global Pension Index. Finland was ranked number one in terms of the reliability and transparency of its pension system governance for the sixth time in a row. The comparison paid attention to efforts to improve the employment rate of older workers, the level of the smallest pensions, and increasing the level of funded contributions.

Prolonging careers is a key pension-policy target. The number of new commencing disability pensions has risen. There are many factors behind this trend, and according to the Finnish Centre for Pensions, the so-called activation model in the unemployment security system is one of them. A deeper understanding of the reasons behind occupational disability is essential. Varma has prepared for this by launching its own studies on the matter.

To help achieve longer careers, Varma offers its insured vocational rehabilitation when their work ability is threatened. Varma aims to manage the disability risk it insures by offering guidance and support to its customers. In its supervision release published in autumn 2019, the Finnish Financial Supervisory Authority (FIN-FSA) outlined the limits set forth in legislation for the quality and scope of disability risk management. According to FIN-FSA's earlier guidelines and the supervision release,

earnings-related pension insurance companies are allowed to manage the disability risk they insure. They can do this by offering their customers guidance and advice in the disability risk management efforts that the customers carry out through their own work ability management work.

Labour market organisations proposed changes to survivors' pensions, and legislative amendments are currently being prepared. The organisations also agreed on changes to the continued unemployment allowance. The purpose of the change is to improve the employment rate and extend careers.

Preparatory work to merge Finland's private sector and municipal sector pension systems has been initiated in accordance with the Government Programme. The objective is for the pensions of municipal employees to be insured in future under TyEL, the private-sector pension system, and to create a new earnings-related pension insurance company based on part of the insurance portfolio of the current public sector pension provider Keva. The merger is in its initial stages, and it is a challenging and complex process.

Pension contributions and return requirement on technical provisions

In 2019, the average TyEL contribution was 24.4% of the salaries or wages. Employees under the age of 53 and over the age of 62 contributed 6.75% of their pay, while the rate for employees aged 53–62 was 8.25%. Entrepreneurs' YEL contribution was 24.1% of the confirmed earnings for those under the

age of 53 and over the age of 62, and 25.6% for those aged 53–62.

The return requirement on technical provisions consisted of a 3.00% fund rate, a pension liability supplementary factor and the return on equity component. The value of the supplementary factor was 0.96% on average in 2019. The return on equity component in 2019 was 25.17%. The technical rate of interest, which is used to determine the interest rate of the oldest pension loans to Varma's customers and a number of other items, was 5.25% until the end of June and 5.00% thereafter. The insurance contribution interest rate, used to calculate pension contributions, stood at 2.00% throughout the year.

Varma's financial trends

The national Incomes Register was introduced at the beginning of the 2019 financial year, and it had a major impact on insurance-related information flows. As an earnings-related pension insurer, Varma obtains the information it needs to calculate insurance contributions and pensions directly from the Incomes Register, where they are submitted by the policyholders, i.e. Varma's customers. The introduction of the Incomes Register entailed functional development requirements, which Varma, together with other operators in the sector, successfully resolved during the financial year. The Incomes Register brought the premium income accrual information closer to real time and made the monitoring of earnings reporting clearer. Pensions paid by Varma will be reported to the Incomes Register as of the beginning of 2021.

Varma's total result at fair value was EUR 2,197 (-1,741) million. The total result for each

quarter of the year was positive. The first quarter of 2019, during which the major decline in share prices late in 2018 was corrected, was by far the strongest.

Varma's solvency strengthened during 2019 by EUR 2,027 million, and at the end of the year, solvency capital amounted to EUR 11,646 (9,619) million. Varma's pension assets in relation to technical provisions (solvency ratio) were 130.8% (127.5%). Solvency capital was at a secure level, i.e. at 1.8 (1.6) times the solvency limit. The solvency limit is changed in accordance with the risk level of the investments. Varma's strategic goal is to maintain the company's strong solvency through stable returns and operational efficiency.

The return on investments at fair value was EUR 5,241 (-902) million, which represents 12.0% (-2.0%) of the invested capital. The interest credited on the technical provisions was EUR 3,102 (913) million. Thus, the investment result for 2019 totalled EUR 2,139 (-1,816) million. Operating expenses were 38% (40%) lower than the expense loading included in insurance contributions, and the loading profit stood at EUR 53 (56) million. The underwriting result was EUR -2 (23) million and other result was EUR 8 (-4) million.

Varma pays out the entire loading profit as well as an additional 1% of the solvency capital as bonuses to its customers. Thereby, Varma's strong solvency and excellent operational efficiency benefit its clients in full. At the end of 2019, EUR 171 (153) million was transferred to the provision for current bonuses reserved for client bonuses. The transfer represents roughly 0.8% (0.8%) of the payroll of the insured.

The TyEL payroll of those insured by Varma totalled roughly EUR 21.1 (20.4) billion in 2019.

The total payroll increased 3.4%. Varma's premiums written totalled EUR 5,286 (5,118) million, of which TyEL insurance accounted for EUR 5,099 (4,935) million and YEL insurance for EUR 187 (183) million.

At the end of the financial year, 541,926 (559,981) individuals were insured by Varma. At the end of 2019, the number of valid insurance policies totalled 65,381 (62,745), covering 37,795 (36,715) self-employed persons and 504,131 (523,266) employees.

During 2019, a total of 3,834 (2,832) new TyEL insurance policies and 6,147 (5,983) YEL insurance policies came into force at Varma.

During the 2019 account transfers, EUR 74 million in net TyEL income was transferred to Varma from other earnings-related pension companies, and EUR 70 million in new TyEL policies were sold. Varma succeeded well in all customer segments.

As a result of the Incomes Register implementation, the number of income and employment notifications received by Varma increased fourfold, totalling 9.7 (2.5) million. Income data is reported to the Incomes Register regularly after earnings are paid.

Varma provides policyholders with services through its own service channels and through

	31 Dec 2019	31 Dec 2018	Change
Number of insured			
TyEL ¹	504,131	523,266	-19,135
YEL	37,795	36,715	1,080
Total	541,926	559,981	-18,055

¹ The method for calculating the number of insured changed in 2019, and the figures are not comparable. This is due to a change in the reporting method of income information.

	31 Dec 2019	31 Dec 2018	Change
Number of insurance policies			
TyEL	27,586	26,030	1,556
Number of pensioners			
Part-time pension	99	377	-278
Partial early old-age pension	4,632	3,585	1,047
Survivors' pension	50,065	50,350	-285
Disability pension	21,547	22,646	-1,099
Old-age pension	255,031	253,595	1,436
Early old-age pension	12,272	12,859	-587
Years-of-service pension	10	2	8
Total ²	343,656	343,414	242
	29,251	29,431	-180
Those receiving TEL/YEL supplementary pension	43,102	43,442	-340

² Those receiving YEL pension

the service networks of If P&C Insurance and the Nordea Group.

In 2019, a total gross amount of EUR 5,856 (5,668) million in pensions was paid out. The number of pension recipients remained at the same level as the previous year, and at year-end, Varma was paying pensions to 343,700 (343,400) people.

A total of 22,340 (22,476) new pension decisions were made during the year. The number of new pension decisions decreased 0.6% compared to 2018, and the total number of all pension decisions was 2.0% higher than in 2018. Old-age pension decisions numbered 10,519 (11,137), disability benefit decisions 5,959 (6,024) and partial early old-age pension decisions 2,351 (1,967). Continuation decisions on temporary pensions totalled 4,835 (4,488), and other decisions numbered 24,894 (24,093). Other decisions include decisions and preliminary decisions required as a consequence of the changes in pension rights. The share of rejected new disability pension applications was 34.6% (33.0%). Pension applications made online accounted for 54% (50%) of all pension applications.

The number of disability pension applications continued to grow in 2019, and were up 7.1% compared to 2018. The strongest growth, at 15.5%, was seen in continuation applications. The number of new disability pension applications increased by 4.6%. Musculoskeletal diseases (36.7%) and mental health disorders (33.8%) were most often cited as the main reasons for occupational disability. The proportion of mental health disorders has risen and musculoskeletal diseases have declined. Factors affecting the increase in disability pension applications include the rise in the employment rate, the higher retirement age, and the activa-

tion model, but also the transformation of work such that it no longer matches earlier competence and work ability. Vocational rehabilitation applications remained at the level of 2018.

Varma's total processing time for pension applications in 2019 was 25 days, which was 10 days shorter than the average processing time in the earnings-related pension sector.

Vocational rehabilitation is an alternative to disability pension, and the number of rehabilitation cases at Varma increased again. Rehabilitation has proven to be successful, as about 77% of those who received rehabilitation through Varma returned to the job market either in full or partly. Varma has for years been a forerunner in vocational rehabilitation, and the company actively steers those with a work ability risk to rehabilitation. A larger share of Varma's customers use rehabilitation to return to working life than retire on disability pension. Throughout 2019, Varma assisted its client companies in managing personnel risks through client-oriented co-ordination of rehabilitation services and pension decision services, which also helps clients to manage their pension costs and support their employees' ability to continue at work.

Varma manages the disability risk of its insurance portfolio also by contributing to the costs of customers' work ability risk management efforts in accordance with jointly agreed and often multi-year plans and contracts. Varma has been publishing its new well-being at work contracts since April 2017.

In terms of customer service, Varma's eServices are a key service channel. Through Varma's online services, the insured can obtain the most recent estimate of their pension amount at their planned retirement age. Of these estimates, 96.6% (91.1%) were calculated

online. Pensions can also be applied for, and the status of the application can be tracked, online. A total of 14,953 (14,135) applications were submitted electronically during the year.

The insured can see the development of their earnings-related pension in their pension record. As of 2019, information concerning any income paid by the employer is transferred directly from the Incomes Register to the pension record. Altogether 123,000 people checked their pension records online a total of 150,000 times. Varma sends a pension record to those insured who want to have their information on paper once every three years. In 2019, Varma sent a total of 204,000 (197,000) pension records.

Technical provisions

Varma's technical provisions increased 5.7% (-0.5%) to EUR 38,608 (36,521) million. They contain a provision of EUR 171 (154) million for current bonuses reserved for client bonuses, a provision of EUR 790 (1,486) million for future bonuses contained in the solvency capital, and EUR 1,424 (-255) million in an equity-linked provision for current and future bonuses.

Changes in the insurance portfolio

Varma received part of the insurance portfolio of a pension fund at the end of the financial year, and transferred part of its own insurance portfolio to another pension fund. The amount of pension liabilities transferred to Varma totalled EUR 25 million, and the pension liabilities transferred from Varma were EUR 16 million.

Investments

In 2019, Varma's investments showed strong returns as the markets rebounded, with central banks' help, from the turbulence of late 2018. The return on investments stood at 12.0%

(-2.0%), and at the end of December, the value of investments amounted to EUR 48,709 (44,015) million. The good returns raised Varma's solvency ratio, which recovered to 130.8% (127.5% on Jan 1).

Varma's investments yielded very good returns while the markets enjoyed a strong upward trend. Listed and unlisted equity investments, infrastructure investments, and private equity investments yielded the best returns in 2019. Investments in unlisted investees diversified risks and generated strong returns. In Varma's investment allocation, the weight of listed equities was gradually raised as the year progressed. The returns on hedge funds, fixed-income investments and real estate investments were also relatively strong in the current interest rate environment. The US dollar appreciated somewhat during the year. At the end of the year, the average nominal investment return over five years was 5.2%, and over ten years 5.8%. The corresponding real returns were 4.5% and 4.4%.

Considering the low interest rate level, the return on fixed-income investments was strong, at 4.5% (-1.8%). Behind the relatively good performance were central banks' accommodative monetary policy, more moderate inflationary expectations and a weaker growth outlook, which weighed down both risk-free interest rates and corporate bonds' risk premiums. The interest rates of government bonds hit bottom in the third quarter of the year, after which the worst recession concerns subsided, and interest rates took a slight upward turn. The interest rates for eurozone government bonds showed rather congruent development, but the overall returns were the strongest in the higher risk countries, such as Greece and Italy. The long-term interest rates of Germany,

which is seen as a safe haven, declined to as low as -0.7%, but recovered and approached zero towards year-end. The European Central Bank (ECB) cut its key deposit rate to -0.5%, which kept the money market interest rates negative. The return on the loan portfolio was 4.0% (3.7%), on public sector bonds a more moderate 2.6% (-4.2%), on other corporate bonds as much as 6.6% (-2.0%), and on other money-market instruments 0.4% (-0.1%).

The global equity markets showed very strong returns in 2019, and most of the major equity indices ended up rising more than 20%. The US equity market's performance was exceptionally good, in addition to which the strengthened dollar boosted US equities' euro-denominated returns. A couple of short-lived corrections were seen during the year, but the market tone remained positive as the central banks' actions improved the risk sentiment. Differences between geographical areas were rather large, but with a few exceptions, all of the major indices were on the rise. Finnish equities generated somewhat weaker returns than the rest of Europe, but as a whole, the returns on listed equities stood at 25.4% (-8.3%). Private equity investments also generated strong returns, at 15.1% (17.5%), while infrastructure and unlisted equity investments generated a return of 16.9% (3.8%).

The return on real estate investments was 4.1% (5.5%). Direct real estate investments yielded a return of 3.9% (3.9%) and real estate investment funds 4.7% (10.6%). Rental activity

was at a high level, and the portfolio's occupancy rate was excellent. During the year, Varma sold the head office of SOK Corporation in Helsinki and invested in the OOPS office campus in Leppävaara, Espoo. The merger of the Jumbo Shopping Centre and Flamingo Entertainment Centre located in Vantaa to form the largest shopping and entertainment centre in the Nordics was carried out in the autumn. Property development was active, and projects initiated during the year include the planning of the Keilaniemen Portti office building in Espoo, Stora Enso's head office building in Katajanokka, Helsinki, and the hotel development on Annankatu street in Helsinki. The proportion of indirect investments grew, but the returns were weighed down especially by the negative value change in investments in the UK. At the end of the year, more than a third of sites in Varma's office premise portfolio had BREEAM environmental certification.

The return on other investments was 4.5% (-1.4%). Hedge funds were effective in diversifying the equity and fixed-income market risk, yielding a return of 5.0% (1.6%), while the return on alternative risk premium investments, included in other investments, was slightly negative.

Varma has US-dollar-denominated investments in hedge funds, equities, corporate bonds and private equity funds. In accordance with Varma's investment policy, part of the currency risk is hedged. During the year, the appreciation of the US dollar supported equity

returns to some extent. In terms of operations, foreign currency risks are managed as a single entity, and in financial reporting the exchange rate impact is included in the investment returns of various asset classes.

Varma's investment activities focussed on maintaining the company's strong solvency and broad diversification of investments, with a strong emphasis on risk management. In its investment risk management, the company used derivatives for hedging purposes and to control the risk level of the portfolio.

The market risk of investments is the greatest risk affecting the company's result and solvency. Equities constitute by far the greatest market risk. The VaR (Value-at-Risk) figure describing the total risk of Varma's investments stood at EUR 1,371 (1,777) million.

Varma's share ownership policy

The central principles in Varma's ownership policy are high-quality governance in the companies in which it has a holding, transparency of operations, active engagement, and the monitoring of incentive schemes for key personnel. The share ownership policy was updated in 2019, and the policy is available on Varma's [website](#). In 2019, Varma participated in the Annual General Meetings of 65 companies and in the work of 28 companies' Shareholders' Nomination Boards. Varma's [website](#) contains a list of the company's memberships on the Nomination Boards of listed companies.

Operating expenses

Varma's operational efficiency is very good. Varma used 62% (60%) of the expense loading, included in the pension insurance contributions, to cover operating expenses. Controlling

operating expenses is a key objective for Varma while simultaneously improving operational efficiency. Good operational efficiency benefits Varma's customers by means of client bonuses. Varma's goal is to manage the assets of both present and future pensioners as efficiently as possible.

Increasing operational efficiency also requires continuous control of human resources and, in particular, IT system expenses, as these account for most of Varma's operating expenses. Overall operating expenses decreased 0,6%, totalling EUR 124 (125) million.

Varma is actively involved in the development and administration of the pension sector's joint information systems, and expects from the joint systems transparency and efficiency in terms of costs.

Personnel

The average number of the parent company's personnel and the salaries paid during the financial year are shown in the table below.

Tieto Esy, which is included in the Consolidated Financial Statements using the equity method, had an average of 38 (38) employees in 2019.

At year-end, Varma's personnel were distributed as follows: pension services 28% (28%), insurance and actuary services 18% (19%), customer service departments 13% (12%), investment operations 13% (13%), and other functions 28% (28%). After the end of the financial year, services related to disability risk management were re-organised into a separate function, into which 14% of Varma's personnel was transferred. These employees previously worked in pension services and customer services.

	2019	2018	2017	2016	2015
Average number of personnel	537	532	524	540	549
Salaries and remunerations, EUR million	37.6	40.1	39.3	36.0	39.6

The PeoplePower Index, measuring employee satisfaction and engagement in Varma's employee survey, was 75.2 (72.2), and Varma was once again ranked as one of Finland's Most Inspiring Workplaces. Varma placed second in the Responsible Summer Job campaign's large employer category. Our personnel played a key role in the strategy work carried out during the financial year. Varma's personnel are also highly committed to executing strategic initiatives in the financial year 2020.

Group companies and associates

At the end of 2019, the Varma Group comprised 123 (128) subsidiaries and 17 (17) associates. The most important subsidiaries and associates are Tieto Esy Ltd (50.1%), NV Kiinteistösiijoitus Oy (45.0%), Serena Properties AB (43.0%) and CMCV Kungens Kurva Holdco AB (45.0%). The Varma Group also owns 50% of the guarantee capital of Kaleva Mutual Insurance Company. Most of the subsidiaries and associate companies are real estate companies.

Governance

At Varma's Annual General Meeting, policyholders have about 78%, the insured about 20%, and the Sampo Group (the owner of the guarantee capital) about 2% of the votes.

Varma's Annual General Meeting was held on 14 March 2019. The General Meeting appointed eight new members to the Supervisory Board, raising the number of members from 28 to 32. Kari Ahola, Lasse Heinonen, Mika Joukio, Risto Kalliorinne, Mari Keturi, Johanna Moisio, Panu Routila and Sauli Vääntti were elected as new members to the Supervisory

Board. The Annual General Meeting approved the financial statements and discharged the Board of Directors, the Supervisory Board and the President and CEO from liability for the financial year 2018.

Kari Jordan (Chairman), Saana Siekkinen (Deputy Chairman), Satu Wrede (Deputy Chairman), Juri Aaltonen, Eero Broman, Petri Castrén, Jukka Erlund, Erkki Etola, Olavi Huhtala, Juha Häkkinen, Jukka Jäämaa, Kari Kauniskangas, Ville Kopra, Tapio Korpeinen, Timo Koskinen, Pekka Kuusniemi, Päivi Leiwo, Olli Luukkainen, Jari Suominen, Leena Vainiomäki, Petri Vanhala, Jorma Vehviläinen, Christoph Vitzthum and Anssi Vuorio continued as Supervisory Board members.

The Chairman of Varma's Supervisory Board, Kari Jordan, resigned from the Supervisory Board on 28 March 2019, following his election as a member of Nordea's Board of Directors. According to the Act on Earnings-Related Pension Insurance Companies, the chairman of a supervisory board cannot be a member of a bank's board of directors. Varma's Supervisory Board held its constitutive meeting on 16 May 2019. The Supervisory Board elected Christoph Vitzthum as its Chairman. Saana Siekkinen and Satu Wrede were re-elected as deputy chairmen. Saana Siekkinen resigned from the Supervisory Board on 31 December 2019 after having been elected as a new member to Varma's Board of Directors.

Authorised Public Accountants Antti Suominen and Jenni Smedberg have served as Varma's auditors. Authorised Public Accountant Robert Söderlund and Ernst & Young Oy have served as the deputy auditors.

As of the beginning of 2019, Varma's Board of Directors is composed of Jari Paasikivi

(Chairman), Antti Palola (Deputy Chairman), Kai Telanne (Deputy Chairman), Riku Aalto, Eila Annala, Johanna Ikäheimo, Rolf Jansson, Ari Kaperi, Jyri Luomakoski, Petri Niemisvirta, Ilkka Oksala and Pekka Piispanen, and deputy members Eija Hietanen, Liisa Leino, and Risto Penttinen.

In its meeting on 27 November 2019, Varma's Supervisory Board selected Saana Siekkinen and Mari Walls as new members, and Timo Saranpää as a deputy member of the Board of Directors, effective 1 January 2020. Ilkka Oksala was also chosen as a deputy member. He served as a member of the Board of Directors until 31 December 2019. Board of Directors member Johanna Ikäheimo and deputy members Eija Hietanen and Liisa Leino resigned from the Board on 31 December 2019.

An up-to-date Corporate Governance Statement based on the recommendations of the Finnish Corporate Governance Code is presented on Varma's [website](#).

Capital and reserves

Varma has 71 guarantee capital shares, which are held by Sampo Plc and Mandatum Life Insurance Company Limited. Under the Articles of Association, interest approved by the Annual General Meeting is paid on the guarantee capital of EUR 11.9 million each year. The maximum rate is the technical interest rate applied to the insurance provided in accordance with the legislation on employee pensions plus one percentage point.

Risk management

The goal of Varma's risk management is to identify and manage, in accordance with the defined risk appetite, risks that the company is

subjected to, arising from and centrally linked to its business activities, and to secure continuity of operations. As a responsible operator, Varma considers it vital that the execution of the company's core task as a provider of statutory pension insurance is guaranteed and adequately efficient under all circumstances.

Varma's risk management activities are guided by the principles for the risk management system, which are annually approved by the Board of Directors. Company-level risk management is an element of the finance and actuary functions in order to ensure that risk reporting and risk management is independent of the risk-taking function. As of 2017, the company has drawn up a risk and solvency estimate for the Board of Directors, pursuant to the act on earnings-related pension companies.

