

# VARMA

REPORT OF THE BOARD OF  
DIRECTORS AND FINANCIAL  
STATEMENTS 2018



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# REPORT OF THE BOARD OF DIRECTORS 2018

## The economic operating environment

### The economic year 2018 ended in a climate of restlessness

Risks in the economic operating environment intensified towards the end of the year, and there was clear restlessness in the markets. The global economy has topped out and growth is expected to slow down. Growth persisted for a long time in the cross-pressures of increasing political risks. The real economy indicators are partially mixed, and growth is expected to slow down, but there are no signs of a sharp decline in economic growth in sight.

In the United States, strong economic growth continued. Tax cuts boosted the economy, and a strong improvement in the employment rate supported private consumption growth. At the same time, trade policy moves have influenced businesses' future plans and earnings expectations. China's economic growth is clearly slowing down.

The eurozone outlook became more subdued, and growth is expected to decline. The overall picture is influenced especially by the unresolved Brexit situation, the riots in France and their impact on public finances, and the European Commission's flexibility on Italy's financial policy.

The US central bank, the Fed, hiked its benchmark rate four times during the year. The next steps are expected to be more conservative. The European Central Bank also normalised its monetary policy and announced that it would be winding down its bond purchase programme. The central banks are making

changes to their monetary policy stance in demanding circumstances, and market reactions are strong. The basic monetary policy setup in the eurozone continues to promote economic growth.

### Finland's economy has topped out

Finland's economy gained momentum late compared to our competitor countries. In 2018, the economy was still going strong and employment improved substantially. Late in the year, the employment rate achieved the 72% target set by the government. The labour market was characterised by a mismatch between demand and supply and difficulties in finding competent workforce.

Finland is a small, open economy, whose prosperity and potential to finance well-being are largely dependent on economic growth. Growth is expected to continue, although at a slower pace, and the employment level is set to improve further. In the longer term, the low investment rate and weak development of productivity undermine the economy's productive potential, the strengthening of which is vital also for the financing of earnings-related pensions.

The state of public finances has markedly improved, thanks to faster economic growth and adjustment measures. In the coming years, the increasing age-related costs will allow less latitude, and the window for getting prepared will close.

Statistics Finland published a new population projection in November. The birth rate has been declining for several years in a row.

Changes in the expected development of the population structure have weakened the latest estimates on the sustainability gap in public finances gap and will also be reflected in the earnings-related pension system in the long term.

### Earnings-related pension system

The recovery of employment and the sustained positive trend in the capital markets support the financing of pensions, a moderate level of pension contributions and the long-term sustainability of the earnings-related pension system. Longer careers are needed to secure the financing of pensions and sustainability of public finances. The number of new disability pensions increased over the year. Varma strives for longer careers by co-operating with customers in workability management. The importance of work productivity and competence will be highlighted in the future as the population ages and the labour supply declines.

During 2018, Varma prepared for the introduction of the Incomes Register together with the earnings-related pension sector, the authorities and its customers. The extensive project required changes in insurance and close co-operation between different parties. The objective of the national Incomes Register is to reduce the administrative workload, create cost savings and improve efficiency.

During the year under review, the earnings-related pension system was investigated to assess the possibilities of integrating the municipal pension system with the private earnings-related pension system.

## Pension contributions and return requirement on technical provisions

In 2018, 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 6.35% of their pay, while the rate for employees aged 53–62 was 7.85%. 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 1.31% on average in 2018. The return on equity component in 2018 was -8.42%. The technical rate of interest, which is used to determine the interest rate of the oldest premium loans and a number of other items, was 5.50% throughout the year. The insurance contribution interest rate, used to calculate pension contributions, stood at 2.00% throughout the year.

## Varma's financial trends

Varma's total result at fair value was EUR -1,741 (1,524) million. The total quarterly result varied during the financial year, such that the third-quarter result was the strongest and the fourth-quarter result the weakest.