As a provider of statutory earnings-related pension insurance, Varma's main risk is related to solvency management. The single largest risk factor in terms of solvency management is related to investment performance. When investment returns exceed the return requirement on technical provisions, the company's solvency improves, and if they fall short of the return requirement, solvency declines. The principles for investment risk management are determined in the company's investment plan. The plan documents the general security goals set for investments, the diversification and liquidity goals of investments, and the principles for organising currency risk hedging. The Board of Directors assesses the investment risks in terms of changes in value, expected returns, security and the principles of foreign currency policy, the company's risk-bearing capacity in terms of investments, and the development of the company's solvency.

Other major risks in 2019 focussed on developing the business in a changing operating environment, and external services, such as the first operating year of the Incomes Register. More information about strategic, financial, investment and operative risks, as well as related quantitative data, is provided in the notes to Varma's financial statements.

Sustainability

Varma's most essential sustainability impacts are defined in the company's Sustainability Programme. The programme was revised in 2018, and its focal areas are promoting work ability and good working life, mitigating climate change, ethical business, open communication and responsibility for Varma employees.

Varma has assessed its sustainability risks relating to operations and business relations and has put in place comprehensive management systems and sufficient and appropriate processes, which ensure duty of care as regards these risks.

Varma's sustainability targets and measures are explained more broadly in a separate report conforming to the Global Reporting Initiative (GRI) guidelines. The report is integrated in Varma's online annual report, which was published in February.

Report on non-financial information

Business model description

Varma has a responsible core task – to secure pensions. Taking care of personnel and responsibility for the environment hold the greatest importance in Varma's operations and in the supply chain. The biggest impacts

of Varma's investments operations relate to environmental responsibility, social responsibility, responsibility for Varma's employees, respecting human rights and fighting corruption and bribery.

The key policies guiding Varma's sustainable business operations are the Sustainability Programme, Code of Conduct, Principles for Responsible Investment, Climate Policy for Investments, and Supplier Code of Conduct.

Social responsibility and employee-related responsibility

For Varma, social responsibility means high-quality and smooth implementation of pension provision, promoting our customers' work ability and responsibility for our employees.

Varma has been improving its pension application processing to provide faster pension decisions to its customers. The average processing time of all pension applications shortened from 31 days in 2018 to 25 days in 2019. That is 10 days shorter than the average for the sector. Varma's goal is to ensure that pensioners receive uninterrupted income and that pension is paid to their bank account during the first month. In 2019, the first pension was paid within the target period to 86.5% of new pensioners.

Varma's goal is to lengthen the careers of its client companies' employees and reduce disability pensions by developing work ability management and offering effective rehabilitation. In 2019, the average disability pension contribution category of Varma's client companies was 3.6 (3.7). Of Varma's vocational rehabilitation customers, 77%, i.e. 1,580 people, returned to working life during the year.

During the financial year, Varma rejected

34.6% (33.0%) of new disability pension applications. The rejection rate for all earnings-related pension companies was 33.7% (31.5%). The Pension Appeal Board changed Varma's disability pension decisions in 14.2% (13.9%) of the cases it handled. The corresponding rate for the entire private earnings-related pension sector was 13.0% (13.2%).

Varma takes care of the well-being at work, competence, and equal and non-discriminative treatment of its personnel. The achievement of goals in the different areas is monitored through an annual employee survey, among other means. The PeoplePower Index, measuring Varma employees' satisfaction and engagement, was 75.2 (72.2), which equals a good rating. Varma was included for the second time on the list of Finland's Most Inspiring Workplaces and placed second in the Responsible Summer Job campaign's large employer category.

The realisation and experience of equality and non-discrimination are measured through a separate survey, which is conducted once every two years to identify any areas needing improvement. In 2019, Varma focused on developing self-directed work teams and diversity. In order to increase the transparency of the remuneration system, Varma for example carried out a market salaries comparison, where the total salaries were compared to the finance sector's market salaries, taking into account job requirements and performance. The goal has been to increase both personnel's understanding of how their pay is formed and the transparency of compensation through open job grading and performance assessment based on common criteria.

Environmental responsibility and mitigating and adapting to climate change

Varma's opportunities to influence the environment can be examined in terms of its operations (Varma's office building and the environmental impact of the work performed in it), its supply chain and its investments. The biggest opportunities for influencing are through Varma's investment operations.

Mitigating climate change is one of Varma's key sustainability targets. Climate change also requires investors to prepare for the change and manage the related risks, as climate change is shaping the business opportunities of different sectors and influencing future investment valuations.

Varma's goal is to develop its investment portfolio so that it is aligned with the Paris Agreement's target of reducing emissions to limit global warming to 1.5 degrees Celsius in comparison to the pre-industrial level. Varma published its revised climate targets in 2019. The company commits itself to developing its portfolio towards carbon neutrality in 2020–2035.

Climate change also presents investors with return opportunities. Varma composes from the investments in different asset classes a climate-friendly investment allocation, which includes investees benefiting from and/or offering solutions to climate change. The target is for the allocation to represent 20% of the investment portfolio by 2025.

When it comes to mitigating climate change, it is critical for global index investors to shift their focus towards lower-carbon investments. In 2019, Varma developed, in collaboration with other parties, two sustainable exchange-traded funds (ETF), and invested a total of EUR 700 million in them.

Climate risk management and reporting

Varma constantly analyses the financial risks and opportunities and the business impacts brought by climate change. As part of the Sustainability Report, Varma reports on business impacts caused by climate change in accordance with the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD).

One tool for monitoring the management of climate-related risks is the carbon footprint, which is measured for direct equity investments, listed corporate bonds and direct real estate investments. In comparison to the baseline of 2015, the carbon footprint of Varma's listed equity investments in relation to net sales declined 16% and that of listed corporate bonds 20%. The CO₂ footprint of real estate investment was 27% lower per gross square metre than in 2015.

Varma requires its investees to have a plan for reducing their emissions and encourages companies to disclose, in accordance with TCFD, information about how climate change is included in the company's governance, strategy and risk management, especially in emissions-intensive industries.

Varma also does not invest in coal mining operations, and direct shareholdings in oil exploration are negligible, at 0.02%. Of Varma's direct equity investments, 13% were in companies that use fossil fuels in their production to a major extent, while the corresponding figure for the benchmark index was 12%. Varma is committed to exiting from investments in thermal coal by 2025, and to exclude oil exploration from its investments by 2030.

Varma has also identified industries with a need for enhanced ESG screening, i.e. with higher environmental, social and governance risks. En-

hanced ESG monitoring and analysis concerns, for example, so-called transition industries that have a high exposure to climate risks.

Varma has defined industries that, in terms of climate change, both offer the greatest opportunities for emission reductions through their business and are also clearly exposed to risks caused by climate change mitigation, such as regulation and market risks. The transition industries comprise the oil & gas industry, electricity & heat production, and the automotive, mining, concrete, chemical and transport industries.

Varma has looked into the proportion of the transition industries in listed equity and fixed-income investments. At the end of 2019, the total share of these industries in the analysed asset classes was smaller than in the global benchmark index. Varma also analysed the contribution of different transition industries to the carbon intensity of Varma's direct equity investments at the end of 2019. The results show that electricity generation accounted for half of the carbon intensity.

Varma also follows the transition industries' proportion in private equity and infrastructure funds. In future, the goal is to raise the share of renewable energy in electricity generation to 50% in our investments by 2030.

Scenario analysis

Varma has carried out scenario analyses based on global climate models in order to determine how well its investments are aligned with the targets of the Paris Agreement.

The development of Varma's real property portfolio was examined in an analysis which included the carbon dioxide emissions from the heating and electricity of business and residential properties owned by Varma. The

analysis shows that the future emissions from Varma's real property are, using the baseline scenario, in line with Science Based Targets' 1.5 degrees Celsius, but in order to reach the targets, the emissions from real property should decline 92% by 2050. The biggest emission reductions can be achieved by purchasing green electricity for business premises – residential properties owned by Varma already use green real estate electricity. Additional emission reductions can be achieved with solar electricity and heat pumps. The development of the real property portfolio's emissions is also closely linked to the fact that district heating in Helsinki, Espoo and Tampere has become greener, i.e. it is increasingly based on renewable energy sources.

Of the real property directly owned by Varma, 70% is located in the Helsinki metropolitan area. Practically all the buildings are located within a radius of approximately 10 kilometres from the seashore, and thus their climate burden is higher than average. In addition to the risk of a sea flood, slanted rain and strong winds may cause problems in controlling moisture levels in the buildings. At Varma, this is taken into account in building condition surveys and facade solutions for new buildings.

A sea flood analysis was also performed on Varma's real estate portfolio, according to which the risk is low. Varma takes the sea flood risk into account especially in new development projects and when purchasing new buildings.

Varma examined the development of direct equity and fixed-income investments' carbon footprint during 2016–2019 in comparison to the reduction targets set out in the

new climate policy. For Varma to meet the new climate targets, the emissions of investees with high emissions must decline annually or, alternatively, Varma needs to reduce its positions in these investees.

Environmental impacts of Varma's operations and the supply chain

The environmental impacts of Varma's operations are controlled using WWF's Green Office system. The Salmisaari office building was audited in 2019, and Varma was granted Green Office certification. In order to reduce the carbon footprint of its own operations, Varma has shifted to using green electricity and had a solar power system installed on the roof of its office building. The carbon footprint of the company's own operations was 44% lower compared to the 2015 baseline. At the beginning of 2020, Varma introduced green district heat, which is produced using waste heat and further lowers the operational carbon footprint.

The environmental aspects of the supply chain are taken into account in the Supplier Code of Conduct, in which our suppliers are encouraged to use a certified environmental system or a documented operating method for managing their environmental matters.

Respecting human rights and fighting corruption and bribery

In the Code of Conduct, Varma commits to combating the grey economy and bribery, and following responsible investment principles, among other things. Varma is also committed to operating in accordance with the UN's principles concerning business and human rights and expects the same from its supply chain.

Varma's own operations have not been found to entail major human rights risks. Varma's Code of Conduct provides anti-bribery and anti-corruption guidelines concerning, for example, offering and accepting gifts and hospitality and avoiding conflicts of interest. An online course helps raise awareness of the Code of Conduct, and in 2018, the course was completed by 91% of Varma's employees. The course is taken every two years and is due next in 2020. The Code of Conduct is complemented by other internal guidelines and instructions relating to, for example, data security and data protection, and the identification of money laundering.

Sustainable supply chain management

Varma has analysed its supply chain in order to identify sustainability matters, and determined the sustainability requirements which are contained in the Supplier Code of Conduct. Varma expects its direct service providers to commit to the sustainability requirements. A direct service provider is responsible for its own supply chain.

The Supplier Code of Conduct covers, among other things, good business practices, human rights, occupational safety and health, and respect for the environment. It also includes a notification requirement and a permission for audits.

Varma will update its real property purchase criteria in 2020 in order to promote low-carbon circular economy solutions.

Varma expects its partners and suppliers to sign an agreement on complying with sustainability requirements. The first tier of Varma's supply chain mainly covers Finland alone: of all purchases made in 2019, Finnish service and goods providers accounted for 98.7% (98.8%).

Main purchases relate to construction activities, the real estate business, and IT services.

Evaluation of investees' sustainability

Varma expects the listed companies that it invests in to comply with local legislation and international standards and agreements, typically the principles of the UN Global Compact initiative on social responsibility, and to respect human rights. Varma reviews the compliance with the standards with the help of an external service provider, which examines Varma's direct listed equity investments, listed corporate bond investments and equity funds twice a year. In September 2019, the norms-based screening covered 25% of all of Varma's investments. At the end of the year, listed equity investments and listed corporate bond investments included three companies with a confirmed environmental violation and an ongoing engagement process.

A typical channel for engagement is decision-making portfolio managers' meetings with investees. In 2019, Varma had around 300 corporate meetings, in which the integration of sustainability in the strategy and business of the investees was discussed. In 2019, Varma was represented in 28 companies' Shareholders' Nomination Boards and participated in the Annual General Meetings of 65 companies.

For ethical reasons, Varma excludes from its direct investments companies that concentrate on the manufacture of tobacco and companies that manufacture controversial weapons, such as nuclear weapons, anti-personnel mines, cluster bombs, and chemical and biological weapons.

In the name of climate change mitigation, Varma has excluded investments in companies that rely on coal- or lignite-based operations

for more than 30% of their net sales. In direct investments, Varma strives to engage with companies with the aim of having them decommission coal power plants by 2030.

Varma signed the UN-supported Principles for Responsible Investment (PRI) in 2011. Varma reports on its responsible investment annually in accordance with the PRI framework. PRI included Varma in the PRI Leaders' Group in an assessment carried out in 2019, which rated investors according to the responsibility of their practices when selecting and assessing external asset managers.

Environmental ratings are a concrete way to develop the sustainability of real estate. Varma's goal is to have its most important buildings certified according to the BREEAM environmental rating system by 2025. The quality system is particularly aimed at improving how energy efficiency is monitored and verified. The goal is to achieve a rating of at least "Good" or "Very Good". In 2019, eleven buildings owned by Varma were granted BREEAM In-Use environmental certification. At year-end 2019, a total of 48 of Varma's real properties had environmental certification, making up 39% of the real estate base under our direct ownership.

Varma's goal is to make use of circular economy models in its real estate business. The principles of circularity will be integrated in all the processes of new construction and renovation projects as well as maintenance.

Outlook

The risks related to the economic operating environment levelled off towards the end of 2019. The biggest risks are connected to the escalation of trade policy and geopolitical tensions. On the other hand, the decline of

the tensions could be a major contributor to a stronger economy.

Finland is a small, open economy whose success and possibilities to finance current transfers and well-being services – including pensions – depend on how well we manage to sell our production to larger markets. There is plenty of uncertainty relating to the economic development of export markets, especially in Europe. At the same time, there is very little monetary policy leeway in the eurozone, and the co-ordination of financial policy has not been successful.

The employment rate will improve at a slower rate, and the muted investment appetite in terms of both production capacity and research and development undermines the economy's growing conditions in Finland. The increase in age-related spending will allow less latitude in public finances, and the window for preparing for the increased spending is closing. In addition to economic challenges, the low birth rate contributes to major uncertainties regarding the sustainable financing of the pension system in the long term.

The zero-interest-rate environment is causing problems for pensions systems all over the world. Low interest rates and muted inflationary expectations have steered institutional investors' assets to higher-risk and lower-liquidity investees. Strong corrections cannot be ruled out, but Varma's strong solvency will secure pensions even in possible sharp market corrections.

Varma continues to effectively implement the earnings-related pension system.

FINANCIAL STATEMENTS 31 DEC 2019

Income statement

1 Jan–31 Dec, € million	Notes	Parent Company 2019	Parent Company 2018	Group 2019	Group 2018
Technical account					
Premiums written	1	5,285.6	5,118.0	5,285.6	5,118.0
Investment income	3	5,907.4	5,720.3	5,893.2	5,694.7
Claims incurred					
Claims paid	2	-5,656.5	-5,438.4	-5,656.5	-5,438.4
Total change in provision for claims outstanding		-535.3	-608.3	-535.3	-608.3
Portfolio transfers		6.3	0.6	6.3	0.6
		-6,185.5	-6,046.1	-6,185.5	-6,046.1
Change in provision for unearned premiums					
Total change		-1,551.7	761.5	-1,551.7	761.5
Portfolio transfers		4.8	0.2	4.8	0.2
		-1,546.9	761.7	-1,546.9	761.7
Operating expenses	4	70.0	-68.2	-70.0	-68.2
Investment expenses	3	-3,377.3	-5,471.0	-3,368.2	-5,441.7
Balance on technical account		13.4	14.7	8.3	18.5
Non-technical account					
Balance on technical account		13.4	14.7	8.3	18.5
Share of associated companies' profit				17.6	5.4
Income taxes on ordinary activities					
Taxes for the financial year		-6.7	-7.9	-6.7	-7.9
Profit/loss on ordinary activities after taxes		6.7	6.8	19.2	16.0
Minority interest in the result for the financial year				0.1	0.0
Profit/loss for the financial year		6.7	6.8	19.4	16.1

Balance sheet

31 Dec, € million	Notes	Parent Company 2019	Parent Company 2018	Group 2019	Group 2018
ASSETS					
Intangible assets					
Other intangible assets	17	0.2	0.4	0.2	0.4
Investments					
Real estate					
Real estate and real estate shares	14	1,430.4	1,533.3	2,104.3	2,210.7
Loans to Group companies	14	747.2	751.4		
		2,177.7	2,284.7	2,104.3	2,210.7
Investments in Group companies and in participating companies					
Shares and participations in Group companies	12 13	4.3	4.3	0.5	0.6
Shares and participations in participating interests	12 13	18.5	18.5	45.0	27.5
		22.8	22.8	45.5	28.1
Other investments					
Shares and participations	16	26,362.4	23,963.4	26,377.0	23,976.3
Money-market instruments		6,221.5	6,947.8	6,221.5	6,947.8
Loans guaranteed by mortgages		260.3	288.6	260.3	288.6
Other loan receivables	18	1,999.9	1,559.1	1,999.9	1,559.1
		34,844.1	32,758.8	34,858.7	32,771.7
		37,044.5	35,066.3	37,008.5	35,010.5
Receivables					
Direct insurance operations					
Policyholders		632.6	325.8	632.6	325.8
Other receivables					
Other receivables		969.1	544.6	973.9	553.5
		1,601.8	870.4	1,606.6	879.3
Other assets					
Tangible assets					
Equipment	17	2.5	2.7	2.5	2.7
Other tangible assets	17	0.9	0.9	0.9	0.9
		3.4	3.6	3.4	3.6
Cash at bank and in hand					
		791.6	1,330.4	791.9	1,331.1
		795.0	1,333.9	795.3	1,334.7
Prepayments and accrued income					
Accrued interest and rent		68.3	76.4	70.6	79.5
Other prepayments and accrued income		3.8	2.6	6.0	4.8
		72.1	79.0	76.6	84.3
TOTAL ASSETS		39,513.5	37,350.0	39,487.2	37,309.1

Balance sheet

31 Dec, € million	Notes	Parent Company 2019	Parent Company 2018	Group 2019	Group 2018
LIABILITIES					
Capital and reserves					
Guarantee capital		11.9	11.9	11.9	11.9
Other reserves		116.4	111.1	116.4	111.1
Profit/loss brought forward		1.5	0.6	-52.7	-62.8
Profit/loss for the financial year		6.7	6.8	19.4	16.1
	26	136.5	130.5	95.0	76.3
Minority interest					
				12.5	12.6
Technical provisions					
Provision for unearned premiums	23	20,274.1	18,722.8	20,274.1	18,722.8
Provision for claims outstanding	23	18,334.0	17,798.6	18,334.0	17,798.6
		38,608.0	36,521.4	38,608.0	36,521.4
Liabilities					
Direct insurance operations		77.0	30.1	77.0	30.1
Other liabilities		562.8	553.4	565.3	553.9
		639.9	583.5	642.3	584.0
Accruals and deferred income					
		129.1	114.6	129.2	114.7
TOTAL LIABILITIES		39,513.5	37,350.0	39,487.2	37,309.1

Statement of source and application of funds

	Parent Company 2019	Parent Company 2018	Group 2019	Group 2018
1 Jan–31 Dec, € million				
Cash flow from operations				
Profit/loss on ordinary activities	13.4	14.7	8.3	18.5
Adjustments				
Changes in technical provisions	2,086.6	-174.8	2,086.6	-174.8
Impairments and revaluations on investments	71.9	1,075.5	62.5	1,055.7
Depreciation according to plan	11.1	11.2	67.0	78.9
Capital gain and loss	-1,880.5	-1,389.7	-1,878.9	-1,388.9
Cash flow before change in working capital	302.5	-463.1	345.5	-410.7
Change in working capital:				
Increase (-) / decrease (+) in non-interest-bearing short-term receivables	-724.4	-34.2	-719.6	-38.1
Increase (-) / decrease (+) in non-interest-bearing short-term debts	70.8	166.6	72.8	178.4
Cash flow from operations before taxes	-351.1	-330.7	-301.2	-270.4
Direct taxes paid	-6.7	-7.9	-6.7	-7.9
Cash flow from operations	-357.7	-338.6	-307.9	-278.3
Cash flow from investments				
Net investments and proceeds from asset sales	-180.1	-487.1	-230.3	-547.2
Investments and gains on intangible, tangible and other assets	-0.3	-0.2	-0.3	-0.2
Cash flow from investments	-180.4	-487.4	-230.6	-547.4
Cash flow from financing				
Interest paid on guarantee capital and other profit distribution	-0.7	-0.6	-0.7	-0.6
Cash flow from financing	-0.7	-0.6	-0.7	-0.6
Change in financial resources	-538.8	-826.5	-539.2	-826.3
Financial resources, 1 Jan	1,330.4	2,156.9	1,331.1	2,157.4
Financial resources, 31 Dec	791.6	1,330.4	791.9	1,331.1

NOTES TO THE FINANCIAL STATEMENTS

Accounting principles

These financial statements are prepared in accordance with sound accounting principles, and in compliance with legislation applicable to Varma and with the regulations and guidelines of the Financial Supervisory Authority. The financial statements have been drawn up so as to give a true and fair view of Varma's financial performance and financial position in accordance with the materiality principle.

Consolidated Financial Statements

In addition to the parent company, those companies in which the Group holds more than 50% of the votes (controlling interest) either directly or indirectly have been consolidated in the Consolidated Financial Statements as subsidiaries.

On the closing date, the parent company has 123 (126) real estate companies and 2 (2) other companies as subsidiaries. The companies belonging to the Group are listed in the notes to the financial statement.

The Consolidated Financial Statements are compiled as combinations of the income statement, balance sheets and notes. When the Consolidated Financial Statements are compiled, intra-group business transactions and cross-shareholdings are eliminated. However, Tieto Esy Ltd, in which Varma has a 14.4% shareholding but holds over 50% of the votes from all the shares, is consolidated using the equity method. Intra-group cross-shareholdings are eliminated using the acquisition method. The resulting consolidation difference is allocated to subsidiaries' asset items proportional to their fair values, and depreciated in accordance with the depreciation plans of these asset items.

Minority shareholders' share of the result for the financial year and of the Group's capital and reserves is entered as a minority interest.

Subsidiaries acquired during the year are consolidated from the moment of acquisition. Subsidiaries divested during the year are consolidated until the moment of divestment. Minority interest in the profit and loss and in capital and reserves are recognised as a separate item. Revaluations on Group companies' shares are shown in the consolidate balance sheet as a revaluation of real estate owned by a subsidiary.

Relevant associated companies in which the Group holds 20–50% of all the votes are included in the consolidated financial statements using the equity method. When an associated company draws up its financial statements using fair values, these values are used in the consolidation. Housing and real estate companies are not treated as associated companies. Their non-inclusion has a minimal effect on Group profit and capital and reserves, since the expenses arising from these companies are covered by the maintenance charges collected from their owners.

The Group owns 50% of the guarantee capital and 25% of the votes of Kaleva Mutual Insurance Company, which is not, however, included in the consolidated financial statement due to limitations concerning controlling interest and distribution of profits.

An amount corresponding to the Group companies' proportion of an associate's profit or loss as well as the change in capital and reserves is also shown in the consolidated financial statements.

Associated companies are listed in the Notes (12 and 13) to the financial statements.

Book value of investments

Investments in land and buildings are entered in the balance sheet at the lower of acquisition cost less depreciation or fair value. The values of real estate have been revaluated in the previous years. Revaluation of buildings entered as income is also depreciated according to plan. No revaluations of real estate book values were made in the financial year 2019.

Shares and participations are entered in the balance sheet at the lower of acquisition cost or fair value. Acquisition cost is calculated by class using the average price.

Money-market instruments are entered in the balance sheet at the lower of acquisition cost or fair value. Changes in value due to interest rate fluctuations are not entered. The difference between the nominal value and acquisition cost of the money-market instrument is allocated to interest income and its reduction over the maturity of the instrument. The counterpart entry for the allocations entered as an increase or decrease in the acquisition cost is shown in the notes to the balance sheet. The acquisition cost is the average price calculated for each instrument.

Loan receivables and other receivables are entered in the balance sheet at the lower of nominal value or probable value.

Value adjustments made to investments in previous financial years are entered in the income statement as value readjustments corresponding to the value appreciation.

Premium receivables and other receivables

Premium receivables and other receivables are valued at the lower of nominal value or probable value.

Derivative contracts

Derivative contracts for hedging purposes are valued together with the hedged item. If no change in value is entered in the income statement for the hedged balance sheet item, no entry is recorded in the income statement for the hedging contract, unless the negative value change exceeds the positive value change in the hedging contract.

Negative value adjustments of derivative financial instruments other than those created for the purposes of hedging are entered in the income statement as an expense. The profits and losses resulting from the termination or expiration of contracts are entered as income or expenses for the financial year.

Income and expenses from interest rate derivatives are entered under interest income.

Depreciation according to plan

The acquisition cost of buildings, including components in buildings, movable property and other expenses with long-term effects, are depreciated according to plan over their useful lives. Revaluation of buildings entered as income is also depreciated according to plan. Either the reducing-balance depreciation method or the straight-line depreciation method is applied to planned depreciation using the following estimated economic useful lives:

Residential, office and business premises, hotels	40–60 yrs
Industrial premises and warehouses	25–50 yrs
Components in buildings	10 yrs

The straight-line depreciation method is applied to planned depreciation of tangible and intangible assets using the following estimated economic useful lives:

Equipment	7–10 yrs
Computer hardware	3 yrs
Transport equipment	5 yrs
Intangible assets	5–10 yrs

Fair values of investments

The fair values of real estate and real estate shares are measured item by item as prescribed in the regulations of the Financial Supervisory Authority and based on the opinions of the company's own and external experts.

The last available buying rates or, if these are not available, closing prices at the balance sheet date are used as fair values for listed securities.

Investments in private equity funds are entered in the balance sheet at fair value estimated by the management company or, if this is not available, at acquisition cost. Investments in mutual funds are entered at the last available value of the share calculated by the management company.

The fair value of other shares and participations is the purchase price or the net realisable value or the net asset value.

The fair value of money-market instruments is primarily based on market value. If the market value is not available and the value of the investment cannot be reliably determined, the fair value is determined by using estimates by external parties or commonly approved calculation models, or the fair value is the purchase price.

Receivables are entered at the lower of nominal value or probable value.

Fair values of derivative contracts, and related liabilities and guarantees

The method for determining the fair values of derivative contracts, the liabilities and the collateral received and given to cover the clearing of derivative transactions are presented in the notes to the financial statement under Contingent liabilities and liabilities not included in the balance sheet.

Loaned securities

Loaned securities are included in the balance sheet. They are presented in the notes to the balance sheet under Guarantees and liabilities, Loaned securities (Note 31).

Profit for the year, and capital and reserves

In an earnings-related pension insurance company, the parent company's profit after taxes in the income statement is determined by calculation bases confirmed

in advance by the Finnish Ministry of Social Affairs and Health. The division of the parent company's capital and reserves between the insurance portfolio and the owners of the guarantee capital is presented in the notes to the financial statements.

Technical provisions

The regulations and guidelines of the Ministry of Social Affairs and Health and the Financial Supervisory Authority are adhered to when calculating the technical provisions. Technical provisions comprise a provision for unearned premiums and a provision for claims outstanding.

The provision for unearned premiums is composed of future pension liabilities, a provision for current bonuses and an equity-linked provision for current and future bonuses. The provision for current bonuses includes amounts reserved for client bonuses to be granted to policyholders. The amount of the equity-linked provision for current and future bonuses depends on earnings-related pension companies' average return on equity investments.

The provision for claims outstanding is composed of the liability for current pensions.

During the financial year 2019, Varma received one portfolio transfer from a pension fund and transferred one employer-specific insurance portfolio to a pension fund.

Solvency capital

Solvency capital is calculated as the difference between the assets and debts valued at fair value. It comprises capital and reserves, accumulated appropriations, valuation differences, the provision for future bonuses, and liabilities not included in the balance sheet. Intangible assets included in the balance sheet and lease liabilities not included in the

balance sheet are deducted from solvency capital.

The minimum limit of the solvency capital is one third of the solvency limit. The solvency limit is determined using a risk-theory-based method taking into account the allocation of investments into different asset classes and their mutual correlations as required in legislation. When calculating the limit, investments are classified according to their risk.

The solvency position is the ratio of the solvency capital to the solvency limit. The solvency ratio is the ratio of the solvency capital to the technical provisions, which does not include the provision for future bonuses.

Solvency capital and the solvency limit are presented in the notes to the financial statements.

Taxes

Taxes for the financial year and previous financial years are recognised in the income statement on an accrual basis.

Deferred tax liabilities or assets are not calculated for temporary differences between income statement items and income and expenses approved in taxation, such as confirmed losses or tax credits, because the company's net result is determined by calculation bases confirmed in advance by the Finnish Ministry of Social Affairs and Health. Nor is the deferred tax liability or asset calculated in the mutual real estate companies owned by the Group, because they are not significant for the companies in question or the Group.

Foreign-currency-denominated items

Foreign-currency-denominated items are entered at the lower of the rate on the date of transaction or the rate at the balance sheet date. When determining the investments' book value, the change in both the investment's market price and the exchange rate is taken into account as a whole. Currency conversion differences are entered as adjustments to income and expenses. Currency conversion differences for cash at bank and in hand and deposits and items that cannot be entered as adjustments to income and expenses are entered under investment income and charges. When calculating fair values, the European Central Bank's average rates quoted on the balance sheet date are used.

Operating expenses and depreciation by function

Operating expenses and the depreciation of furniture and fixtures and expenses with long-term effects are included in the items of the income statement by function. In the income statement, the operating expenses from operations related to compensations and operations for the maintenance of work ability are included in claims paid, and expenses related to investment management are included in investment charges. The expenses of insurance policy acquisition and management and administration are presented as net operating expenses. Statutory fees and payments are included in the administrative expenses. Planned depreciation on buildings is presented as investment expenses.

Pension plans and remuneration statement

Statutory pension coverage for personnel is arranged through TyEL insurance and supplemented by voluntary pension insurance. The pension

plans of the President and CEO are explained in the notes to the financial statements (Note 7). A salary and remuneration statement in accordance with the Financial Supervisory Authority's recommendation has been published on Varma's website and in the Annual and Sustainability Report.

Balance sheet and income statement at fair values

In addition to the information required by the regulations, the parent company's income statement and balance sheet at fair values are presented in the notes to the financial statement. The purpose of this is to improve the transparency of the annual account information of an earnings-related pension insurance company.

The financial statements of an earnings-related pension company are prepared in accordance with sound accounting principles, valid laws and the regulations and guidelines of the Financial Supervisory Authority.

The statutory earnings-related pension scheme is partially fund-based. The technical provisions appearing in the balance sheet of an earnings-related pension insurance company amount to about a quarter of the capital value of the pensions accumulated by the closing date. Furthermore, statutory pension insurance has a guarantee scheme, according to which the earnings-related pension insurance scheme is jointly responsible for securing the benefits of the insured, should a pension institution become insolvent.

The operating expenses of the company are listed under a number of entries in the income statement and key figures. The effect of fair values on the company's investments and their results are presented in the notes to the financial statements under balance sheet and income statement at fair values.

The total result presented in Performance analysis, consisting of investment surplus at fair value, loading profit, technical underwriting result and other result, corresponds to the total result in the note income statement at fair value. In the note, the net investment income is given at fair value. The total result at fair value is also influenced by premiums written, claims paid, change in technical provisions, total operating expenses, other result and taxes. The total result presented in the income statement drawn up at fair values substantially deviates from the result for the financial year in the income statement, drawn up in accordance with calculation bases confirmed in advance by the Finnish Ministry of Social Affairs and Health.

In Note 32, i.e. Varma's balance sheet and income statement at fair values, a balance sheet presenting asset items at fair value is given. In the note, valuation differences refer to the difference between the fair values and book values of investments.

The main components of the solvency capital shown separately and measuring solvency in the balance sheet are the capital and reserves, provision for future bonuses and valuation differences of investments. The provision for current bonuses reserved for the payment of client bonuses and equity-linked provision for current and future bonuses are shown on their own lines. Investments and their net return are shown at fair value. The interest credited on technical provisions is included under change in technical provision.

Investments classified according to risk

The notes to the financial statements report investments and their returns classified according to risk. The stipulations of the Financial Supervisory Authority concerning the calcula-

tion of the financial key figures are also used in the calculation of the return percentages. The method is described in the section Key figures and analyses.

Key figures and analyses

The key figures and analyses describing financial development are calculated and presented in accordance with the stipulations of the Financial Supervisory Authority concerning notes to the financial statements.

The key figures and analyses for investment operations and solvency are presented at fair values.

Net investment income at fair values over invested capital has been calculated by type of investment and for the total amount of investments with reference to daily or monthly time-weighted cash or output flow.

The return for the period has been calculated using a modified Dietz formula (time and money weighted formula) so that invested capital has been calculated by adding to the opening market value the cash flow for the period (cash flow/output flow = purchases – sales – income + expenses) weighted by the relative share of the length of the period that is left from the date of the event to the end of the period.

Non-financial information

The Report of the Board of Directors includes non-financial information, and a more detailed report in accordance with the GRI guidelines is published on the company's website together with the Annual and Sustainability Report.

Changes in accounting principles

As of 2019, funds' profit distributions are shown as dividend income under 'Breakdown of net investment return'. The comparison figures have been amended correspondingly.

GROUP COMPANIES 31 DEC 2019

The following companies are included as new subsidiaries in Varma's consolidated financial statements:

Asunto Oy Vantaan Neilikkatie 4 A-F

Asunto Oy Vantaan Neilikkatie 4 G-H

Asunto Oy Vantaan Unikkotie 8

The following 120 companies are included as subsidiaries in Varma's consolidated financial statements:

As Oy Kuokkalan Tahkonkartano

As Oy Lahden Vilhon Vaakuna

As. Oy Espoon Amiraali

As. Oy Jyväskylän Spinetti

As. Oy Näkinkuja 4

As. Oy Vantaan Tellervo

Asunto Oy Espoon Keijumäki

Asunto Oy Espoon Kilonlemmikki

Asunto Oy Espoon Niittysillankulma 2 EF

Asunto Oy Espoon Pyölinpuisto

Asunto Oy Haukikoto

Asunto Oy Helsingin Arabiankatu 4

Asunto Oy Helsingin Arabiankatu 8

Asunto Oy Helsingin Haukilahdenkuja 13

Asunto Oy Helsingin Hiihtäjätien Huippu

Asunto Oy Helsingin Hiihtäjätien Kaarre

Asunto Oy Helsingin Hiihtäjätien Laakso

Asunto Oy Helsingin Kimmontie 3

Asunto Oy Helsingin Klaneettitie

Asunto Oy Helsingin Kruunuvuorenkatu 2

Asunto Oy Helsingin Näyttelijäntie 22

Asunto Oy Helsingin Päijänteentie 4-6

Asunto Oy Helsingin Roihuvuorentie 20

Asunto Oy Helsingin Roihuvuorentie 30

Asunto Oy Helsingin Tyynenmerenkatu 5

Asunto Oy Jyväskylän Kiramo 4

Asunto Oy Järvenpään Bjarnenkuja 6

Asunto Oy Kokkovouri

Asunto Oy Korkeavuorenkatu 2 a

Asunto Oy Lahden Kulmakatu 10

Asunto Oy Lahden Kulmakatu 12

Asunto Oy Lahden Massinhovi

Asunto Oy Lahden Massinpoiju

Asunto Oy Oulun Lehmuskuja

Asunto Oy Siltavoudintie 1

Asunto Oy Tampereen Nahkakuja 9

Asunto Oy Tampereen Nahkakuja 13

Asunto Oy Tampereen Näsijärvenkatu 3

Asunto Oy Tampereen Palatsinraitti 1

Asunto Oy Tampereen Puuvillatehtaankatu 6

Asunto Oy Tampereen Satakunnankatu 22

Asunto Oy Tampereen Vihilahdenkontu

Asunto Oy Tervahovinkatu 12

Asunto Oy Turun Itäinen Rantakatu 64

Asunto Oy Turun Itäinen Rantakatu 70

Asunto Oy Turun Laivurinkatu 2

Asunto Oy Turun Vilhonkatu 15

Asunto Oy Vantaan Käräjäkuja 1

Asunto Oy Vantaan Topaasikuja 9

Asunto Oy Vantaan Vernissakatu 5

Kiint. Oy Helsingin Tapulikaupungintie 13

Kiint. Oy Jyväskylän maalaiskunnan Kotikeskus

Kiinteistö Oy Arabian Parkki

Kiinteistö Oy Atomitalo

Kiinteistö Oy Avia Prima

Kiinteistö Oy Eerikinkatu 24

Kiinteistö Oy Espoon Komentajan-Varma

Kiinteistö Oy Espoon Riihitonttu

Kiinteistö Oy Fredrikinkatu 42

Kiinteistö Oy Gigahermia

Kiinteistö Oy Helsingin Hiilipiha

Kiinteistö Oy Helsingin Hiiliranta

Kiinteistö Oy Helsingin Itämerenkatu 11-13

Kiinteistö Oy Helsingin Lönnrotinkatu 18

Kiinteistö Oy Helsingin Malminkatu 28

Kiinteistö Oy Helsingin Ratakartankatu 5

Kiinteistö Oy Helsingin Suolakivenkatu 1

Kiinteistö Oy Helsingin Valimopolku 4

Kiinteistö Oy Helsingin Valimotie 9-11

Kiinteistö Oy Helsingin Valimotie 16

Kiinteistö Oy Helsingin Yrjönkatu 17

Kiinteistö Oy Helsinki Niittylänpolku 10

Kiinteistö Oy Hotelli Levihovi

Kiinteistö Oy Hotelli Torni

Kiinteistö Oy Hyvinkään Hämeenkatu 9

Kiinteistö Oy Hämeentie 135

Kiinteistö Oy Ilmailunkatu 7

Kiinteistö Oy Itälahdenkatu 15-17

Kiinteistö Oy Itälahdenkatu 22 A

Kiinteistö Oy John Stenberginranta 2

Kiinteistö Oy Juhana Herttua 3

Kiinteistö Oy Jyväskylän Kylmälahdentie 6

GROUP COMPANIES 31 DEC 2019

Kiinteistö Oy Jyväskylän Mattilanniemi

Kiinteistö Oy Jyväskylän Saarijärventie 50-52

Kiinteistö Oy Jyväskylän Sorastajantie 1

Kiinteistö Oy Keskustahotelli

Kiinteistö Oy Koroppa

Kiinteistö Oy Kotkan Jumalniementie 8

Kiinteistö Oy Kuntotalo

Kiinteistö Oy Lappeenrannan Kodinkeskus

Kiinteistö Oy Lappeenrannan Patria

Kiinteistö Oy Lönnrotinkatu 12

Kiinteistö Oy Lönnrotinkatu 13

Kiinteistö Oy Mannerheimintien Pysäköintilaitos

Kiinteistö Oy Menotie 1

Kiinteistö Oy Metsäpöjankuja 1

Kiinteistö Oy Nokian Nuijamiestentie 5

Kiinteistö Oy Ornant

Kiinteistö Oy Partolan Kauppajätti

Kiinteistö Oy Pirkkalan Myllyhaantie

Kiinteistö Oy Porin Itsenäisyydenkatu 5

Kiinteistö Oy Rajalla

Kiinteistö Oy Rajasampaanranta 2

Kiinteistö Oy Salmisaaren Liikuntakeskus

Kiinteistö Oy Seinäjoen Puskantie 13

Kiinteistö Oy Sompasaaren Tukoeka

Kiinteistö Oy Tampereen Kalevanpaasi

Kiinteistö Oy Tampereen Harjuntausta 7

Kiinteistö Oy Tampereen Sarankulmankatu 20 A

Kiinteistö Oy Tavastkulla

Kiinteistö Oy Vaasan Sampotalo

Kiinteistö Oy Varmantalo

Kiinteistöosakeyhtiö Varma

Old Mill Oy

Osakevarma Oy

Pitäjänmäen Kiinteistöt Oy

P-Turkuparkki Oy

Saimaan Kylpyläkiinteistöt Oy

Tampereen Kiinteistö Invest Oy

Tieto Esy Oy

The following 9 real estate companies exited the Group during the year under review:

Asunto Oy Neilikkatie

Asunto Oy Vantaan Unikkotie 6

Kiinteistö Oy Elocinkulma 3

Kiinteistö Oy Itäinen Rantakatu 60

Kiinteistö Oy Savonkatu 21

Kiinteistö Oy Vallilan toimisto

Kiinteistö Oy Vantaan Tasetie 8

Oy Ässäkeskus Ab

Ässäparkki Oy

One new associate was included in Varma's consolidated financial statements:

Vantaan Valo GP Oy

In addition, the Group comprises the following 16 associates:

Aros Bostad III AB

CMCV Kungens Kurva Holdco AB

Kiinteistö Oy Elocinkulma 1

Kiinteistö Oy Pyyntikin Parkki

Kiinteistö Oy Selloparkki

Kiinteistö Oy Suursuon Ostoskeskus

Leineläntien pysäköintikiinteistö Oy

NV Kiinteistösijoitus Oy

Näkin Pihapuistikko II Oy

Oulun Lehmusparkki Oy

Ruohoparkki Oy

Salmiparkki Oy

Serena Properties AB

Spektri Kiinteistöt GP Oy

Vaasan Toripysäköinti Oy

VVT Kiinteistösijoitus Oy

One associate exited the Group during the year under review:

Kiinteistö Oy Liikejalava

NOTES TO THE INCOME STATEMENT

1. Premiums written

1 Jan–31 Dec, € million	Parent Company 2019	Parent Company 2018	Group 2019	Group 2018
Direct business				
Basic insurance under TyEL				
Employer's share	3,609.4	3,581.4	3,609.4	3,581.4
Employee's share	1,491.5	1,355.8	1,491.5	1,355.8
	5,100.8	4,937.2	5,100.8	4,937.2
Supplementary pension insurance under TEL	0.1	0.0	0.1	0.0
Insurance under minimum YEL cover	186.7	183.4	186.7	183.4
	5,287.7	5,120.6	5,287.7	5,120.6
Transition payment to the State Pension Fund	-2.0	-2.5	-2.0	-2.5
Reinsurance	0.0	0.0	0.0	0.0
Premiums written before reinsurance	5,285.6	5,118.0	5,285.6	5,118.0
Reinsurance share	0.0	0.0	0.0	0.0
Premiums written ¹	5,285.6	5,118.0	5,285.6	5,118.0
Credit loss on premium receivables				
TyEL	10.2	13.5	10.2	13.5
YEL	2.2	2.3	2.2	2.3
	12.4	15.8	12.4	15.8

¹ Less credit loss

2. Claims paid

1 Jan–31 Dec, € million	Parent Company 2019	Parent Company 2018	Group 2019	Group 2018
Direct business				
Paid to pensioners				
Basic insurance under TyEL	5,476.0	5,293.8	5,476.0	5,293.8
Supplementary pension insurance under TEL	87.9	89.5	87.9	89.5
Insurance under minimum YEL cover	291.5	284.1	291.5	284.1
Supplementary pension insurance under YEL	0.8	0.8	0.8	0.8
	5,856.1	5,668.2	5,856.1	5,668.2
Compensation paid/received as regards clearing of PAYG pensions ¹				
TyEL pensions	19.8	-24.1	19.8	-24.1
YEL pensions	-48.7	-49.8	-48.7	-49.8
Share of the Unemployment Insurance Fund contribution and cost distribution of pension components accrued on no-pay periods	-152.0	-145.5	-152.0	-145.5
YEL state share	-51.1	-43.8	-51.1	-43.8
VEKL state compensation	-1.2	-0.9	-1.2	-0.9
	-233.1	-264.2	-233.1	-264.2
Reinsurance	0.0	0.1	0.0	0.1
	5,623.0	5,404.1	5,623.0	5,404.1
Claims handling expenses	27.1	28.1	27.1	28.1
Administrative costs for disability risk management ²	6.4	6.3	6.4	6.3
Claims paid before reinsurance	5,656.5	5,438.4	5,656.5	5,438.4
Reinsurance share	0.0	0.0	0.0	0.0
Total claims paid	5,656.5	5,438.4	5,656.5	5,438.4

¹ Paid/received cost-division compensation does not include the share of the Unemployment Insurance Fund contribution, the cost division of pension components accrued on unsalaried periods, the YEL state share, or VEKL compensation.