Varma's solvency declined during 2018 by EUR 1,916 million, and at the end of the year, solvency capital amounted to EUR 9,619 (11,534) million. Varma's pension assets in relation to technical provisions (solvency ratio)

were 127.5% (133.5%). Solvency capital was at a secure level, i.e. at 1.6 (1.7) 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 -902 (3,343) million, which represents -2.0% (7.8%) of the invested capital. The interest credited on the technical provisions was EUR 913 (1,890) million. Thus, the investment result for 2018 totalled EUR -1,816 (1,453) million. Operating expenses were 40% (33%) lower than the expense loading included in insurance contributions, and the loading profit stood at EUR 56 (45) million. The underwriting result was EUR 23 (34) million and other result was EUR -4 (-8) million.

At the end of 2018, EUR 153 (161) million was transferred to the provision for current bonuses reserved for client bonuses. The transfer represents roughly 0.8% (0.8%) of the estimated payroll of the insured.

The composition of client bonuses was changed as of the beginning of 2017, and client bonuses to be paid to Varma's customers for 2018 include the full loading profit. In addition to this, 1% of the solvency capital is distributed as a part of the client bonuses. Varma's strong solvency and excellent operational efficiency benefit its clients in full.

The TyEL payroll of those insured by Varma totalled roughly EUR 20.4 (19.4) billion in 2018. The payroll is estimated to have grown by 5.3%. Varma's premiums written totalled EUR 5,118 (4,867) million, of which TyEL insurance accounted for EUR 4,935 (4,683) million and YEL insurance for EUR 183 (184) million.

At the end of the financial year, 559,981 (537,241) individuals were insured by Varma. At

the end of 2018, the number of valid insurance policies totalled 62,745 (61,493), covering 36,715 (35,918) self-employed persons and 523,266 (501,323) employees.

During 2018, a total of 2,832 (2,780) new TyEL insurance policies and 5,983 (5,862) YEL insurance policies came into force at Varma.

During 2018, EUR 5 million in premiums written were transferred to Varma from other earnings-related pension companies, and EUR 60 million in new TyEL policies were sold. Varma did especially well in the small company segment.

Earnings and employment notifications received during the year totalled 2,451,838 (2,113,398), of which 97% (96%) were received electronically.

Varma provides policyholders with services through its own service channels and through the service networks of If P&C Insurance and the Nordea Group.

In 2018, a total gross amount of EUR 5,668 (5,544) million in pensions was paid out. The number of pension recipients increased, and at year-end, Varma was paying pensions to 343,400 (342,600) people.

A total of 22,476 (24,507) new pension decisions were made during the year. The number of new pension decisions decreased 8.3% compared to 2017, and the total number of all pension decisions was 2.9% higher than in 2017. Old-age pension decisions numbered 11,137 (12,801), disability benefit decisions 6,024 (5,116) and partial early old-age pension decisions 1,967 (2,705). Continuation decisions on temporary pensions totalled 4,488 (4,390), and other decisions numbered 24,093 (17,305). 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 33.0% (33.4%). Pension applications made online accounted for 50% (54%) of all new pension applications.

The number of disability pension applications was up 10% compared to the previous financial year. This is believed to be due to hidden disability risks detected as a result of the improved employment situation, the application procedures of the active model and the increase in the retirement age. Varma's total processing time for pension applications in 2018 was 31 days, which was 9 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 76% 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 workability risk to rehabilitation. A larger share of Varma's customers use rehabilitation to return to working life than retire on disability pension. Throughout 2018 Varma assisted its client companies in managing personnel risks through client-oriented co-ordination of workability management, rehabilitation services and pension decision services in order to support the management of pension costs and longer careers.