² Between 2000 and 2019 the administrative cost components of Varma's premium income totalled EUR 102.6 million, 100 per cent of which were used for well-being-at-work projects as part of claims incurred. In 2019, the administrative cost components totalled EUR 6.4 million, and EUR 6.4 million were transferred to claims incurred.

3. Breakdown of net investment return

1 Jan–31 Dec, € million	Parent Company 2019	Parent Company 2018	Group 2019	Group 2018
Investment return				
Returns on investments in Group companies				
Dividend	0.4	0.2		
	0.4	0.2		
Returns on investments in participating interests				
Dividend	0.0	0.0		
	0.0	0.0		
Returns on investments in real estate				
Interest				
Group companies	25.8	28.5		
Other than Group companies			0.5	0.5
Other returns				
Other than Group companies	197.8	196.1	214.0	215.1
	223.6	224.6	214.5	215.6
Returns on other investments				
Dividend	1,064.8	824.7	1,065.0	824.9
Interest	407.5	521.2	407.5	521.2
Other returns	708.4	1,255.5	708.4	1,255.5
	2,180.7	2,601.4	2,180.9	2,601.6
	2,404.6	2,826.2	2,395.3	2,817.2
Reversed impairment	446.7	219.3	443.4	203.6
Sales proceeds	3,056.0	2,674.8	3,054.5	2,673.9
Total	5,907.4	5,720.3	5,893.2	5,694.7
Investment expenses				
On real estate	-132.3	-144.2	-78.4	-83.1
On other investments	-1,441.1	-2,102.9	-1,441.1	-2,102.9
Interest and other expenses on debt capital	-99.2	-321.5	-100.9	-321.3
	-1,672.7	-2,568.6	-1,620.4	-2,507.3
Impairment and depreciation				
Impairment	-518.6	-1,294.8	-505.8	-1,259.2
Planned depreciation on buildings	-10.5	-10.2	-66.4	-77.9
	-529.1	-1,305.1	-572.3	-1,337.1
Sales losses	-1,175.6	-1,597.3	-1,175.6	-1,597.3
Total	-3,377.3	-5,471.0	-3,368.2	-5,441.7
Net investment return in the income statement	2,530.1	249.3	2,525.0	253.0
Net investment return in the income statement includes other foreign exchange gains and losses of investment operations	-731.6	-799.3	-731.6	-799.3

4. Operating expenses in the income statement

1 Jan–31 Dec, € million	Parent Company 2019	Parent Company 2018	Group 2019	Group 2018
Insurance policy acquisition costs				
Direct business commissions	1.9	1.9	1.9	1.9
Other insurance policy acquisition costs	7.0	7.0	7.0	7.0
	8.8	8.9	8.8	8.9
Portfolio administration expenses	32.9	30.4	32.9	30.4
Administrative expenses				
Statutory charges				
Finnish Centre for Pensions' share	9.2	8.9	9.2	8.9
Judicial administration fee	1.0	1.2	1.0	1.2
Financial Supervisory Authority supervision fee	0.8	0.8	0.8	0.8
	11.0	10.9	11.0	10.9
Other administrative expenses	17.3	18.0	17.3	18.0
	70.0	68.2	70.0	68.2

5. Overall operating expenses by function

1 Jan–31 Dec, € million	Parent Company 2019	Parent Company 2018	Group 2019	Group 2018
Claims paid				
Claims handling expenses	27.1	28.1	27.1	28.1
Disability risk management expenses	6.4	6.3	6.4	6.3
	33.5	34.4	33.5	34.4
Operating expenses	70.0	68.2	70.0	68.2
Investment management charges				
Expenses on real estate	1.9	3.7	1.9	3.7
Expenses on other investments	18.7	18.6	18.7	18.6
	20.6	22.3	20.6	22.3
Total operating expenses	124.0	124.8	124.0	124.8

6. Personnel expenses

	Parent Company 2019	Parent Company 2018	Group 2019	Group 2018
1 Jan–31 Dec, € million				
Salaries and remunerations	37.6	40.1	40.1	42.8
Pension expenses	6.2	6.9	6.7	7.3
Other personnel-related expenses	1.6	1.3	1.7	1.4
Total	45.5	48.3	48.5	51.4

7. Management salaries and remunerations

	Parent Company 2019	Parent Company 2018	Group 2019	Group 2018
1 Jan–31 Dec, € million				
President and CEO	0.8	0.9	0.8	0.9
Members and deputy members of the Board of Directors	0.5	0.5	0.5	0.5
Members and deputy members of the Supervisory Board	0.2	0.2	0.2	0.2
Total	1.4	1.5	1.4	1.5
Average number of personnel during the financial year	537	532	575	575

President & CEO Risto Murto was paid EUR 816,812 in salary and fringe benefits. President & CEO Murto's retirement age will be 65 years.

8. Auditors' fees

	Parent Company 2019	Parent Company 2018	Group 2019	Group 2018
1 Jan–31 Dec, € million				
	Ernst & Young Oy	Ernst & Young Oy	Ernst & Young Oy	Ernst & Young Oy
Audit fees	0.2	0.2	0.2	0.2
Taxation advice	0.0	0.0	0.0	0.0
Other fees	0.0	0.0	0.0	0.0
	Other audit firms	Other audit firms	Other audit firms	Other audit firms
Taxation advice	0.2	0.1	0.2	0.1
Other fees	0.1	0.1	0.1	0.1

The 2018 comparison figure has been amended as regards the audit fees.

9. Income taxes

Deferred tax liabilities or assets based on accumulated appropriations or other temporary differences between book value and taxable values have not been entered in the balance sheet, because such deferred tax liabilities or assets are unlikely to be realised in the financial statements of a company engaged in the statutory pension insurance business or of its Group.

NOTES TO THE BALANCE SHEET

10. Investments at fair value and valuation differences, Parent Company

31 Dec, € million	Remaining acquisition cost 2019	Book value 2019	Fair value 2019	Remaining acquisition cost 2018	Book value 2018	Fair value 2018
Real estate investments						
Real estate	313.5	323.6	442.4	302.7	312.8	429.9
Real estate shares in Group companies	1,100.0	1,100.0	1,610.9	1,211.2	1,211.2	1,724.2
Other real estate shares	6.9	6.9	7.1	9.3	9.3	9.5
Loans to Group companies	443.2	443.2	443.2	530.5	530.5	530.5
Loans to real estate companies	304.0	304.0	304.0	220.9	220.9	220.9
Investments in Group companies						
Shares and participations	4.3	4.3	4.3	4.3	4.3	4.3
Investments in participating interests						
Shares and participations	18.5	18.5	42.4	18.5	18.5	33.8
Other investments						
Shares and participations	26,362.4	26,362.4	36,056.9	23,963.4	23,963.4	31,244.6
Money-market instruments	6,221.5	6,221.5	6,524.8	6,947.8	6,947.8	6,953.6
Loans guaranteed by mortgages	260.3	260.3	260.3	288.6	288.6	288.6
Other loan receivables	1,999.9	1,999.9	2,002.8	1,559.1	1,559.1	1,560.6
	37,034.4	37,044.5	47,699.1	35,056.2	35,066.3	43,000.4
The remaining acquisition cost of money-market instruments includes:						
The difference between the nominal value and acquisition cost, released (+) or charged (-) to interest income	-40.4			-32.8		
Book value includes						
Revaluations entered as income		10.1			10.1	
Valuation difference (difference between fair value and book value)			10,654.6			7,934.1
Non-hedging derivatives						
		-135.6	-68.6		-111.2	-40.9
Valuation difference (difference between fair value and book value)			67.0			70.3
Valuation difference total			10,721.5			8,004.4

11. Investments at fair value and valuation differences, Group

31 Dec, € million	Remaining acquisition cost 2019	Book value 2019	Fair value 2019	Remaining acquisition cost 2018	Book value 2018	Fair value 2018
Real estate investments						
Real estate	2,087.3	2,097.4	2,789.2	2,191.3	2,201.4	2,895.9
Other real estate shares	6.9	6.9	7.1	9.3	9.3	9.5
Investments in Group companies						
Shares and participations	0.5	0.5	0.9	0.6	0.6	0.9
Investments in participating interests						
Shares and participations	45.0	45.0	42.4	27.5	27.5	33.8
Other investments						
Shares and participations	26,377.0	26,377.0	36,071.5	23,976.3	23,976.3	31,257.5
Money-market instruments	6,221.5	6,221.5	6,524.8	6,947.8	6,947.8	6,953.6
Loans guaranteed by mortgages	260.3	260.3	260.3	288.6	288.6	288.6
Other loan receivables	1,999.9	1,999.9	2,002.8	1,559.1	1,559.1	1,560.6
	36,998.4	37,008.5	47,699.1	35,000.4	35,010.5	43,000.4
The remaining acquisition cost of money-market instruments includes:						
The difference between the nominal value and acquisition cost, released (+) or charged (-) to interest income	-40.4			-32.8		
Book value includes						
Revaluations entered as income		10.1			10.1	
Valuation difference (difference between fair value and book value)			10,690.6			7,980.8
Non-hedging derivatives						
Valuation difference (difference between fair value and book value)		-135.6	-68.6		-111.2	-40.9
			67.0			70.3

12. Investments in Group companies and participating interests, Parent Company

31 Dec 2019, € million

Shares and participations in Group companies	
Acquisition cost, 1 Jan	4.3
Acquisition cost, 31 Dec	4.3
Shares and participations in participating interests	
Acquisition cost, 1 Jan	18.5
Increase	0.0
Decrease	0.0
Acquisition cost, 31 Dec	18.5

Shares and participations in Group companies

31 Dec 2019	Domicile	Shares	Votes	Book value € million
Tieto Esy Ltd	Helsinki	14.4%	50.1%	0.9
Osakevarma Oy	Helsinki	100.0%	100.0%	3.3
				4.3
Housing associations and real estate companies				1,100.0

Shares and participations in participating interests

31 Dec 2019	Domicile	Shares	Votes	Book value € million
Aros Bostad III AB	Tukholma	35.1%	35.1%	0.0
CMCV Kungenskurva HoldCo AB	Tukholma	45.0%	45.0%	10.0
NV Kiinteistösjointus Oy	Helsinki	45.0%	45.0%	0.0
Serena Properties AB	Tukholma	43.0%	43.0%	8.5
Spektri Kiinteistöt GP Oy	Helsinki	24.7%	24.7%	0.0
Vantaan Valo GP Oy	Helsinki	50.0%	50.0%	0.0
VVT Kiinteistösjointus Oy	Helsinki	45.0%	45.0%	0.0
				18.5
Housing associations and real estate companies				5.1

13. Investments in Group companies and participating interests, Group

31 Dec 2019, € million

Shares and participations in Group companies	
Acquisition cost, 1 Jan	0.6
Increase	0.0
Decrease	-0.1
Acquisition cost, 31 Dec	0.5
Shares and participations in participating interests	
Acquisition cost, 1 Jan	27.5
Increase	17.6
Decrease	0.0
Acquisition cost, 31 Dec	45.0

Shares and participations in Group companies

31 Dec 2019	Domicile	Shares	Votes	Book value € million
Tieto Esy Ltd	Helsinki	14.4%	50.1%	0.5
				0.5

Shares and participations in participating interests

31 Dec 2019	Domicile	Shares	Votes	Book value € million
Aros Bostad III AB	Stockholm	35.1%	35.1%	12.2
CMCV Kungenskurva HoldCo AB	Stockholm	45.0%	45.0%	11.1
NV Kiinteistösjointus Oy	Helsinki	45.0%	45.0%	0.0
Serena Properties AB	Stockholm	43.0%	43.0%	21.7
Spektri Kiinteistöt GP Oy	Helsinki	24.7%	24.7%	0.0
Vantaan Valo GP Oy	Helsinki	50.0%	50.0%	0.0
VVT Kiinteistösjointus Oy	Helsinki	45.0%	45.0%	0.0
				45.0
Housing associations and real estate companies				10.6

14. Changes in investments in real estate

31 Dec 2019, € million	Parent Company Real Estate and real estate shares	Parent Company Loans to Group companies	Group Real Estate and real estate shares
Acquisition cost, 1 Jan	2,007.8	751.4	3,403.9
Increase	53.0	88.6	178.4
Decrease	-166.4	-92.8	-363.0
Acquisition cost, 31 Dec	1,894.5	747.2	3,219.3
Accumulated depreciation, 1 Jan	-189.2		-943.9
Accumulated depreciation on deductions and transfers	1.3		118.2
Depreciation for the financial year	-10.5		-50.9
Accumulated depreciation, 31 Dec	-198.4		-876.5
Impairments, 1 Jan	-295.4		-259.5
Impairments on deductions and transfers	29.9		39.9
Impairments for the financial year	-15.5		-30.6
Reversed impairment	5.2		1.7
Impairments, 31 Dec	-275.7		-248.6
Revaluations, 1 Jan	10.1		10.1
Revaluations on deductions and transfers	0.0		0.0
Revaluations, 31 Dec	10.1		10.1
Book value, 31 Dec	1,430.4	747.2	2,104.3

15. Real estate investments in own use

31 Dec 2019, € million	Parent Company	Group
Remaining acquisition cost	62.9	62.9
Book value	62.9	62.9
Fair value	74.8	74.8

16. Parent Company's other investments, shares and participations

31 Dec 2019	Shares %	Book value € million	Market value € million
Listed equities			
Finland			
Ahlstrom-Munksjö Oyj	1.8	20.5	29.9
Aktia Bank Plc	1.7	6.7	11.0
Alma Media Corporation	6.5	23.0	42.2
Altia Plc	4.3	11.6	12.7
Aspo Plc	4.6	6.0	11.0
Atria Plc	1.9	5.2	5.2
Bitium Corporation	3.8	8.3	8.8
CapMan Plc	2.4	8.4	8.4
Cargotec Corporation	1.8	34.7	34.7
Caverion Corporation	8.0	60.0	80.1
Componenta Corporation	4.4	1.1	1.1
Consti Group Plc	2.2	1.1	1.1
Cramo Plc	0.4	1.2	2.1
Detection Technology Plc.	3.6	2.7	13.1
Digia Plc	4.6	4.8	5.0
DNA Plc	0.2	2.9	6.1
Elisa Corporation	3.1	65.6	255.0
Etteplan Oyj	3.9	3.3	10.0
Finnair Plc	2.5	19.2	19.2
Fiskars Corporation	3.0	18.5	27.8
Fortum Corporation	1.0	168.6	196.3
F-Secure Corporation	2.2	7.5	10.5
Glaston Corporation	7.5	7.9	7.9
Gofore Plc	3.7	3.3	3.8
HKScan Corporation	4.9	10.7	13.4
Honkarakenne Oyj	3.6	0.6	0.9
Huhtamaki Oyj	3.0	106.1	135.6
Kemira Oyj	3.4	68.2	70.9
Kesko Corporation	1.6	43.2	102.8
Kesla Oyj	4.4	0.7	0.7
Kojamo plc	10.9	29.3	435.7
Konecranes Plc	2.7	53.4	58.0
KONE Corporation	1.0	184.8	304.5
Lassila & Tikanoja Plc	1.6	7.9	9.9
Marimekko Corporation	4.7	3.4	13.8

31 Dec 2019	Shares %	Book value € million	Market value € million
Metso Corporation	1.9	87.2	100.4
Metsä Board Corporation	4.9	40.3	103.8
Neste Corporation	1.6	222.1	377.3
Next Games Corporation	2.0	0.5	0.5
Nixu Corporation	3.5	1.2	2.7
NoHo Partners Plc	1.4	1.2	2.8
Nokian Tyres Plc	0.8	19.0	29.8
Nokia Corporation	0.9	163.1	163.1
Nordea Bank Abp	1.5	438.4	438.4
Olvi Plc	4.0	17.6	34.1
Oma Savings Bank Plc	1.8	3.7	4.6
Oriola Corporation	4.2	12.9	15.4
Orion Corporation	1.4	50.6	80.3
Outokumpu Oyj	3.0	34.7	34.7
Outotec Oyj	6.7	60.8	70.4
Ponsse Plc	1.4	1.6	12.1
Ot Group Plc	4.7	0.7	23.2
Raisio Plc	2.2	12.1	12.1
Raute Plc	1.2	0.6	1.3
Robit Plc	9.7	6.0	6.0
Rovio Entertainment Corporation	0.5	1.7	1.7
Sampo Plc	4.0	174.9	866.6
Sanoma Corporatiion	0.1	0.7	1.9
Siili Solutions Plc	3.6	1.9	2.3
Solteq Plc	6.5	1.8	1.8
SRV Group Plc	1.2	1.0	1.0
SSH Communications Security Corporation	1.9	0.8	0.8
Stockmann Plc	9.8	14.7	14.7
Stora Enso Oyj	1.2	110.0	130.2
Suominen Corporation	7.7	10.1	10.4
Teleste Corporation	2.7	2.8	2.8
Terveystalo Plc	17.3	186.6	247.2
TietoEVRY Corporation	0.2	4.5	5.0
Tikkurila Oyj	5.7	35.7	35.7
Tokmanni Group Corporation	5.4	22.3	39.6
UPM-Kymmene Corporation	1.9	269.7	311.7
Uponor Corporation	5.3	37.4	45.0

31 Dec 2019	Shares %	Book value € million	Market value € million
Valmet Corporation	1.8	22.7	57.9
Verkkokauppa.com Oyj	4.6	7.3	7.3
Viafin Service Oyj	3.3	0.8	1.0
Vincit Group Plc	5.5	3.3	3.3
Wulff Group Plc	6.5	0.8	0.8
Wärtsilä Corporation	5.4	151.1	313.5
YIT Corporation	7.6	95.0	95.0
Other		0.6	5.1
Finnish equities, total		3,332.4	5,664.1
Other countries			
Australia			
Coca-Cola Amatil Ltd	0.0	1.7	1.7
GPT Group	0.1	3.3	3.5
Mirvac Group	0.1	2.9	3.9
Telstra Corp Ltd	0.0	2.7	2.7
Belgium			
UCB SA	0.0	3.5	3.5
Canada			
Bank of Montreal	0.0	3.6	4.1
Bank of Nova Scotia	0.0	1.0	1.0
BCE Inc	0.0	4.0	4.1
Royal Bank of Canada	0.0	2.8	3.5
Shopify Inc	0.0	5.3	6.4
TELUS Corporation	0.0	6.6	7.7
Toronto-Dominion Bank/The	0.0	1.2	1.5
Denmark			
DSV A/S	0.0	4.0	4.1
Genmab A/S	0.0	4.0	4.0
Novo Nordisk A/S	0.0	7.8	7.8
France			
Alstom SA	0.1	8.0	8.4
Bouygues SA	0.0	3.6	4.6
Carmila SA	0.5	13.4	13.4
Covivio SA	0.1	9.8	12.0
Elis SA	0.3	9.4	11.1
Europcar Mobility Group	1.1	7.8	7.8

31 Dec 2019	Shares %	Book value € million	Market value € million
Gecina SA	0.0	3.7	4.3
ICADE SA	0.1	5.3	7.4
Ingenico Group SA	0.1	6.0	6.0
Klepierre SA	0.1	7.1	7.1
Lagardere SCA	0.4	9.7	9.7
Orange SA	0.0	6.6	6.6
Orpea SA	0.3	17.5	24.5
Sanofi SA	0.0	24.1	28.2
Schneider Electric SA	0.0	6.8	10.0
Suez Environnement Co	0.1	6.8	6.8
Teleperformance SA	0.1	11.2	12.3
Unibail-Rodamco-Westfield SE	0.0	4.8	4.8
Worldline SA	0.1	9.4	10.1
Germany			
Aixtron SE	3.8	36.1	36.1
Alstria Office REIT-AG	0.7	10.9	20.4
Aumann AG	1.2	2.8	2.8
BASF SE	0.0	5.4	5.4
Bilfinger Berger SE	0.1	1.7	1.7
CTS Eventim AG & Co KGaA	0.4	13.3	19.7
Dermapharm Holding SE	0.9	14.0	19.9
Deutsche Pfandbriefbank AG	0.9	15.0	17.5
Deutsche Telekom AG	0.0	6.6	6.6
Durr AG	0.3	4.6	5.4
Fresenius Medical Care AG & Co KGaA	0.0	3.3	3.3
Fresenius SE & Co KGaA	0.0	2.4	2.5
Jenoptic AG	0.9	9.4	12.8
MTU Aero Engines Holding AG	0.0	4.2	4.2
Münchener Rückversicherungs AG	0.0	11.5	17.9
Osram Licht AG	0.1	2.8	2.8
Porsche Automobil Holding SE	0.0	1.7	2.2
RIB Software AG	1.1	9.2	13.5
Siemens AG	0.0	21.0	22.4
Varta AG	0.2	7.0	10.1
Volkswagen AG	0.0	2.9	4.1
Wirecard AG	0.0	5.4	5.4

31 Dec 2019	Shares %	Book value € million	Market value € million
Iceland			
Marel hf	0.1	3.5	3.9
Ireland			
Accenture PLC	0.0	6.2	8.6
Eaton Corporation PLC	0.4	26.1	27.7
Linde PLC	0.0	1.4	2.1
Medtronic PLC	0.0	13.6	14.1
Israel			
Wix.com Ltd	0.2	11.8	11.8
Italy			
Autogrill SpA	1.2	28.0	28.0
De'Longhi SpA	0.5	12.7	12.7
DiaSorin SpA	0.2	7.6	13.8
Hera SpA	0.7	26.2	39.0
Prysmian SpA	0.3	16.8	18.6
Terna Rete Elettrica Nazionale SpA	0.0	1.9	2.4
Japan			
Murata Manufacturing Company Ltd	0.0	4.4	4.4
Luxembourg			
Solutions 30 SE	1.7	13.8	18.5
Netherlands			
Adyen N.V.	0.1	9.7	11.1
Akzo Nobel NV	0.0	3.7	4.9
IMCD Group NV	0.7	17.7	30.3
Koninklijke Ahold NV	0.0	10.9	12.3
Koninklijke KPN NV	0.1	6.8	6.8
Koninklijke Philips NV	0.0	4.0	4.4
NN Group NV	0.1	7.3	8.9
Qiagen NV	0.0	1.8	1.8
Unilever NV	0.0	4.3	5.6
Norway			
Europris ASA	2.3	12.6	13.2
Hofseth BioCare ASA	1.1	1.2	3.3
Norwegian Air Shuttle AS	4.6	29.1	29.1
Norwegian Finans Holding ASA	1.8	23.8	32.0
Protector Forsikring ASA	0.9	1.6	4.0
Storebrand ASA	0.9	17.1	28.0

31 Dec 2019	Shares %	Book value € million	Market value € million
Yara International ASA	0.1	12.2	12.4
Spain			
Enagas SA	0.1	7.6	7.6
Ferrovial SA	0.1	6.6	9.9
Grifols SA	0.0	4.4	4.7
Iberdrola SA	0.0	9.6	14.6
Naturgy Energy Group SA	0.0	8.7	10.7
Red Electrica Corp SA	0.1	8.4	8.4
Sweden			
Atrium Ljungberg AB	6.1	82.9	175.2
Fastighets AB Balder	0.4	14.8	33.2
Hennes & Mauritz AB	0.0	2.4	2.7
Hufvudstaden AB	0.6	10.0	22.7
Munters Group AB	0.6	4.4	5.1
Volvo AB	0.0	2.8	3.0
Switzerland			
ABB Ltd	0.0	11.4	12.5
Alcon Inc	0.0	2.2	2.5
Dufry AG	0.1	6.6	6.6
Lonza Group AG	0.0	6.9	8.1
Novartis AG	0.0	9.6	12.3
Roche Holding AG	0.0	8.3	11.6
Sonova Holding AG	0.0	3.3	4.1
Swisscom AG	0.0	3.5	3.9
Swiss Re AG	0.0	7.3	9.0
United Kingdom			
AstraZeneca PLC	0.0	6.1	8.0
Aviva PLC	0.0	4.0	4.0
British Land Co PLC	0.0	2.7	2.9
Croda International PLC	0.1	3.1	4.7
GlaxoSmithKline PLC	0.0	6.2	7.3
Halma PLC	0.1	7.3	8.4
HomeServe plc	0.2	7.3	7.9
Inchcape PLC	0.5	16.2	16.6
Smith & Nephew PLC	0.0	4.9	6.5
The Weir Group PLC	0.2	10.4	11.2
Vodafone Group PLC	0.0	7.7	7.7

31 Dec 2019	Shares %	Book value € million	Market value € million
WH Smith PLC	0.5	12.0	18.3
United States			
Abbott Laboratories	0.0	10.2	11.6
AbbVie Inc	0.0	7.2	7.9
Adobe Inc	0.0	13.3	14.7
Advanced Micro Devices Inc	0.1	16.3	24.5
Amgen Inc	0.0	6.5	8.6
Antero Resources Corp	0.2	1.4	1.4
Apple Inc	0.0	55.7	101.8
Applied Materials Inc	0.0	2.1	2.7
Biogen Inc	0.0	7.6	7.9
BioMarin Pharmaceutical Inc	0.0	3.5	3.8
Boston Scientific Corp	0.0	8.0	12.1
Bristol-Myers Squibb Co	0.0	7.9	8.6
Broadridge Financial Solutions Inc	0.0	4.9	4.9
CrowdStrike Holdings Inc.	0.1	2.2	2.2
CVS Health Corp	0.0	4.0	4.0
Danaher Corp	0.0	11.5	13.9
Edwards Lifesciences Corp	0.0	2.2	4.2
Eli Lilly and Company	0.0	4.8	5.3
Facebook Inc	0.0	8.1	9.1
Fidelity National Information Services Inc	0.0	9.2	9.3
Gilead Sciences Inc	0.0	8.7	8.7
Global Payments Inc	0.0	5.6	6.5
Google Inc	0.0	20.4	28.5
HCA Holdings Inc	0.0	8.2	9.9
Intuitive Surgical Inc	0.0	10.3	13.1
IQVIA Holdings Inc	0.0	2.6	2.7
Johnson & Johnson	0.0	13.8	15.6
Mastercard Incorporated	0.0	7.6	14.6
Merck & Co Inc	0.0	10.6	12.1
Microsoft Corp	0.0	38.8	82.7
NIKE Inc	0.0	2.5	4.5
NVIDIA CORPORATION	0.0	29.6	36.7
PayPal Holdings Inc	0.0	9.6	9.6

31 Dec 2019	Shares %	Book value € million	Market value € million
Pfizer Inc	0.0	8.9	9.4
Salesforce.com Inc	0.0	19.4	26.8
Splunk Inc	0.0	6.8	8.0
Square Inc	0.0	2.8	2.8
UnitedHealth Group Inc	0.0	14.6	18.3
Verisk Analytics Inc	0.0	9.2	9.4
Visa Inc	0.0	25.6	42.8
VMware Inc	0.0	5.4	5.4
Waste Management Inc	0.0	9.1	9.1
Zoetis Inc	0.0	10.6	15.3
Other		0.3	27.7
Foreign equities, total		1,531.5	2,055.7
Listed equities, total		4,863.9	7,719.9
Unlisted equities			
Finland			
Ahlström Capital Oy	3.7	8.4	29.1
HappySpace Oy	16.7	2.0	18.0
Havator Group Oy	9.2	5.4	8.0
Kaleva Mutual Insurance Company	30.0	2.6	2.6
Mehiläinen Konserni Oy	7.7	75.0	77.6
Sponff Oy	15.3	2.1	3.6
Tornator Oy	15.3	24.4	127.4
Other		0.2	0.3
Finnish equities, total		120.1	266.6
Other countries			
The Netherlands			
BenCo Insurance Holding BV	3.5	0.7	1.8
Foreign equities, total		0.7	1.8
Unlisted equities, total		120.8	268.4

31 Dec 2019	Book value € million	Fair value € million
Hedge funds		
Bahama		
Cerberus Institutional Overseas IV Ltd	1.5	6.9
Cayman Islands		
Axonic Special Opportunities SBL Overseas Fund Ltd	89.7	91.8
Bayview MSR Opportunity Offshore L.P.	89.1	139.4
Bayview Opportunity Offshore IV a L.P.	89.2	197.9
Black Diamond Credit Strategies Offshore Ltd	66.9	68.1
Blackstone First Avenue Offshore Fund Ltd	456.1	625.6
Capula Global Relative Value Fund Ltd	76.5	137.1
Capula Tail Risk Fund Ltd	46.9	46.9
CarVal Credit Value Fund B II L.P.	3.3	5.3
Carval Credit Value Fund B IV L.P.	98.7	107.1
CarVal Global Value Fund L.P.	2.0	6.6
CGRMO Offshore Feeder L.P.	151.1	322.2
Chenavari European Deleveraging Opportunities Fund II L.P.	17.5	21.9
CS Iris V Fund Ltd	23.8	30.2
CVI Credit Value Fund B III L.P.	84.3	106.9
Dialectic Antithesis Offshore Ltd	20.7	20.7
Double Black Diamond Ltd	42.8	80.6
EJF Debt Opportunities Offshore Fund Ltd	209.6	363.9
EJF Speciality Finance Opportunities Offshore Fund L.P.	4.4	5.2
Elan Feeder Fund Ltd	109.3	197.4
Element Capital Feeder Fund Ltd	28.9	203.5
Elliot International Ltd	75.8	233.5
Fir Tree International Value Fund Ltd	5.8	10.3
Fir Tree Special Opportunities Fund VII L.P.	13.8	13.8
Five Mile Capital Partners II L.P.	0.5	0.9
Glenview Capital Partners Ltd	10.1	21.6
Golden Tree Credit Opportunities Ltd	2.7	15.2
Golden Tree Distressed Debt Fund (Cayman) LP	33.9	71.0
Golden Tree Distressed Fund 2014 (Cayman) L.P.	48.1	69.5
Golden Tree Distressed Fund III L.P.	29.0	30.3
Golden Tree Offshore Fund II Ltd	8.8	10.2
Golden Tree Offshore Fund Ltd	91.5	109.3
GSA Quantitative Futures Master Fund Ltd	24.0	37.1

31 Dec 2019	Book value € million	Fair value € million
GSA Trend Fund Ltd	19.4	19.4
HBK Merger Strategies	105.6	138.8
HBK Multi-Strategy Offshore Fund Ltd	62.0	117.4
King Street Capital Ltd	1.4	3.1
Kuttura Fund L.P.	25.6	58.6
Magnetar PRA Fund Ltd	35.7	46.1
Mortality Fund I	100.6	115.1
NWI Emerging Market Currency Fund	32.2	49.4
Pentwater Event Fund Ltd	29.6	61.6
Reservoir Capital Overseas Partners II L.P.	3.7	5.1
Soroban Opportunities Cayman Fund Ltd	68.5	111.2
Systematica 73 Fund	50.9	52.7
Third Point Offshore Fund Ltd	44.4	75.7
Two Sigma Absolute Return Cayman Fund Ltd	52.5	85.3
Whippoorwill Distressed Opportunity Fund Ltd	2.6	6.1
Zais Opportunity Fund Ltd	15.0	50.2
Zebedee Core Fund Ltd	28.9	33.3
Zebedee Focus Fund Ltd B	27.1	31.0
ZP Offshore Utility Fund Ltd	42.7	66.0
Ireland		
Kirakka ICAV	95.1	95.1
Partakko Fund L.P.	85.7	91.9
Raattama Fund Limited	66.0	70.8
Jersey C.I.		
Pharo Gaia	67.9	79.3
Pharo Macro Fund Ltd	24.0	43.0
Luxembourg		
Inari Fund	234.9	432.6
United States		
Aviator Capital End-Of-Life Offshore Feeder Fund L.P.	36.3	45.0
Aviator Capital Mid-Life Offshore Feeder Fund L.P.	53.0	73.2
Aviator Fund IV	101.2	107.6
Bayview Liquid Credit Strategies Domestic L.P.	23.2	34.2
Bayview Opportunity Domestic V L.P.	212.2	255.9
Bayview Opportunity V Oceanview L.P.	66.7	67.7
EJF Sidecar Fund L.L.C. - Series (D)	1.2	2.2
Five Mile Capital Partners L.L.C.	1.5	1.5
H/2 Special Opportunities II L.P.	3.3	6.5

31 Dec 2019	Book value € million	Fair value € million
H/2 Special Opportunities III L.P.	60.7	85.5
H/2 Special Opportunities IV L.P.	76.1	83.3
Ivalo Fund L.P.	346.9	818.5
Koitere Fund L.P.	107.4	203.9
READY CAP CORP	1.1	1.1
Seveti Fund L.P.	834.6	1,548.6
Virgin Islands		
Spinnaker Global Emerging Markets Fund Ltd	46.5	83.7
Other	1.1	2.8
Hedge funds, total	5,351.8	8,767.8
Real estate funds		
Finland		
CapMan RE II Ky	1.2	1.2
CapMan Real Estate I Ky	2.0	2.0
ICECAPITAL Housing Fund IV Ky	17.8	24.7
NV Property Fund I Ky	33.4	33.4
Pegasos Real Estate Ky	21.3	23.5
Vantaan Valo Ky	318.2	318.2
VT Property Fund I Ky	30.4	37.7
Ålandsbanken Lunastuontti I Ky	17.3	17.9
Jersey C.I.		
DRC European Real Estate Debt Fund III L.P.	46.0	46.0
Luxembourg		
Ares European Real Estate Fund V SCSp	13.4	13.4
Baumont Real Estate One SCSp	9.4	9.4
Blackstone Real Estate Partners VI Europe SCSp	2.3	2.3
CapMan Hotels II FCP-RAIF	75.0	75.0
CapMan Nordic Real Estate FCP-SIF	20.0	36.1
CapMan Nordic Real Estate II FCP-RAIF	30.1	32.0
CCP IV SCSp	26.3	26.3
ECE European Prime Shopping Centre II A SCSp SIF	46.0	54.6
ECE Progressive Income Growth Fund SCA SICAV-RAIF	99.3	101.1
Encore+	75.0	75.1
European Property Investors Special Opportunities 5 SCSp	1.4	1.4
EVP M Campus Lux SCSp	33.4	34.5

	Book value € million	Fair value € million
31 Dec 2019		
Northern Horizon Nordic Aged Care SCSp SICAV-SIF	20.6	20.9
Oreima III	50.0	55.2
Prologis Europe Logistics Fund FCP-FIS	74.9	100.3
TT Holdings SCSp	65.0	84.6
Sweden		
Aros Bostad III AB	2.2	2.2
Aros Bostadskapital 12 AB	8.3	8.3
Aros Bostadskapital 8 AB	0.8	0.8
Aros Bostadskapital 9 AB	3.7	8.1
Serena Properties AB	29.9	29.9
United Kingdom		
Ares European Real Estate Fund II (Euro) L.P.	2.2	2.2
Ares European Real Estate Fund III (Euro) L.P.	1.2	1.2
Benson Elliot Real Estate Partners IV L.P.	24.2	33.2
Benson Elliot Real Estate Partners V L.P.	4.7	4.7
Blackstone Real Estate Partners Europe III L.P.	10.9	10.9
Clearbell II L.P.	5.7	20.0
Clearbell III L.P.	23.2	25.2
Curzon Capital Partners 5 Long-Life L.P.	52.4	54.6
Curzon Capital Partners IV L.P.	32.6	32.6
Lumiere Holdings L.P.	3.8	3.8
Moorfield Audley Real Estate Fund B L.P.	32.0	35.9
Retail Centres V (Sweden) Limited Partnership	70.5	70.5
United States		
Colony Investors VII L.P.	2.2	2.2
Colony Parallel Investors VIII L.P.	1.6	1.6
Other	0.8	3.3
Real estate funds, total	1,442.7	1,577.9
Fixed-income funds		
Cayman Islands		
Apollo Total Return Fund (Offshore) Ltd. A-1	215.2	242.6
EJF Funding Offshore L.P.	425.2	466.2
H/2 Targeted Return Strategies II L.P.	133.6	148.3
Finland		
Mandatum Life Nordic HY Total return Fund I Eur	50.0	52.2

	Book value € million	Fair value € million
31 Dec 2019		
Ireland		
Wellington Emerging Local Debt USD Class G Accumulating Unhe	159.3	176.4
Luxembourg		
Ashmore EM Short duration Fund-Institutional (ACC)-USD	216.1	225.1
BGF Emerging Markets Bond Fund I2 USD	129.2	142.5
GS Growth & Emerging markets Debt Local I USD Fund	175.8	192.0
Symbiotics-Seb Micro Fd V A/C-NH	25.3	28.1
Norway		
Pareto Nordic Corporate Bond I NOK SICAV	69.8	74.3
United States		
iShares Euro HY Corp Bond ETF	155.2	155.2
iShares iBoxx Corporate ETF	366.2	395.5
iShares iBoxx USD HY Corp ETF	117.4	117.4
OHA Finlandia Credit Fund L.P.	419.6	559.3
Vanguard Intermediate-Term Corporate Bond ETF	137.0	138.2
Fixed-income funds, total	2,794.9	3,113.2
Equity funds		
Cayman Islands		
L1 Capital Long Short (Offshore Feeder) Fund Class B	89.5	99.9
Finland		
Mandatum European Small & Mid Cap Equity S3 Fund	9.0	9.8
Nordea 1 Global Climate and Environment Fund BI EUR	152.0	192.8
Nordea 1 Global Sustainable Enhanced Eq Fund BI EUR	100.0	107.0
Taaleri Rhein Value Equity A	16.0	32.5
Germany		
DB X-trackers harvest CSI 300 China A-shares ETF	266.0	281.4
iShares EURO STOXX 50 UCITS ETF DE	264.2	274.3
iShares EURO STOXX UCITS ETF DE	201.2	205.8
iShares STOXX Europe 600 UCITS ETF DE	4.5	4.8
Ireland		
Hermes Global Emerging Markets Fund Class F USD	110.9	168.0

	Book value € million	Fair value € million
31 Dec 2019		
iShares Russell 2000 ETF	23.1	23.9
Vanguard Emerging Markets Stock Index Fund	393.8	554.0
Vanguard Japan Stock Index Fund JPY	100.7	119.3
Japan		
Ishares Core Nikkei 225 ETF	4.8	6.5
NOMURA ETF – NIKKEI 225	114.8	116.9
Nomura ETF Topix	903.6	932.1
Luxembourg		
Handelsbanken Global Index Criteria Fund A1 EUR SE	200.6	247.1
RAM Emerging Markets Equities class I (P)	47.4	53.1
SSGA Emerging market SRI Enhanced EQ Fund	210.1	233.4
SSgA Enhanced Emerging Markets Equity Fund	232.1	357.1
Sweden		
XACT OMXS30 ETF	149.1	149.1
United Kingdom		
L&G Europe Equity Responsible Exclusions UCITS ETF	200.0	218.7
L&G US Equity Responsible Exclusions UCITS ETF	500.7	506.8
United States		
First Trust Nasdaq Cybersecurity ETF	18.7	26.7
Invesco KBW Bank ETF	19.4	21.9
Invesco QQQ Trust Series 1 ETF	484.6	536.9
iShares Core MSCI Emerging Markets ETF	420.8	430.2
iShares Core S&P 500 ETF	579.8	659.9
iShares ESG MSCI EM ETF	49.2	55.2
iShares MSCI Canada ETF	9.4	10.8
iShares MSCI China ETF	9.9	11.1
iShares MSCI India ETF	7.1	7.1
iShares MSCI Saudi Arabia ETF	85.0	85.0
SPDR S&P 500 ETF TRUST	112.9	122.4
SPDR S&P Regional Banking ETF	20.2	20.6
Vanguard FTSE 250 UCITS ETF	389.8	411.9
Vanguard Institutional Index Fund Plus shares	537.5	1,283.9
Vanguard S&P 500 ETF	830.4	961.1
Other	0.3	0.4
Equity funds, total	7,868.8	9,539.4

31 Dec 2019	Book value € million	Fair value € million
Private equity funds		
Australia		
CHAMP IV Funds	23.8	39.2
Canada		
ISQ Global Infrastructure Fund II (EU) L.P.	46.3	47.6
KKR Precise Co-Invest (EUR) LP	30.0	33.0
KKR Starlight Co-Invest L.P.	28.9	28.9
Cayman Islands		
1901 (Offshore) Partners I L.P.	21.6	28.3
Affinity Asia Pacific Fund V L.P.	8.1	8.1
Alinda Infrastructure Parallel Fund II L.P.	27.4	27.4
Apollo Infra Equity Fund	53.6	60.0
Auda Asia II L.P.	12.1	15.0
Auda Secondary II Feeder Fund L.P.	2.4	2.4
BCP Braavos Aggregator (Cayman) LP	20.8	20.8
BDCM Offshore Opportunity Fund IV Ltd	59.7	64.0
Bellwether Co-Invest L.P.	17.3	17.8
CDH Fund V L.P.	28.0	44.2
Dragon Co-Invest L.P.	7.9	7.9
Elbrus Capital Fund I L.P.	10.0	10.0
Elbrus Capital Fund II L.P.	25.2	56.3
Gamut Investment Overseas Fund I L.P.	32.1	32.3
Hamilton Lane Co-Investment Feeder Fund IV L.P.	47.3	52.3
I Squared Nautilus Partners L.P.	16.2	22.4
I Squared Transportation Europe L.P.	22.9	27.5
JPW TopCo L.P.	11.8	12.3
KKR CK Co-Invest L.P.	26.5	28.0
KKR Sigma Co-Invest II L.P.	20.0	24.0
K-P Co-Investment L.P.	18.7	22.4
MBK Partners Fund II L.P.	5.3	5.3
MBK Partners Fund III L.P.	49.2	87.8
MBK Partners Fund IV L.P.	60.1	75.6
Navis Asia Fund VII L.P.	63.1	80.6
Onex Partners V L.P.	6.8	6.8
Onex Richmond Co-Investment L.P.	9.8	9.8
Primavera Capital Fund II L.P.	62.1	76.9
Primavera Capital III L.P.	27.9	30.6