	31 Dec 2018	31 Dec 2017	Change
<b>Number of insured</b>			
TyEL	523,266	501,323	21,943
YEL	36,715	35,918	797
Total	559,981	537,241	22,740
<b>Number of insurance policies</b>			
TyEL	26,030	25,575	455
<b>Number of pensioners</b>			
Part-time pension	377	937	-560
Partial early old-age pension	3,585	2,430	1,155
Survivors' pension	50,350	50,713	-363
Disability pension	22,646	24,039	-1,393
Old-age pension	253,595	251,023	2,572
Early old-age pension	12,859	13,439	-580
Years-of-service pension	2	0	2
Total <sup>1)</sup>	343,414	342,581	833
<sup>1)</sup> Those receiving YEL pension	29,431	29,655	-224
Those receiving TEL/YEL supplementary pension	43,442	43,715	-273

Varma also contributed to the costs of customers' workability management projects 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, 91.1% were calculated online. Pensions can also be applied for, and the status of the application can be tracked, online. A total of 14,135 (13,637) applications were submitted electronically during the year.

Varma sends a pension record to the insured once every three years. A total of 197,404 (230,000) such records were sent out in 2018. The record shows information on earnings that apply to pension as well as the pension that has accrued until the end of the preceding year. The pension record is also available via Varma's eServices, and the use of this service has increased significantly.

### Technical provisions

Varma's technical provisions declined 0.5% (increased 9.5%) to EUR 36,521 (36,696) million. They contain a provision of EUR 154 (162) million for current bonuses reserved for client bonuses, a provision of EUR 1,486 (2,265) million for future bonuses contained in the solvency capital, and EUR -255 (769) million in an equity-linked provision for current and future bonuses.

### Changes in insurance portfolio

Varma received part of the insurance portfolio of a pension fund during the financial year. The

amount of pension liabilities transferred to Varma totalled EUR 0.1 million.

### Investments

Varma's investment returns for 2018 were weak, due to increased market turbulence in the last quarter of the year. The return on investments stood at -2.0% (7.8%), and at the end of December the value of investments amounted to EUR 44,015 (45,409) million. As a result of this, Varma's solvency ratio weakened during the year to 127.5% (133.5%).

The weaker global economic outlook and increased political uncertainty led to a very weak performance in the investment market towards the end of the year. The year under review was the weakest in the global equity markets since the financial crisis, and the performance in December the weakest since the launch of the MSCI All Country World Index in 1988. Unlike earlier in the year, the end-of-the-year turbulence also hit the US stock markets hard, with share prices dropping over 9% in December. Long-term government bond rates started to fall clearly at the end of the year, although the Fed continued to hike its benchmark interest rates. The eurozone interest rates also fell, and the market's faith in the ECB's ability to raise benchmark rates in the environment of slower economic growth was tested. In the eurozone, the interest rate difference between Italy and Germany remained high, although the difference became significantly lower at the end of the year. In the corporate bond market, the risk premiums for higher risk corporate bonds experienced a clear upswing in the wake of the equity markets, reflecting not only a liquidity squeeze but also fears of a major slowdown in economic growth.

The weak and at times imbalanced market development has made asset allocation challenging. The extremely low interest rate level and the high hedging costs for dollar-denominated investments also cut the return potential of the fixed-income investments. However, diversification especially in unlisted investments has limited the risks resulting from volatility in the equity and fixed income markets, although the plummeting equity markets and the increase in corporate bond risk premiums created pressure on the return development of unlisted equities. In Varma's investment allocation, the weight of listed equities was decreased further in the fourth quarter.

The return on Varma's investments was weak in the bear market environment of the year. Private equity investments, real estate and hedge funds generated the strongest investment returns in 2018, although hedge funds also were negatively affected by the year-end market turbulence. Fixed income investments suffered from widened credit risk premiums, the steep slide of emerging market currencies and monetary policy normalisation, and the returns were negative. Of individual investments, low-risk corporate bonds performed strongly towards the end of the year. The U.S. dollar gained clear momentum against most currencies during the year. At the end of the year, the average nominal investment return over five years was 4.3%, and over ten years 6.0%. The corresponding real returns were 3.7% and 4.8%.