31 Dec 2019	Book value € million	Fair value € million
Strategic Value Special Situations Feeder Fund III L.P.	40.8	70.1
Strategic Value Special Situations Feeder Fund IV L.P.	30.1	35.6
TPG Asia VI L.P.	58.4	73.7
TPG Asia VII (B) L.P.	29.3	29.3
TPG Wireman Co-Invest L.P.	13.1	19.0
Vista Equity Partners Fund VI-A L.P.	88.3	107.1
VMPIC I L.P.	79.9	99.2
Finland		
AC Cleantech Growth Fund I Ky	10.1	10.1
Icebreaker Fund I Ky	1.2	1.7
MAKI.VC Fund I Ky	1.6	1.7
MB Equity Fund IV Ky	7.1	10.2
MB Equity Fund V Ky	20.5	20.5
Oltavan Tuulipuisto Holding Ky	1.1	1.1
Power Fund II Ky	3.1	3.1
Power Fund III Ky	6.2	6.2
Sponsor Fund IV Ky	18.4	21.8
Vaaka Partners Buyout Fund III Ky	8.2	11.0
France		
Asmodée Co-Invest S.L.P.	10.8	10.8
Ethypharm Co-Invest FPCI	13.4	16.6
PAI Europe VII-1	5.8	5.8
Guernsey		
Adagio Co-Invest L.P.	5.0	11.5
CapMan Buyout IX Fund A L.P.	11.1	11.1
CapMan Buyout X Fund A L.P.	6.5	6.5
CapMan Russia Fund L.P.	5.8	5.8
CapMan Technology Fund 2007 L.P.	1.8	1.8
Cinven Cullinan L.P.	5.0	10.9
Kool Investment L.P.	11.7	20.5
Permira Europe IV L.P.2	5.1	7.2
Permira VI L.P. 1	78.0	94.7
The Fifth Cinven Fund (No. 1) L.P.	21.4	21.4
The Sixth Cinven Fund (No. 1) L.P.	49.4	55.1
Jersey C.I.		
Alpha Private Equity Fund 5 - JABBAH CI L.P.	2.6	2.6
CapVest Equity Partners III L.P.	11.9	24.3

31 Dec 2019	Book value € million	Fair value € million
Luxembourg		
Advent International GPE IX-A SCSp	5.8	5.8
Apollo Overseas Partners (Lux) IX SCSp	14.0	14.0
Atos Medical Co-Invest SCSp	15.0	21.3
Calypso International SARL	1.9	12.5
EQT Infrastructure Fund III (No.1) SCSp	63.1	78.7
EQT Infrastructure III Co-Investment (A) SCSp	40.0	40.0
EQT Infrastructure IV (EUR) (No.1) SCSp	17.5	17.5
EQT Prime Co-Investment SCSp	2.5	3.8
EQT VIII Co-Investment (A) SCSp	17.7	18.7
EQT VIII Co-Investment (C) SCSp	8.8	8.8
EQT VIII Co-Investment (H) SCSp	22.3	22.3
IK Small Cap II Fund No2 SCSp	7.5	7.8
IVC New TopHolding SA	33.3	33.8
KKR Global Infrastructure Investors III EEA	28.8	28.8
MTN Infrastructure Co-Invest 1 SCSp	16.6	28.8
Refresco Co-Invest SCSp	20.0	22.4
Taaleri SolarWind II SCSp-RAIF	2.1	2.1
Netherlands		
EQT Mid Mkt US Co-Inv Coöperatief U.A. - Class A	16.3	23.6
Singapore		
Bellini Synergy Pte LTD	12.2	15.9
Sweden		
EQT VIII (No.1) SCSp	54.1	54.4
United Kingdom		
EQT Deck Co-Investment L.P.	2.8	5.7
EQT Infrastructure II No. 2 L.P.	16.7	16.7
EQT Kiwi Co-Investment L.P.	13.4	29.5
EQT V No 1 L.P.	1.6	1.6
EQT VI No 1 L.P.	19.3	19.3
EQT VII No 1 L.P.	55.5	65.4
Hg Capital Mercury 2 L.P.	5.9	8.6
Hg Saturn B L.P.	30.3	43.2
Hg Vivaldi 2 Co-Invest LP	15.3	19.5
IK VII L.P.	33.0	44.8
IK VIII Fund No.3 L.P.	57.6	70.1
Industri Kapital 2007 L.P. III	0.5	0.5

31 Dec 2019	Book value € million	Fair value € million
Macquarie European Infrastructure Fund II L.P.	32.9	41.2
PAI Europe VI-1 L.P.	80.2	80.2
Permira Growth Opportunities 1 L.P.	9.2	9.4
United States		
AP Socrates Co-Invest L.P.	9.3	10.5
Apollo Investment Fund VII Euro Holdings L.P.	11.9	11.9
Apollo Overseas Partners (Delaware) VIII L.P.	62.4	72.4
Behrman Capital IV L.P.	28.5	41.5
Blackstone Capital Partners IV L.P.	1.0	1.0
Blackstone Capital Partners V L.P.	3.8	3.8
Blackstone Capital Partners VI L.P.	71.5	101.1
Blackstone Capital Partners VII L.P.	66.9	84.9
Blackstone TN Partners L.P.	10.4	10.4
BlueRun Ventures L.P.	0.7	0.7
Genstar Capital Partners IX BL (EU), L.P.	20.2	20.2
Genstar Capital Partners VII L.P.	51.6	85.6
Genstar Capital Partners VIII BL (EU) L.P.	80.6	112.5
Hamilton Lane Co-Investment Feeder Fund III L.P.	64.5	73.7
Hamilton Lane Co-Investment Fund II L.P.	21.2	38.5
Hamilton Lane Co-Investment Fund L.P.	3.4	3.4
Hamilton Lane Parallel Investors L.P.	83.3	164.7
IRi Parent L.P.	22.1	22.3
IT Co-Investment Holdings Inc	4.5	26.5
Kelso Hammer Co-Investment L.P.	12.7	25.3
Kelso Investment Associates IX L.P.	55.9	73.9
Kelso Investment Associates VII L.P.	0.7	0.7
Kelso Investment Associates VIII L.P.	18.1	18.1
Kelso Investment Associates X, L.P.	15.6	15.8
KKR Banff Co-Invest L.P.	25.6	29.4
MHR Institutional Partners IV L.P.	43.3	43.4
Moelis Capital Partners Opportunity Fund I-B L.P.	10.6	15.4
New Mountain Partners IV L.P.	58.3	64.8
New Mountain Partners V L.P.	44.9	47.8
NexPhase Capital Fund III L.P.	37.1	40.3
NM Z Topco L.L.C.	4.2	6.4
NP Clearway Holdings LP	13.4	13.4
Onex Partners II L.P.	3.3	3.3
Onex Partners III L.P.	27.8	30.2

31 Dec 2019	Book value € million	Fair value € million
Onex Partners IV L.P.	62.1	62.1
OSYS Holdings L.L.C.	6.5	8.6
Pelican Co-Invest Holdings L.P.	26.9	26.9
Platinum Equity Capital Partners II L.P.	5.6	5.6
Platinum Equity Capital Partners III L.P.	26.7	29.4
Platinum Equity Capital Partners IV L.P.	71.2	87.3
Platinum Equity SCRS Co-Investors L.L.C.	6.9	6.9
Platinum Equity Small Cap Fund L.P.	3.4	3.4
RCM Co-Investment Blocker Corp.	7.6	11.5
Surgent NPC Holdco, LP	11.1	11.1
TA XII-B L.P.	34.6	58.2
TA XIII-B L.P.	9.3	9.3
TCW Crescent Mezzanine Partners V L.P.	1.7	2.4
TPG Growth III (B) L.P.	30.3	37.2
TPG GROWTH IV L.P.	21.8	21.8
Warburg Pincus China L.P.	31.4	40.8
Warburg Pincus China-Southeast Asia II-E L.P.	1.5	1.5
Warburg Pincus Energy L.P.	64.8	72.1
Warburg Pincus Global Growth-E, L.P.	16.4	16.4
Warburg Pincus Private Equity X L.P.	7.8	39.0
Warburg Pincus Private Equity XI L.P.	38.9	68.8
Warburg Pincus Private Equity XII-E L.P.	82.0	102.6
Vista Equity Partners Fund VII-A, L.P.	20.1	20.1
Other	2.2	19.8
Private equity funds, total	3,919.4	4,926.0
Funds, total	21,377.7	27,924.3
Parent Company, total	26,362.4	35,912.5
The Group's shareholding deviates from the Parent Company's as follows:		
Kaleva Mutual Insurance Company guarantee capital	3.3	3.3
Ruohoparkki Oy	4.8	4.8
Vaasan Toripysäköinti Oy	2.3	2.3
Other	4.2	4.2
Group, total	26,377.0	35,927.2

17. Changes in tangible and intangible assets, Parent Company

31 Dec 2019, € million	Intangible assets	Tangible assets	Tangible assets	Total
	Other intangible assets	Equipment	Other tangible assets	
Acquisition cost, 1 Jan	1.7	8.0	0.9	10.6
Completely depreciated in the previous year	-0.4	-4.3	0.0	-4.6
Increase	0.0	0.2	0.0	0.3
Decrease	0.0	0.0	0.0	0.0
Acquisition cost, 31 Dec	1.3	4.0	0.9	6.2
Accumulated depreciation, 1 Jan	-1.3	-5.3	0.0	-6.6
Completely depreciated in the previous year	0.4	4.3	0.0	4.6
Depreciation for the financial year	-0.2	-0.4	0.0	-0.6
Accumulated depreciation, 31 Dec	-1.1	-1.5	0.0	-2.6
Book value 31 Dec 2019	0.2	2.5	0.9	3.6
Book value 31 Dec 2018	0.4	2.7	0.9	4.0

Group figures are the same as those of the Parent Company.

18. Loan receivables itemised by guarantee

31 Dec, € million	Parent Company 2019	Parent Company 2018	Group 2019	Group 2018
Bank guarantee	22.2	40.8	22.2	40.8
Guarantee insurance	137.8	103.5	137.8	103.5
Other guarantee	25.1	25.5	25.1	25.5
Remaining acquisition cost, total	185.1	169.8	185.1	169.8
Unsecured, remaining acquisition cost, total	1,814.8	1,389.2	1,814.8	1,389.2

19. Total pension loan receivables itemised by balance sheet item

31 Dec, € million	Parent Company 2019	Parent Company 2018	Group 2019	Group 2018
Loans guaranteed by mortgages	217.5	240.8	217.5	240.8
Other loan receivables	141.5	123.0	141.5	123.0
Remaining acquisition cost, total	359.0	363.8	359.0	363.8

20. Loans to related parties

31 Dec, € million	Parent Company 2019	Parent Company 2018
Loans to Group companies	443.2	530.5

The loan period is usually at most 15 years, and the interest rate is mainly tied to a fixed interest rate or technical interest rate.

21. Derivatives

31 Dec, € million	Parent Company 2019	Parent Company 2018	Group 2019	Group 2018
Other receivables				
Advance payments for option contracts	115.0	139.4	115.0	139.4
Other liabilities				
Advance payments for option contracts	110.2	26.2	110.2	26.2
Value adjustments of derivatives	-135.6	-111.2	-135.6	-111.2
Accruals and deferred income				
Net interest expenses from derivatives	38.9	76.7	38.9	76.7

22. Liabilities to Group companies, other liabilities

	Parent Company 2019	Parent Company 2018	Group 2019	Group 2018
31 Dec, € million				
Other liabilities	0.2	0.4	0.2	0.4

23. Technical provisions

	Parent Company 2019	Parent Company 2018	Group 2019	Group 2018
31 Dec, € million				
Provision for unearned premiums				
Future pensions	17,889.2	17,338.2	17,889.2	17,338.2
Provision for future bonuses	790.3	1,485.9	790.3	1,485.9
Provision for current bonuses	171.0	154.0	171.0	154.0
Equity-linked provision for current and future bonuses	1,423.6	-255.3	1,423.6	-255.3
Total provision for unearned premiums	20,274.1	18,722.8	20,274.1	18,722.8
Provision for claims outstanding				
Current pensions	18,334.0	17,798.6	18,334.0	17,798.6
Total provision for claims outstanding	18,334.0	17,798.6	18,334.0	17,798.6
Total technical provisions	38,608.0	36,521.4	38,608.0	36,521.4

24. Solvency capital

	2019	2018
31 Dec, € million		
Capital and reserves	136.5	130.5
Interest on guarantee capital proposed for distribution	-0.6	-0.7
Valuation difference between fair values on assets and book values of balance sheet items	10,721.5	8,004.4
Provision for future bonuses ¹	790.3	1,485.9
Off-balance sheet commitments	-1.3	-1.2
Intangible assets	-0.2	-0.4
	11,646.3	9,618.5
Minimum solvency capital as required under the Employment Pension Insurance Companies Act, Section 17	2,211.2	1,990.9

¹ An amount (EUR 0.3 million) has been deducted from the provision for future bonuses, and this amount is to be used to cover the amount required for the expense loading discounts contained in the 2019 insurance contributions insofar as the amount (EUR 21.6 million) reserved in the 2018 financial statements was insufficient.

25. Guarantees and liabilities, Parent Company

	2019	2018
31 Dec, € million		
Guarantees given on own behalf		
Assets pledged as security for derivatives ¹	37.1	50.4
Guarantees received		
Assets pledged as security for derivatives ²	78.3	68.4
Asset pledged as security for security loans	2,041.2	2,745.0

¹ Given cash guarantees required for the clarification of derivative contracts to the value of EUR 37.09 million are included in the cash at bank and in hand balance sheet item.

² Received cash guarantees required for the clarification of derivative contracts to the value of EUR 78.31 million are included in the Other liabilities balance sheet item.

26. Capital and reserves

31 Dec, € million	Parent Company 2019	Group 2019
Guarantee capital	11.9	11.9
Other reserves, 1 Jan	111.1	111.1
Profit brought forward from 2018	5.3	5.3
Other reserves, 31 Dec	116.4	116.4
Profit/loss brought forward	7.4	-46.7
Transfer to contingency fund	-5.3	-5.3
Distributed interest on guarantee capital	-0.7	-0.7
	1.5	-52.7
Profit/loss for the financial year	6.7	19.4
Total capital and reserves	136.5	95.0

27. Capital and reserves after proposed profit distribution

31 Dec, € million	Parent Company 2019
Holders of guarantee capital	
Guarantee capital	11.9
Proposed distribution to holders of guarantee capital	0.6
Policyholders	124.0
Total	136.5

28. Distributable profits

31 Dec, € million	Parent Company 2019
Profit for the financial year	6.7
Other capital and reserves	
Other reserves	116.4
Profit brought forward	1.5
Total distributable profits	124.6

29. Guarantee capital

31 Dec 2019, € million	Number	Guarantee capital
Mandatum Life Insurance Company Ltd.	14	2.4
Sampo Plc	57	9.6
	71	11.9

30. Guarantees and liabilities, Parent Company

31 Dec, € million	2019	2018
Contingent liabilities and liabilities not included in the balance sheet		
Derivatives		
Derivatives for hedging purposes		
Currency derivatives		
Forward contracts		
Underlying instrument, absolute value	681.0	1,112.2
Underlying instrument, risk-adjusted value	-473.9	-453.4
Fair value	2.8	-10.8
Currency swap contracts		
Underlying instrument, absolute value	13,535.1	14,232.9
Underlying instrument, risk-adjusted value	-13,535.1	-14,148.3
Fair value	125.8	-36.1
Derivatives for other than hedging purposes		
Interest rate derivatives		
Forward and futures contracts		
Underlying instrument, absolute value	248.0	750.0
Underlying instrument, risk-adjusted value	406.0	-1,226.6
Fair value	-0.7	-5.7
Credit risk derivatives		
Underlying instrument, absolute value	0.0	400.0
Underlying instrument, risk-adjusted value	0.0	394.7
Fair value	0.0	25.9
Interest rate swap contracts		
Underlying instrument, absolute value	4,475.0	1,075.0
Underlying instrument, risk-adjusted value	671.5	-411.3
Fair value	-51.5	-13.9

31 Dec, € million	2019	2018
Currency derivatives		
Option contracts		
Bought		
Underlying instrument, absolute value	591.9	439.1
Underlying instrument, risk-adjusted value	77.1	114.1
Fair value	2.9	3.6
Sold		
Underlying instrument, absolute value	1,200.4	1,139.0
Underlying instrument, risk-adjusted value	-134.7	-78.3
Fair value	-3.1	-1.3
Forward and futures contracts		
Underlying instrument, absolute value	1,044.8	1,128.3
Underlying instrument, risk-adjusted value	-152.9	47.3
Fair value	-3.2	-9.4
Currency swap contracts		
Underlying instrument, absolute value	398.2	996.3
Underlying instrument, risk-adjusted value	309.8	180.3
Fair value	9.6	4.8
Equity derivatives		
Forward and futures contracts		
Underlying instrument, absolute value	0.0	101.7
Underlying instrument, risk-adjusted value	0.0	101.7
Fair value	0.0	-7.9
Option contracts		
Bought		
Underlying instrument, absolute value	284.6	599.1
Underlying instrument, risk-adjusted value	-21.6	77.7
Fair value	-5.4	-17.6
Sold		
Underlying instrument, absolute value	281.2	320.3
Underlying instrument, risk-adjusted value	-17.5	106.3
Fair value	-5.2	-9.4

31 Dec, € million	2019	2018
Other derivatives		
Forward and futures contracts		
Underlying instrument, absolute value	0.0	391.4
Underlying instrument, risk-adjusted value	0.0	25.0
Fair value	0.0	-7.8
Option contracts		
Bought		
Underlying instrument, absolute value	0.0	263.5
Underlying instrument, risk-adjusted value	0.0	64.9
Fair value	0.0	-2.0
Sold		
Underlying instrument, absolute value	0.0	318.7
Underlying instrument, risk-adjusted value	0.0	-85.0
Fair value	0.0	-3.9
Swap contracts		
Underlying instrument, absolute value	684.9	1,360.0
Underlying instrument, risk-adjusted value	684.9	1,360.0
Fair value	-10.8	4.9
Total		
Underlying instrument, absolute value	23,425.0	24,627.7
Underlying instrument, risk-adjusted value	-12,186.5	-13,930.8
Fair value	61.3	-86.6

The fair values of quoted derivatives have been calculated using the price-quoted on the stock exchange. The fair values of other derivatives are based on market prices of corresponding quoted contracts or on estimates of the fair values presented by outside parties. Most of the derivative contracts will mature in 2020. Swap contracts have longer durations and will mature between 2020 and 2049.

Currency hedging

Currency hedging is used to protect against a fall in the value of foreign-currency-denominated investments due to the strengthening of the euro. Varma hedges its open exchange rate risks in all other asset classes except equity investments. The hedge accounting model used is fair value hedge. The risk that is hedged is the exchange rate risk. Varma hedges its foreign-currency-denominated investment position, and the amount of the position changes according to the investment decisions and the market situation. The hedging instruments used are foreign currency forwards, foreign currency swaps and foreign currency options, used to sell the currency risks that are included in Varma's investment portfolio. The duration of the financial instruments hedging against the exchange rate risk is mainly less than one year.

The hedged item and the hedging instrument can be considered to have an inverse correlation in terms of the hedged amount and the currency. The effectiveness of hedging is assessed day by day and currency by currency by means of hedge effectiveness testing. The hedge effectiveness testing shows the negative correlation between the hedged item and hedging instrument. Hedge effectiveness (negative correlation) must be within the range of 80–125%.

Accounting treatment complies with chapter 5, section 2 of the Accounting Act. Derivative contracts for hedging purposes are treated as items not included in the balance sheet when the fair value of the derivative contract is positive on the closing date. Derivative contracts with a negative fair value that are used for hedging purposes are treated as items not included in the balance sheet when their volume at any given moment is below the maximum hedging ratio established in the derivatives policy.

Varma applies continuous retrospective assessment of the effectiveness of derivative contracts. Furthermore, as part of its risk management activities Varma dynamically recalibrates currency hedges on a daily basis, if needed.

Currencies that made up a significant part of investments' currency distribution on 31 December:

31 Dec, € million	USD	JPY	GBP	USD	SEK	NOK
	2019	2019	2019	2018	2018	2018
Foreign-currency-denominated investments	23,485.7	1,179.3	870.1	22,152.2	1,057.4	349.9
of which investments left unhedged against currency risk	10,803.3	707.6	659.4	8,487.5	842.6	185.8
of which investments hedged against currency risk	12,682.4	471.7	210.7	13,664.7	214.8	164.1
Hedging currency derivatives	-13,049.7	-346.9	-227.0	-13,736.1	-172.1	-60.7
Non-hedging currency derivatives	55.5	-11.4	8.9	-213.9	400.3	98.0
Open currency position	10,491.6	821.0	651.9	8,202.2	1,285.7	387.2
Hedging ratio according to the hedging policy	103%	74%	108%	101%	80%	37%

The principles applied to the use of derivative contracts and the risk management strategy for derivatives are described in the note on risk management.

31. Guarantees and liabilities, Parent Company

31 Dec, € million	2019	2018
Investment commitments		
Private equity funds	2,930.9	2,804.9
Other funds	1,308.4	1,703.2
Pension liabilities		
Pension commitments (recognised as debt)	1.4	1.4
Leasing and renting liabilities		
Expiring next year	0.6	0.6
Expiring later	0.7	0.7
Other liabilities		
Varma Mutual Pension Insurance Company belongs to a value-added tax liability group together with Veritas Pension Insurance, Tieto Esy Oy and real estate companies owned by the aforementioned companies		
Group members are collectively responsible for the value-added tax payable by the group	-1.6	-2.1
Obligation to verify VAT allowances of real estate investments	29.0	36.7
Security to meet shareholder agreements' terms and conditions	10.0	10.0
Loaned securities		
Bonds		
Nominal value	1,245.4	1,748.2
Remaining acquisition cost	1,232.1	1,757.2
Fair value	1,321.8	1,760.6
Equities		
Remaining acquisition cost	582.5	901.0
Fair value	639.2	924.1

Loaned securities are included in the balance sheet. The counterparty to the lending operations is the custodian bank, Northern Trust Co. London, with which borrowers post collateral. The collateral of the loans are securities. The loans can be cancelled at any time.

32. Balance sheet and income statement at fair values

Balance sheet at fair value, Parent Company

31 Dec, € million	2019	2018	2017	2016	2015
ASSETS					
Investments	48,709	44,015	45,409	42,852	41,293
Receivables	1,161	858	747	604	654
Equipment	4	4	5	4	11
	49,873	44,878	46,161	43,460	41,958
LIABILITIES					
Capital and reserves	136	130	124	118	113
Valuation differences	10,721	8,004	9,147	9,625	9,755
Equalisation provision	0	0	0	1,034	1,171
Provision for future bonuses	790	1,486	2,265	-578	-1,083
Other liabilities not included in the balance sheet	-1	-1	-1	0	0
Total solvency capital	11,646	9,619	11,534	10,199	9,956
Provision for current bonuses (for client bonuses)	171	154	162	122	115
Equity-linked provision for current and future bonuses	1,424	-255	769	324	1,402
Actual technical provision	36,223	35,137	33,501	32,599	30,260
Total	37,647	34,882	34,270	32,923	31,662
Other liabilities	409	224	195	215	225
	49,873	44,878	46,161	43,460	41,958

Income statement at fair value, Parent Company

1 Jan–31 Dec, € million	2019	2018	2017	2016	2015
Premiums written	5,286	5,118	4,867	4,675	4,576
Claims paid	-5,623	-5,404	-5,248	-5,005	-4,835
Change in technical provisions	-2,610	-446	-1,324	-1,063	-1,463
Net investment income	5,268	-872	3,373	1,982	1,713
Total operating expenses	-124	-125	-129	-138	-145
Other result	8	-4	-8	14	-3
Taxes	-7	-8	-7	-8	-8
Total result ¹	2,197	-1,741	1,524	457	-164

¹ Result at fair value before change in provision for current and future bonuses and equalisation provision.

RISK MANAGEMENT

Risk management as an element of internal control

Varma's internal control is a process that aims to ensure:

- the achievement of the goals and objectives set,
- economical, efficient and productive use of resources,
- sufficient management of operations-related risks,
- reliability of reporting and other management information,
- compliance with the decisions of the Board and other bodies and with internal rules, regulations and practices.

Risk management is an element of internal control and involves the identification, assessment, limitation and control of risks arising from and closely connected with the company's business operations. Internal control is a management tool that helps the company to function efficiently, economically and reliably.

Varma is managed in a professional manner and in accordance with sound and cautious business principles. Written procedures as well as quantitative and qualitative goals guide the company's key functions. Varma's risk management plan takes into account what the Board of Directors decides on the content and organisation of internal control, on implementation of the internal control sectors and principles and on the joint guidelines for the internal control of the Group.

The Board of Directors follows a charter, which defines its core tasks and operating

principles. As part of the company's internal control function, the Board deals with such matters as the company's strategy, basic strategies connected with business development and management, risks, financial reporting, budgets, investments, pension insurance business, action plans, and key development projects.

Risk management – organisation, responsibilities, supervision and reporting

The Supervisory Board's task is to supervise the administration of Varma, which is entrusted to the Board of Directors and the President and CEO.

The Board of Directors annually approves the risk management system that covers all operations, the principles of internal control, the risk and solvency assessment, and the contingency plan. The Board also assesses whether the company's internal control is appropriately arranged. The Board of Directors' Audit Committee supervises financial and other reporting and the status of internal control, e.g. by tracking the work in progress of internal and external auditing and by reviewing a variety of audit reports. The President and CEO monitors the company's risks in accordance with the principles of the risk management system, and the principles laid down in investment and contingency plans approved by the Board of Directors.

The Executive Group monitors the risk management processes and maintains and develops guidelines for risk management and contingency planning.

Material risks that are realised are reported to the Board of Directors quarterly and, if the risks have changed significantly, without delay.

The company's supervisory auditors and the person in charge of the internal audit take part, if necessary, in the meetings of the Audit Committee.

Line managers and other supervisors are responsible for organising internal control, risk management, Compliance activities and good governance in their areas of responsibility, in accordance with the company-level operating principles (risk and solvency assessment). The detailed plans and guidelines of each business function supplement the plans and principles approved by the Board of Directors. Risk-taking limits and the indicators used are laid down and monitored separately by each function. Each function is responsible for implementing action plans and budgets, and for operating efficiency, the supervision of outsourced operations and preparing for unsettled conditions. Information Management provides the expertise for the development, maintenance, project management, infrastructure and risk management of systems that are the responsibility of the business functions. The targets, responsibilities and means of information security management are defined in the information security policy approved by Varma's Board of Directors. Information Management maintains a separate recovery plan relating to IT disruption.

The function responsible for preparing and implementing investment decisions (Investment Operations) and the supervisory and

reporting function (Financial Administration and Actuaries) have been separated. The decision-making powers and the maximum limits for investments are presented as separate risk limits in the investment plan. The risk control function, which is independent of the Investment Operations, is responsible for monitoring investment risks in accordance with the limits set by the Board of Directors, including a financial-theory- and risk-theory-based assessment of investment risks and the reporting of results. The independent risk control function is involved in reviewing the changes in the investment plan and in the implementation process of new investment products, controls through random inspections instrument pricing, is in charge of calculating the solvency limit and reports on the impact of derivatives on the solvency position.

The Chief Financial Officer is responsible for the independent monitoring of investment positions and risks. Financial Administration reports monthly to the Board of Directors on observations relating to investment risk management. Major observations are reported to the management without delay.

According to the Act on Insurance Companies, the company's responsible actuary must prepare, for the purpose of arranging risk management and investment operations, a statement for the company's Board of Directors on the requirements posed by the nature of and return requirement on technical provisions and maintaining the company's solvency and liquidity, and on the appropriateness of the company's

underwriting risk management, taking into account the nature and scope of the company's operations. Pursuant to the Finnish Employee Pension Insurance Companies Act, the company's actuary must provide a written statement on whether the drafted investment plan meets the requirements posed by the nature of technical provisions on the company's investment operations. The tasks of the investment risk management within the Actuaries include the identification of the risks contained in the investments, measurement of risk levels and reporting on these. The officer responsible for investment risk management within Actuaries reports to the Investment Committee on a monthly basis.

Investment risks and the impacts their realisation would have on Varma's risk-bearing capacity are monitored in a monthly report by the officer responsible for investment risk management in the Actuaries function. The Actuaries function also reports to the Board of Directors on Varma's risk level in relation to the risk level of the earnings-related pension system.

Investment management is responsible for arranging the handling of the investment portfolio and operative investment risk management. The risk management function of Investment Operations monitors the trends in the portfolio position vis-à-vis the risk limits defined in the investment plan and the basic allocation, and reports on them on a daily basis. Adherence to decision-making powers and allocation and investment assignments are monitored by the Investment Operations on a daily basis.

The Financial Administration coordinates the identification and management of ope-

ration, strategic, financial and investment risks in different functions. It also prepares a summary of the risk assessments drawn up by the functions. The Chief Financial Officer is in charge of monitoring operational risks.

The Compliance Officer reports to the Board of Directors on compliance with the insider guidelines. In order to manage the risks relating to malpractice, Varma emphasises the continuous observing of ethical operating principles and applies different control methods for protection against malpractice risks. Each function bears responsibility for managing risks relating to malpractice. Varma has specific guidelines in place to prevent money laundering and the financing of terrorism.

Varma complies with the Finnish Corporate Governance Code for listed companies where applicable.

Goals and general risk management principles

Risk management aims to secure the rights of pensioners and policyholders. Risks relating to the company's operations are identified, assessed, limited and supervised, taking a long-term perspective. Risk management ensures that if risks are realised, they will not cause significant financial losses, or endanger Varma's customer service and other services, the continuity of operations, the attainment of the company's business targets, or affect trust in the company. Varma applies efficient and reliable processes both internally and when co-operating with its partners.

In order to ensure efficient risk management, the company relies on, among other

things, the careful preparation of decisions, use of experts, risk insurance, detailed job descriptions, approval routines, decentralisation of functions and tasks, physical control, data protection and security, personnel training, planning process, maintenance of different backup arrangements, distribution of necessary information and limiting access to confidential information to those who need it. As tasks, power of decision and responsibility are divided, no one person is allowed to deal with a single matter throughout the handling chain, whereupon potentially dangerous combinations have been separated. Actions are subject to independent supervision and approval mechanisms. Personnel are not allowed to participate in the preparation of or decision-making on a matter concerning themselves, their family or friends. IT systems are assigned owners from the line organisation, and the functioning of the IT systems is monitored by the business functions and the IT Executive Group.

When agreeing on the terms of outsourcing, Varma's responsibility for the outsourced functions, e.g. for conforming to regulations, continuous and disturbance-free business operations and contingency planning, are taken into account. The function in charge of outsourcing must take into consideration clear contracts and processes, supervision of the outsourced activities and risks relating to the outsourcing.

Varma also observes good insurance principles and treats all policyholders in a fair manner. All business transactions with policyholders are on market terms. Particular attention is paid to transactions covering

the financing of a policyholder's operations, real estate and other transactions, and leases.

The Corporate Governance Report drawn up by the Board and the Salary and Remuneration Statement are published on Varma's [website](#).

Business risks

The company's core processes comprise insuring entrepreneurs and employees, managing the disability risk, securing pensions and retirement. Essential risks are related to investments, information management, the networked operation of the pension system, and to adjusting the control system and operating models to changes in the operating environment and legislation.

Varma's most important operational requirement is to manage all pension benefits and insurance transactions correctly and on time. Financially the most important risks are those concerning investment operations.

The pension system may also be affected by risks connected with its structure and functioning, and the country's economy. These are discussed in more detail in the section 'Strategic risks'.

Strategic risks

Varma has one head office, a simple group structure, statutory products, a small number of staff relative to its turnover, and a low number of transactions relative to its investment volume. Varma analyses its risks from bottom to top and from top to bottom so that it can ensure that all company risks are comprehensively covered from different perspectives.

Financial and investment risks

Varma's main risk is related to solvency management. The main factors relating to solvency are insurance and investment risks.

Insurance risks

The Finnish earnings-related pension system functions on a partially funded basis with respect to the Employees Pensions Act (TyEL). Around one fifth of the pensions paid each year is previously funded, while the remaining part is a pooled component, which is covered by annually collected insurance contributions. The funded parts of the pension are the responsibility of individual pension institutions, while the pooled components are the joint responsibility of all the pension institutions.

The provision for pooled claims contained in the technical provision acts as a buffer for jointly managed insurance business. The amount of the provision for pooled claims in the entire earnings-related pension system is estimated to correspond to nearly 75% of the following year's PAYG pension expenditure, but a relatively rapid decline is foreseen. The clearing system eliminates the effects caused by the varying development of the number and age structure of employees insured by different pension insurance institutions. Thus the cost of the pooled components presents no risk for the individual pension institution.

Basic pensions under the Self-employed Persons Pensions Act YEL are financed in full by the insurance contributions collected annually in accordance with the pay-as-you-go system and by the State's

contribution and do not present a risk for the individual pension institution.

The level of earnings-related pension cover is based on a defined benefit pension scheme, and is therefore not based directly on the return on funded pension assets. Earnings-related pension benefits are secured for the insured and pensioners by a statutory joint and several liability for bankruptcy that applies to all earnings-related pension insurance institutions. The costs of pension provision are borne by employers and employees together. The Ministry of Social Affairs and Health annually confirms the common calculation bases concerning the technical provisions for earnings-related pension insurance companies. The calculation bases include issues such as actuarial assumptions used in the calculation of technical provisions, for example, mortality and disability incidence rate. Under the TyEL act, the calculation bases must be secure and, should the base for technical provisions prove insufficient for all earnings-related pension insurance institutions, the technical provisions can be supplemented with a clearing system.

The risks of Varma's insurance business are linked to the sufficiency of the insurance contributions collected and the technical provisions accumulated from them in relation to the pensions that are the company's responsibility. Because common calculation bases can be changed annually, and the clearing system acts as a buffer for all insurance risks concerning earnings-related pension insurance institutions, the risk for the individual pension institution lies in its deviation from the average of the pension system. Insurance risks are carried by the provision for future bonuses, which is a component of the solvency capital, and they

According to the calculation, the structure of Varma's technical provisions on 31 December 2019 was as follows:

	€ million	%
TyEL basic insurance		
Provision for unearned premiums		
Future pension liabilities	17,869.9	46.3%
Provision for future bonuses	790.3	2.0%
Provision for current bonuses	171.0	0.4%
Equity-linked provision for current and future bonuses	1,423.6	3.7%
Total provision for unearned premiums	20,254.8	52.5%
Provision for claims outstanding		
Current pension liabilities	17,873.0	46.3%
Total provision for claims outstanding	17,873.0	46.3%
TyEL basic pension insurance, total	38,127.8	98.8%
TEL compliant supplementary pension insurance, total	461.0	1.2%
YEL basic pension insurance, total	19.3	0.0%
YEL compliant supplementary pension insurance, total	0.0	0.0%
Total technical provisions	38,608.0	100.0%

are also taken into account in the calculation of the solvency limit.

Technical provisions are calculated per person and insurance after the financial year in an annual calculation, after employers have provided the required earnings data. The Finnish Centre for Pensions carries out the clearing in the autumn following the financial year, at which time the remaining components of the technical provisions can be calculated. As of the beginning of 2019, information required for the calculation of technical provisions will also be obtained from the Incomes Register. This brought the calculation closer to real time and eliminates the need for separate annual calculations.

Neither the age structure of the employees

insured by Varma nor the employers' size or lines of business deviate significantly from the average for all earnings-related pension institutions. Thus, Varma carries little risk relating to an atypical insurance portfolio.

Risk management in insurance business applies insurance technique analyses. Insurance risks are analysed using, for example, a risk assumption analysis (mortality, disability intensity), financial statements and business result analyses (insurance technique, distribution of responsibility) and, e.g., by compiling statistics on contribution losses and disability pension expenditure.

The risks involved in technical provisions and the assets covering technical provisions,

i.e. insurance and investment risks, are provided for by the solvency capital. The amount of solvency capital is monitored in relation to the technical provisions and to the solvency limit calculated on the basis of investment allocation. The calculation of the solvency limit also takes into account the insurance risk. Thus, solvency capital provides the company with a buffer especially for years in which the return on the assets covering the technical provisions is below the interest credited on technical provisions.

A part of the interest credited on technical provisions (20%) is determined retroactively and is based on the pension insurance companies' actual equity returns. An equity-linked provision for current and future bonuses, which is between -20% and +1% of the technical provisions, helps the insurance companies to carry the risks involved. If a pension institution's equity returns differ from the average, it must employ its solvency capital to carry the risks that this involves. When the average equity return is calculated, the weight of the largest pension institutions is limited.

Investment Risks

Investment risk definitions

Varma's investment risks are described as follows.

Market risk is the fluctuation of the value of investments. The greatest market risk relates to equities. Other market risks are the interest rate risk, foreign currency risk, and the value change risk of real estate. Interest rate risk can be realised as a price risk, or as a reinvestment risk.

Inflation risk means the decrease of the real value or return of assets.

Credit risk refers to a danger of loss caused by the inability of the counterparty to honour its commitment.

Liquidity risk refers to the realisation of cash flow at a different amount than expected. A risk is also constituted by investments that cannot be converted into cash at all or can only be converted at a major loss.

Concentration risk refers to the increase in market, credit and liquidity risks as a result of insufficient diversification of the portfolio.

The model risk is constituted by the risks involved in risk measurement. In measurement it is necessary to make assumptions and simplifications concerning calculation methods and data, which may deviate from reality. There may also be risks related to the valuation of investments, and some of the investments' values are available with a delay.

General risk management principles for investments

Management of investment risks involves the determination of acceptable risk levels for different investment categories within the framework approved by the Board of Directors, continuous risk measurement using selected methods, comparison with acceptable levels, and reporting. Risk management also involves adaptation of the investment portfolio so that a correct risk/return ratio can be maintained. The nature of technical provisions and their return requirement are also taken into account when the time span and liquidity of investments are considered.

The investment plan approved by the Board of Directors defines, among other things, the following:

- the general security goals set for investments,
- the general principles for investment allocation,
- the return, diversification and liquidity goals of investments,
- the criteria for using derivative contracts, and
- the principles for arranging currency risk hedging.

At least once a year, the Board of Directors assesses the status and outlook of Varma's operating environment, the investment risks in terms of changes in value, expected returns, security, and the principles of foreign currency policy. The Board also assesses the requirements imposed by the nature of technical provisions on investment returns and liquidity, and on the foreign currency policy. The company's short-term and long-term risk-bearing capacity and the development of the compa-

ny's solvency is also assessed by the Board at least once a year.

The basic allocation of the investment portfolio laid down in the investment plan approved by the Board of Directors also determines the basic level for the total portfolio risk. The investment portfolio may differ from the target allocation within the allocation limits specifically defined in the investment plan.

Varma aims to maximise the yield expectation at the selected total risk level, which means that investments will have optimum profitability to the extent allowed by the company's risk-bearing capacity. The portfolio's realised market risks and returns generated by investments are regularly monitored and reported in Investment Operations.

Furthermore, Varma takes into account the social responsibility principles of investment allocation, the ownership policy and principles of responsible investment, in which key factors related to environmental, social and governance matters are taken into account in investment decisions.

Varma's investment portfolio's risk structure

Varma's investment portfolio's structure by asset class and returns by asset class for 2019 are presented in the Notes to the Financial Statements.

Geographical allocation of investments in listed equities:

	Risk position 31 Dec 2019 € million	%	Risk position 31 Dec 2018 € million	%
American equities	5,193	30.1	3,246	23.7
European equities	2,742	15.9	2,545	18.6
Other areas	3,638	21.1	2,549	18.6
Finnish equities	5,650	32.8	5,373	39.2
Listed equities	17,223	100.0	13,713	100.0

Direct investments in real estate according to purpose of use:

	Risk position 31 Dec 2019		Risk position 31 Dec 2018	
	€ million	%	€ million	%
Residential premises	861	30.9	821	28.4
Business premises	366	13.1	547	18.9
Other premises	492	17.6	436	15.0
Industrial and warehouse premises	136	4.9	124	4.3
Office premises	936	33.5	967	33.4
Direct real estate investments	2,792	100.0	2,895	100.0

The vacancy rate of business premises was 4.8% (5.3%).

Bonds according to credit rating:

	Market value (excl. derivatives) 31 Dec 2019		Market value (excl. derivatives) 31 Dec 2018	
	€ million	%	€ million	%
AAA	220	2.3	363	3.4
AA	1,836	19.1	1,691	15.9
A	1,501	15.6	1,661	15.6
BBB+ – BBB-	2,373	24.7	2,697	25.4
BBB or lower	2,588	26.9	3,082	29.0
Not rated	1,096	11.4	1,125	10.6
	9,615	100.0	10,619	100.0

Loans itemised by guarantee are presented in the Notes to the Financial Statements under Loan receivables.

Varma's foreign-currency-denominated investments amount to EUR 26,856 (24,835) million, accounting for 55% (56%) of all investments. The investments' currency risk is partly hedged through currency derivatives. The open currency position amounted to EUR 12,919 (10,497) million on 31 December 2019.

Varma's largest individual corporate risk position is in Sampo Plc, the market value of which was EUR 904 (876) million on the closing date.

The table below shows how falls in equity prices and real estate values and increases in interest rates would affect return and solvency in the financial statements.

	Value 31 Dec 2019	Effect Share prices -30%	Effect Interest rates +100 bp	Effect Real estate -10%
Solvency capital, € million	11,646	6,679	11,143	11,205
% of technical provisions	130.8	118.8	129.5	129.7
in relation to solvency limit	1.8 times	1.3 times	1.7 times	1.7 times
Return on investments, %, 1 Jan–31 Dec 2019	12.0	-4.5	10.8	11.0

As regards the calculation of the solvency limit, the Board of Directors decides on the criteria concerning how indirect investments' risks are taken into account, the criteria for using risk category 18, and the criteria for calculating the duration of investments exposed to interest and credit margin risk.

Investment risk measurement and mitigation

The market risk of investments, mainly equities, constitutes the biggest risk relating to the return and solvency. The VaR (Value-at-Risk) figure, which measures the total risk of Varma's investments, stood at EUR 1,371 million (EUR 1,777 million) at year-end 2019. The figure indicates the greatest possible fall in the market value of the company's investment portfolio over a period of one month at a probability of 97.5%. The CVaR (Conditional Value at Risk) figure refers to expected losses exceeding VaR, and this figure amounted to EUR 1,635 (2,120) million.

The general security goals for investments are catered for by ensuring that the total risk caused by fluctuating portfolio returns remains within the risk-bearing capacity. The total portfolio risk in relation to the risk-bearing capacity is dynamically limited using an internal risk indicator defined in

the investment plan. The indicator is used to determine the maximum risk-management weight for listed equities. By determining the maximum risk level, the company strives to ensure disruption-free operation also after capital market shocks. Furthermore, investments are diversified in accordance with diversification objectives.

The maximum risk level is measured such that even after a 25% drop in the value of listed equity investments and certain hedge fund investments, the solvency capital still exceeds the minimum solvency capital (1/3 of the solvency limit) by at least the amount of the VaR and is, in any case, always at least at the solvency limit.

The different maximum limits of investments are presented as separate risk limits in the investment plan. The diversification of the investment portfolio is based on allocation that takes into account the return correlations of asset classes.