The return on fixed-income investments was negative and stood at -1.8% (3.7%). The weak result was due to weaker growth outlook, increased political uncertainty, and tightened dollar liquidity. These weakened emerging countries' currencies and raised the risk

premiums of lower credit rating bonds. The interest rates for eurozone government bonds became differentiated as the year progressed. The long-term rates for Germany, which is seen as a safe haven, fell to a near-zero level, while Italy's rates remained clearly higher, reflecting concerns over the country's debt sustainability. The eurozone money market rates remained negative, as faith in the ECB's ability to normalise its monetary policy weakened. The return on the loan portfolio was 3.7% (2.2%), on public sector bonds -4.2% (4.0%), on other corporate bonds -2.0% (6.2%), and on other money-market instruments -0.1% (-1.9%).

The global equity markets performed very poorly during the year, and many equity indices showed a two-figure fall. There was strong turbulence in the equity market already early in the year, but by the third quarter, following a correction, the returns were back on an upward trajectory. There were, however, major differences between geographical areas. This changed in the last quarter, which was exceptionally weak. Finnish equities generated somewhat stronger returns than the rest of Europe, but as a whole, returns on equity investments were clearly negative. Listed equities generated a return of -8.3% (11.6%). Of all the asset classes, private equity investments generated the highest returns during the year at 17.5% (7.9%), while unlisted equity investments yielded 3.8% (18.5%).

The return on real estate investments was 5.5% (4.9%). Direct real-estate investments yielded a return of 3.9% (2.9%) and real-estate investment funds 10.6% (12.0%). Rental activity was at a high level, and the portfolio's occupancy rate was excellent. During the year, the real estate portfolio was further developed through transactions, new development projects in Finland and investments abroad. For

example, the construction project of the Uusikumpu school in Espoo was started during the year.

The return on other investments remained negative, at -1.4% (9.3%). Hedge funds were effective in diversifying the equity and fixed-income market risk, yielding a return of 1.6% (8.5%), while alternative risk premium investments, included in other investments, were negatively influenced by the simultaneous fall in the equity, fixed-income and credit risk markets and the rise in market volatility at the end of the year.

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 1,777 (1,218) 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 late 2018, and the policy is available on Varma's website. In 2018, Varma actively participated in the Annual General Meetings of the domestic companies in which it owned shares and in the work of 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 60% (67%) of the expense loading, included in the pension insurance contributions, to cover operating expenses. Controlling operating expenses is a key objective 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 3%, totalling EUR 125 (129) million.

Varma is actively involved in the development and administration of the pension

	2018	2017	2016	2015	2014
Average number of personnel	532	524	540	549	552
Salaries and remunerations, EUR million	40.1	39.3	36.0	39.6	40.1

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 employees in 2018.

At year-end, Varma's personnel were distributed as follows: pension services 28%, insurance and actuary services 16%, customer service departments 12%, investment operations 13%, and other functions 31%.

Varma introduced a revamped job requirements system during the financial year, and the company's work culture was developed together with personnel through different projects.

### Group companies and associates

At the end of 2018, the Varma Group comprised 128 (139) subsidiaries and 17 (17) associates. The most important subsidiaries and associates are Tieto Esy Ltd (50.1%), NV Kiinteistösi joitus 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 15 March 2018. 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 2017.

The new members elected to the Supervisory Board are Eero Broman, Jukka Erlund, Kari Kauniskangas, Pekka Kuusniemi and Petri Vanhala.

Kari Jordan (Chairman), Saana Siekkinen (Deputy Chairman), Satu Wrede (Deputy Chairman), Juri Aaltonen, Petri Castrén, Erkki Etola, Stig Gustavson, Olavi Huhtala, Juha Häkkinen, Jukka Jäämaa, Niina Koivuniemi, Ville Kopra, Tapio Korpeinen, Timo Koskinen, Päivi Leiwo, Olli Luukkainen, Jari Suominen, Leena Vainiomäki, Jorma Vehviläinen, Christoph Vitzthum and Anssi Vuorio continued as Supervisory Board members. Göran Åberg resigned from the Supervisory Board on 30 November 2018 and Jari Latvanen on 11 December 2018.

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

In 2018, Varma's Board of Directors was composed of Jari Paasikivi (Chairman), Antti Palola (Deputy Chairman), Kai Telanne (Deputy Chairman), Riku Aalto, Eila Annala (as of 7 March 2018), Johanna Ikäheimo, Rolf Jansson, Ari Kaperi, Casimir Lindholm (until 2 March 2018), Jyri Luomakoski, Petri Niemisvirta, Ilkka Oksala and Pekka Piispanen, and deputy members Eila Annala (until 7 March 2018), Eija Hietanen, Liisa Leino and Risto Penttinen (as of 7 March 2018).

At its meeting on 18 December 2018, Varma's Board of Directors re-elected Jari Paasikivi as Chairman, and Antti Palola and Kai Telanne as Deputy Chairmen of the Board, effective 1 January 2019.

An up-to-date Corporate Governance Statement based on the recommendations of the Finnish Corporate Governance Code is presented on Varma's website. Varma publishes quarterly interim reports with the aim of ensuring transparent financial reporting that conforms to best practices.

### 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 risks related to Varma's result and solvency are primarily affected by the result of investment activities. The most important operative risk concerns IT systems, which have a key role particularly in the processing of pensions and insurance and in the networked operating environment of the pension system.

In the earnings-related pension system, the liquidity risk is manageable, as pension expenditure can be accurately forecast and investments are strongly focussed on liquid instruments. Varma's insurance business risks, which are minor, are linked to the sufficiency of the insurance contributions collect-

ed and the technical provisions accumulated from them in relation to the pensions that are the company's responsibility.

Varma's investment plan determines 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. The basic allocation laid down in the investment plan also lays down the basic level for the total portfolio risk. Deviations from the basic allocation are allowed within defined limits. The maximum risk level is measured so 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 by at least the amount of the VaR and is, in any case, always at least at the solvency limit. The diversification of the investment portfolio is based on allocation that takes into account the return correlations of asset classes. Risks are managed by, for example, diversifying investments by asset class and item, by analysing the investment portfolio and items, by avoiding risk concentrations, by securing guarantee policy, through careful valuation practice, by using derivatives, and by applying a supervision and follow-up system.

With the introduction of the national Incomes Register at the beginning of 2019, earnings on which insurance contributions are based are now reported in a centralised manner to a system maintained by Tax

Administration. Operators in the earnings-related pensions sector also receive the information required for insurance through centralised systems shared by the sector. The new operating model introduced new operative risks, which Varma has prepared for as part of the system reforms.

The defined-benefit nature of earnings-related pension provides security and financial predictability. Securing the pension benefits of the young and future generations strengthens the future of the earnings-related pension system. Agreeing on the contribution level until the end of this decade is an important stabilising factor for companies in the current challenging economic situation. Due to the agreed benefit adjustments, balancing the financing of pensions with a reasonable cost burden is possible. The increase in the retirement age will facilitate financing in the longer term.

More information about insurance, investment, operative and other risks, as well as related quantitative data, is provided in the notes to Varma's financial statements.

### Responsibility

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

Varma has assessed its CSR 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 CSR 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. The report will be published in mid-March.

### Report on non-financial information

#### Business model description

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

The key policies guiding Varma's responsible business operations are the Corporate Social Responsibility 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 and promoting our customers' workability. In recent years, 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 37 days in 2017 to 31 days in 2018. This is 9 days shorter than the average for the sector.

Varma's goal is to lengthen the careers of its client companies' employees and reduce disability pensions by developing workability management and offering effective rehabilitation. In 2018, the average disability pension contribution category of Varma's client companies was 3.7 (3.7). Varma's clients are happy with our workability management services, and the willingness to recommend Varma is at a high level: the NPS score, which measures the likelihood of a customer recommending the company, was 62 (65). Of Varma's vocational rehabilitation customers, 76%, i.e. 1,760 people, returned to working life during the year.