Investment risks can be abated and eliminated, for example,

- by diversifying investments by asset class and item,
- by analysing the investment portfolio and items,
- by avoiding risk concentrations,
- by limiting the amount of unlisted securities,
- through a securing guarantee policy,
- through careful valuation practices,
- by integrating assets and liabilities,
- by using derivatives,
- by applying adequate and on-time supervision and monitoring arrangements, and
- by minimising counterparty risks.

The risk limits and authorisations laid down in the investment plan are regularly monitored. In addition to analyses of investment markets, Varma monitors matters such as investment duration, credit rating and liquidity. In real estate investments, Varma pays special attention to technical and location risks, among others.

New investment instruments with return and risk profiles that are significantly different from the instruments contained in Varma's present portfolio are examined by the Investment Committee and are also presented to the Board of Directors before the investments are made.

Principles for using derivative contracts

Here we describe the principles applied to the use of derivative contracts and the risk management strategy for derivatives. The Board of Directors decides on the principles for the use of derivative contracts. In the investment

portfolio, derivative contracts are considered equal with their underlying instruments and are allocated to the asset class in question. Limits by asset class are examined in terms of the overall position, combining cash instruments and derivative instruments. The value change risk inherent in cash instruments and derivative contracts is made commensurable by converting derivative contracts mainly into delta-adjusted risk positions.

The main purposes for the use of derivatives are:

- currency hedging
- managing overall portfolio risk
- increasing or reducing equity risk through index derivatives
- reducing or increasing the fixed-income portfolio's interest risk (duration) through interest rate futures or swaps
- managing the fixed-income portfolio's credit risk through credit default swaps
- commodity and factor investing is mainly implemented through derivative instruments.

In terms of risk management, derivative contracts are classified in risk-decreasing and other than risk-decreasing derivatives. In the investment organisation, authorisations to use derivatives are laid down in the investment plan. They have been set in euro amounts by contract type and by underlying instrument, separately for risk-decreasing and other derivatives.

Operational risks

Operational risks entail

- a danger of loss,
- a threat to the continuity of operations, or
- a diminishing of trust in the company,

caused either by the company's internal processes or by unanticipated external events.

Operational risks are related to processes and methods, information systems, possible malpractice, property damage and staff competence.

The company makes every effort to eliminate any defects in its supervision systems that would permit unintentional or intentional errors or misuse concerning such matters as insurance or claims handling, investments, reporting, payment transactions, register details, data processing, division of work, partners' operations, or documentation.

Operational risks are charted on a regular basis. The potential impacts and likelihood of identified risks are assessed on a risk-specific basis, and the risks are linked to strategic aims and processes. Identified risks are compiled in a risk chart in which risks are classified on the basis of an overall evaluation and in accordance with their potential to threaten Varma's success and the goals approved by the Board of Directors. Overall consideration of the impacts of the risks and deciding on measures take place in accordance with Varma's standard planning and decision-making system. A continuity plan is drawn up for functions that may involve substantial risks. The preparation of the plan is at the discretion of the line management.

Strategic risks

Varma analysed its strategic risks in 2019 using a new model, in which risks were divided into risks relating to business development and the operating model, and risks relating to the operating environment.

The earnings-related pension system is based on insuring work carried out in Finland. Following a stretch of stronger growth, Finland's economy is entering a period of slower growth, and overall demand is expected to decline.

Finland's economic recovery has boosted employment, but the expected slower growth makes raising the employment rate more difficult. The labour market also faces issues caused by a mismatch between supply and demand. The period of strong economic growth improved public finances, but was not sufficient to bridge the sustainability gap. Public finance problems will be highlighted, as the ageing of the population increases pension and care expenditure.

The purpose of the pension reform, which took effect at the beginning of 2017, is to lengthen careers and strengthen the financial and social sustainability of the earnings-related pension system. The pension reform will also help close the sustainability gap in public finances. This requires longer careers. The application of the reformed pension legislation has gone smoothly.

The long-standing global economic growth is slowing down, but the fears of early 2019 over a steep economic downturn were never realised. Forecasts concerning economic performance have become more cautious. Concerns relate especially to geopolitical and trade policy tensions. 2019 was a strong year in the investment markets. The normalisation of monetary policies was interrupted when central banks responded to the economic uncertainty. The strong rise in asset values on the markets has continued for a long time. Market corrections cannot be ruled out. Varma's strong competence in the careful diversification of investment assets and investment risk management gives the company an edge in a challenging competitive environment.

Varma's preparation for unsettled and exceptional circumstances

Earnings-related pension institutions are under statutory obligation to ensure their tasks can be handled with minimum disruption, even under exceptional circumstances. According to the National Security Strategy, the pension and book entry systems, among others, are functions that must be secured.

Principal threat types and their concomitant special circumstances related to pension payments and funding include serious perturbations in the infrastructure required by the networked operating model, citizens' health and income security, and society's economic capacity. Due to the distributed management of pension cover, there is a lot of co-operation within the earnings-related pension system. This increases mutual dependency and vulnerability. The globalisation of information technology services and bank services creates challenges for contingency operations.

Contingency operations secure critical activities in exceptional circumstances and in serious disturbances within normal circumstances. Also, in exceptional circumstances or when threatened by them, Varma will fulfil its statutory and contractual obligations as comprehensively and for as long as possible. In co-operation with other operators, banks, authorities, and the emergency supply organisation, priority will be given to securing services connected with citizens' income security.

Varma has a recovery plan for situations where IT is disrupted and a contingency plan approved by the Board of Directors, which is

supplemented by detailed plans prepared by different functions. A contingency unit, which the managers of core functions belong to, coordinates the activities in possible contingencies.

The contingency unit is responsible for preparing the contingency plan, for preparing for unsettled situations, for preparing and maintaining other plans (such as the recovery plan and the security and rescue plan) and instructions based on it, for managing unsettled situations, for contingency actions, for building, maintaining and testing contingency systems, and for taking into account the experiences gained from exercises organised within the sector in the company's operations. The members of the contingency unit, in their own area of responsibility, take care of emergency planning, construction and testing of contingency systems, providing timely information and securing information storage.

Significant risks in exceptional circumstances include:

- the payment of pensions is jeopardised,
- the financing of pensions and liquidity management become more difficult,
- the implementation of processes during exceptional circumstances does not happen quickly enough,
- bank systems, investment trading systems or other societal infrastructures fail to work,
- the earnings-related pension systems, telecommunication lines or co-ordination within the sector fail to work
- our own IT applications or networks fail to work, stoppage of services provision,

- counterparty risks and the invalidity of contracts under exceptional circumstances, and
- risks related to the availability of data at the onset of a crisis.

Varma participates in operational exercises together with other pension insurance institutions, insurance companies, banks and financial operators.

Compliance

Compliance activities are an element of Varma's internal control. It refers to internal activities which aim to ensure compliance with laws, decrees and regulations that apply to Varma, as well as with internal guidelines and the decisions of governance bodies. The purpose of Compliance activities is to identify situations where Varma could be exposed to various legal risks, and to ensure sufficient controls to mitigate these risks. They also involve assessing the sufficiency of measures taken to prevent and rectify any compliance shortcomings. Compliance activities are headed by the Compliance officer, who reports on the activities to the Board of Directors and its Audit Committee.

Internal audit

Internal audit operates in accordance with the principles defined in the professional standards of internal audit. It comprises independent and objective assessment, assurance and consulting activities whose purpose is to support the organisation in

achieving its goals by producing assessments and development proposals concerning the status of risk management and other internal controls. The organisational status, tasks, responsibilities and powers of the internal audit are laid down in the instructions approved by the Board of Directors. The areas to be audited are set out in an annual audit plan, which is approved by the Board of Directors after it has been discussed by the Executive Group and the Audit Committee. The audit observations are reported to the company management, the Audit Committee and the Board of Directors. The internal audit is administratively subordinate to the CEO.

Supervision by authorities

In addition to laws and decrees, Varma's operations are governed by the instructions and regulations of the Financial Supervisory Authority. Varma provides the Financial Supervisory Authority with information and reports on a regular basis or as required. The supervising authority carries out appropriate inspections related to administration, solvency, investment operations and operational risks, among other things.

KEY FIGURES AND ANALYSES

33. Summary

31 Dec, € million	2019	2018	2017	2016	2015
Premiums written, € million	5,285.6	5,118.0	4,867.4	4,675.1	4,576.4
Pensions paid and other payments made, € million	5,623.0	5,404.1	5,247.8	5,004.7	4,834.6
Net investment income at fair value, € million	5,240.6	-902.2	3,342.7	1,952.7	1,681.8
Net return on invested capital, %	12.0	-2.0	7.8	4.7	4.2
Turnover, € million	7,828.1	5,383.2	8,707.7	6,793.2	4,748.5
Total operating expenses, € million	124.0	124.8	129.3	137.9	144.6
Total operating expenses of turnover, %	1.6	2.3	1.5	2.0	3.0
Operating expenses covered by the expense loading (% of TyEL and YEL payroll)	0.4	0.4	0.4	0.5	0.5
Total result, € million	2,197.5	-1,741.0	1,523.8	456.9	-163.6
Technical provisions, € million	38,608.0	36,521.4	36,696.2	33,501.3	31,865.6
Solvency capital, € million	11,646.3	9,618.6	11,534.4	10,199.5	9,956.1
in relation to solvency limit	1.8	1.6	1.7	1.9	1.9
Pension assets, € million ³⁾	49,444.7	44,636.0	45,947.7	43,127.2	41,628.5
of technical provisions, %	130.8	127.5	133.5	130.9	131.4
Transfer to client bonuses of TyEL payroll, %	0.81	0.75	0.83	0.64	0.63
TyEL payroll, € million	21,083.9	20,384.8	19,366.7	18,834.8	18,367.4
YEL payroll, € million	811.5	797.0	802.0	830.6	870.8
TyEL policies	27,590	26,030	25,575	26,120	27,150
TyEL insured persons	504,131	523,270	501,320	493,890	486,960
YEL policies	37,800	36,700	35,900	36,000	37,380
Pensioners	343,700	343,400	342,600	340,100	337,100

34. Performance analysis

31 Dec, € million	2019	2018	2017	2016	2015
Sources of profit					
Technical underwriting result	-1.9	22.9	33.8	-37.8	22.9
Investment surplus at fair value	2,138.7	-1,815.7	1,453.2	441.5	-220.0
+ Net investment income at fair value	5,240.6	-902.3	3,342.7	1,952.7	1,681.9
- Return requirement on technical provisions	-3,101.9	-913.4	-1,889.5	-1,511.2	-1,901.9
Loading profit	52.9	55.9	44.7	39.0	36.1
Other result	7.9	-4.1	-7.9	14.3	-2.6
Total result	2,197.5	-1,741.0	1,523.8	456.9	-163.6
Appropriation of profit					
Change in solvency	2,026.5	-1,894.0	1,362.8	335.3	-278.6
Change in equalisation provision included in the solvency capital	0.0	0.0	0.0	-38.5	22.9
Change in provision for future bonuses	-697.4	-757.1	1,834.8	504.4	-1,843.6
Change in difference between fair value and book value	2,717.2	-1,143.7	-477.9	-136.9	1,535.1
Profit for the financial year	6.7	6.8	5.9	6.2	7.1
Other change in the equalisation provision	0.0	0.0	0.0	0.7	0.0
Transfer to client bonuses	171.0	153.0	161.0	121.0	115.0
Total	2,197.5	-1,741.0	1,523.8	456.9	-163.6

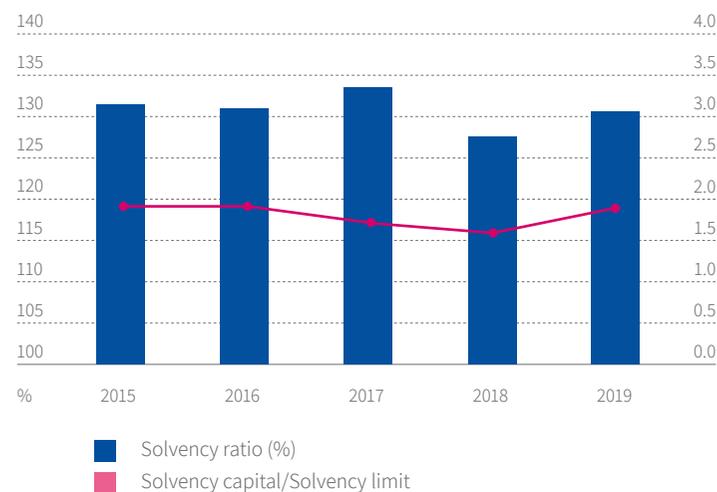
35. Solvency

Solvency capital and limits	2019	2018	2017	2016	2015
Solvency limit, € million	6,633.5	5,972.8	6,819.8	5,454.7	5,348.3
Maximum amount of solvency capital, € million	19,900.5	17,918.5	20,459.4	21,819.0	21,393.2
Solvency capital, € million	11,646.3	9,618.5	11,534.4	10,199.5	9,956.1
Solvency capital (solvency ratio), %	130.8	127.5	133.5	130.9	131.4
Solvency capital/Solvency limit, %	1.8	1.6	1.7	1.9	1.9

Solvency capital and limits



Solvency capital/Solvency limit



36. Investment allocation at fair value

	Market value 2019 € mill.	%	Market value 2018 € mill.	%	Risk position 2019 € mill.	%	Risk position 2018 % ¹	Risk position 2017 %	Risk position 2016 %	Risk position 2015 %
Fixed-income investments	12,957.1	26.6	13,522.1	30.7	13,051.9	26.8	24.0	27.7	42.2	29.7
Loan receivables	2,314.8	4.8	1,817.5	4.1	2,314.8	4.8	4.1	3.2	3.3	3.3
Bonds	9,563.0	19.6	10,624.5	24.1	10,692.6	22.0	20.5	23.1	29.8	21.2
Other money-market instruments and deposits	1,079.3	2.2	1,080.1	2.5	44.5	0.1	-0.6	1.4	9.0	5.2
Equity investments	22,485.8	46.2	17,915.8	40.7	22,457.3	46.1	41.4	45.6	43.2	44.7
Listed equities	17,251.7	35.4	13,407.0	30.5	17,223.2	35.4	31.2	36.9	34.5	36.2
Private equities	4,944.6	10.2	4,254.5	9.7	4,944.6	10.2	9.7	6.1	6.5	6.3
Unlisted equities	289.5	0.6	254.3	0.6	289.5	0.6	0.6	2.6	2.2	2.2
Real estate investments	4,413.2	9.1	3,878.8	8.8	4,413.2	9.1	8.8	7.9	8.5	9.5
Direct real estates	2,791.6	5.7	2,895.3	6.6	2,791.6	5.7	6.6	6.2	6.8	8.0
Real estate funds	1,621.6	3.3	983.5	2.2	1,621.6	3.3	2.2	1.8	1.7	1.4
Other investments	8,852.8	18.2	8,698.6	19.8	9,548.4	19.6	22.8	19.6	17.1	16.9
Hedge funds	8,857.4	18.2	8,703.4	19.8	8,857.4	18.2	19.8	17.4	16.8	16.1
Commodities	0.0	0.0	-7.7	0.0	0.0	0.0	0.1	0.4	0.3	0.9
Other investments	-4.7	0.0	2.9	0.0	690.9	1.4	3.0	1.9	0.0	-0.1
Investments	48,708.9	100.0	44,015.2	100.0	49,470.8	101.6	97.0	100.8	111.0	100.8
Impact of derivatives					-762.0	-1.6	3.0	-0.8	-11.0	-0.8
Investments at fair value, total	48,708.9	100.0	44,015.2	100.0	48,708.9	100.0	100.0	100.0	100.0	100.0
Modified duration of the bond portfolio		4.6								

37. Investment return breakdown and result

	Net return on invested capital, market value 2019 € million	Invested capital 2019 € million	Return on invested capital 2019 %	Return on invested capital 2018 %	Return on invested capital 2017 %	Return on invested capital 2016 %	Return on invested capital 2015 %
Return on invested capital, €/%							
Fixed-income investments	580.1	12,840.1	4.5	-1.8	3.7	4.2	-0.4
Loan receivables	78.1	1,947.9	4.0	3.7	2.2	4.2	2.4
Bonds	498.3	9,834.0	5.1	-2.9	5.4	5.3	-0.9
Other money-market instruments and deposits	3.8	1,058.2	0.4	-0.1	-1.9	-0.4	0.5
Equity investments	4,130.1	18,124.1	22.8	-3.6	11.4	6.4	8.8
Listed equities	3,429.5	13,520.8	25.4	-8.3	11.6	4.5	8.0
Private equities	658.4	4,353.8	15.1	17.5	7.9	11.2	7.8
Unlisted equities	42.2	249.6	16.9	3.8	18.5	23.7	21.2
Real estate investments	163.7	4,012.1	4.1	5.5	4.9	-0.9	3.3
Direct real estates	111.8	2,902.6	3.9	3.9	2.9	-2.6	2.3
Real estate funds	51.9	1,109.5	4.7	10.6	12.0	6.8	9.9
Other investments	396.0	8,732.8	4.5	-1.4	9.3	5.3	3.5
Hedge funds	436.4	8,723.9	5.0	1.6	8.5	5.6	3.9
Commodities	-6.3	-1.2					
Other investments	-34.1	10.2					
Investments	5,270.0	43,709.2	12.1	-1.9	7.8	4.8	4.3
Unallocated income, costs and operating expenses from investment activities	-29.4	15.5					
Net investment income at fair value	5,240.6	43,724.6	12.0	-2.0	7.8	4.7	4.2

38. Loading profit

31 Dec, € million	2019	2018	2017	2016	2015
Expense loading components included in contributions	131.4	133.1	127.6	132.6	132.0
Components available to cover operating expenses arising from compensation decisions	7.0	6.9	6.1	6.7	6.8
Other income	0.5	1.2	0.4	0.3	0.9
Total loading income	138.9	141.2	134.1	139.6	139.8
Operating expenses covered by loading income ¹⁾	-86.1	-85.4	-89.4	-100.6	-103.7
Total operating expenses	-86.1	-85.4	-89.4	-100.6	-103.7
Loading profit	52.9	55.9	44.7	39.0	36.1
Operating expenses in relation to loading income, %	62	60	67	72	74

¹⁾ Excluding operating expenses related to investments, costs covered by the disability risk administrative cost component and statutory charges.

39. Workability maintenance expenses

31 Dec, € million	2019	2018	2017	2016	2015
Premiums written; the administrative cost component of the disability risk	6.4	6.3	5.9	5.7	5.6
Expenses covered by the administrative cost component of the disability risk, entered under claims incurred, %	6.4	6.3	5.9	5.7	6.1
Expenses arising from the management of the disability risk, entered under operating expenses and covered by the expense loading ²⁾	0.2	0.1	4.6	8.2	11.1
Expenses covered by the administrative cost component of workability maintenance/The administrative cost component of the disability risk, %	100.0	100.0	100.0	99.7	109.5

²⁾ As of 2016, does not include personnel expenses related to the management of the disability risk of the company's own personnel.

40. Technical underwriting result

31 Dec, € million	2019	2018	2017	2016	2015
Premium income from underwriting business under the company's own account	956.5	945.0	759.9	655.0	691.7
Interest rate on the technical provisions of the underwriting business under the company's own account	947.9	892.3	839.3	812.1	806.8
Underwriting income	1,904.4	1,837.3	1,599.2	1,467.1	1,498.4
Pensions paid out of funds	1,320.8	1,227.7	1,137.2	1,087.4	1,023.5
Contribution losses	10.8	14.1	10.4	18.5	16.3
Change in the technical provisions of the underwriting business under the company's own account	574.8	572.7	417.9	399.0	435.7
Total claims incurred	1,906.3	1,814.4	1,565.4	1,504.9	1,475.5
Technical underwriting result	-1.9	22.9	33.8	-37.8	22.9

DISTRIBUTION OF PROFIT

Distributable profits as presented in the notes to the financial statements 124,565,106.42 euros

The Board of Directors proposes that the profit for the year be distributed as follows: 6,686,818.83 euros

to be transferred to the contingency fund (optional reserve) 5,300,000.00 euros

to be paid as interest on guarantee capital 611,984.94 euros

to be carried over on the Profit and Loss Account 774,833.89 euros

Helsinki, 13 February 2020

Jari Paasikivi, Chairman of the Board

Antti Palola

Kai Telanne

Riku Aalto

Eila Annala

Rolf Jansson

Ari Kaperi

Jyri Luomakoski

Petri Niemisvirta

Pekka Piispanen

Saana Siekkinen

Mari Walls

Risto Murto, President & CEO

AUDITOR'S REPORT

To the Annual General Meeting of Varma Mutual Pension Insurance Company

Report on the Audit of Financial Statements

Opinion

We have audited the financial statements of Varma Mutual Pension Insurance Company (business identity code 0533297-9) for the year ended 31 December, 2019. The financial statements comprise the balance sheet, income statement, cash flow statement and notes for the group as well as for the parent company.

In our opinion, the financial statements give a true and fair view of the 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 Audit Committee.

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 company 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 2.2 to the consolidated 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

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.

As for the financial statements there are no significant risks of material misstatements referred to in Article 10 section 2c of regulation (EU) 537/2014.

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.

In preparing the financial statements, the Board of Directors and the Managing Director are responsible for assessing the company'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 company or cease operations, or there is no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of 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 company'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 company'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 company 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.

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 March 15, 2018, and our appointment represents a total period of uninterrupted engagement of two 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.

Opinions based on assignment of the annual general meeting

We support the adoption of the financial statements. The proposal by the Board of Directors regarding the treatment of distributable funds is in compliance with the Finnish Insurance Companies Act. We support that the members of the Supervisory Board and the Board of Directors and the Managing Director be discharged from liability for the financial period audited by us.

Helsinki, February 13, 2020

Antti Suominen

Authorized Public Accountant

Robert Söderlund

Authorized Public Accountant

VARMA

www.varma.fi/annualreport