During the financial year, Varma rejected 33.0% (33.4%) of new disability pension applications. The rejection rate for all earnings-related pension companies was 31.5% (33.7%). The Pension Appeal Board changed Varma's disability pension decisions in 13.9% (13.1) of the cases it handled. The corresponding rate for the entire private earnings-related pension sector was 13.2% (14.1).

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. The PeoplePower Index, which measures Varma employees' satisfaction and engagement, stood at 72.2 (71.4), which is a good level.

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 2018, Varma focused on reforming the job requirements system, developing the work culture, and improving equality and diversity.

### Environmental responsibility and mitigation of 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.

In 2016, Varma determined the carbon footprint of its investments and drew up a climate policy, which sets targets for carbon footprint reduction in direct investments by asset class and states that the portfolio will be developed in line with the target of two degrees Celsius agreed on at the Paris climate conference.

In 2018, the carbon footprint of Varma's listed equity investments in relation to net sales declined 17% from the baseline of 2015 and was 27% lower than Varma's benchmark index. The carbon footprint of Varma's listed corporate bond investments in relation to net sales was 28% lower than in 2015 and 47% lower than Varma's benchmark index. The CO<sub>2</sub> footprint of real estate investment was 17% lower per gross square metre than in 2015.

### Climate risk management and reporting

In 2018, Varma did well in an international comparison which assessed pension funds' approach to climate-related risks and opportunities. Varma ranked fifth in Asset Owners Disclosure Project's (AODP) climate index, which included the world's 100 largest global pension funds.

Varma constantly analyses the financial risks and opportunities brought by climate change. Varma reports on business impacts caused by climate change in accordance

with the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) for the first time in its 2018 CSR report. Varma's TCFD reporting will be developed and expanded in 2019.

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

Varma has excluded investments in companies that rely on coal- or lignite-based operations for more than 30% of their net sales. Varma has also identified industries with higher environmental, social and governance risks, i.e. where there is a need for enhanced ESG screening. More comprehensive ESG monitoring and analysis concerns, for example, industries that have a high exposure to climate risks.

From the perspective of carbon intensity, Varma has identified the oil & gas industry, electricity & heat production, and the automotive, mining, concrete and transport industries as industries that are significantly exposed to the climate risk. In 2018, Varma looked into the proportion of these industries in listed equity and fixed-income investments. At the end of 2018, the total share of high-risk industries in the analysed asset classes was smaller than in the global benchmark index. In future, Varma will regularly monitor the weight of industries exposed to climate risks in its investments and expand the high-risk industry analysis to other asset classes.

### Analysing climate risks in real estate investments

Varma also performed a climate risk analysis

for direct real estate investments in autumn 2018. Of the real property directly owned by Varma, 70% is located in the Helsinki metropolitan area. This means that 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. The results show that the risk of a sea flood is low. By 2100, only five Varma-owned real estate sites are exposed to risk, when examined at a frequency of 1/1000 years. Varma takes the sea flood risk into account especially in new development projects and when purchasing new buildings.

### Environmental impacts of our own operations and the supply chain

The environmental impacts of Varma's own operations are controlled using WWF's Green Office system, which was certified in 2016. 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 34% lower compared to the 2015 baseline.

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 its Code of Conduct, Varma is committed to operating on market terms, combating the grey economy and bribery, and responsible investment principles. 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 own operations do not 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.

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.

**Responsible supply chain management**

Varma has analysed its supply chain in order to identify responsibility matters, and determined the responsibility requirements which are contained in the Supplier Code of Conduct. The premise is that Varma expects its direct service providers to commit to the responsibility 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.

The Supplier Code of Conduct is attached to all new contracts. The first tier of Varma's supply chain mainly covers Finland alone: of all purchases made in 2018, Finnish service and goods providers accounted for 98.8% (99.1%). Main purchases relate to construction activities, the real estate business, and IT services.

EcoVadis, an international corporate social responsibility assessment specialist, awarded Varma the CSR Rating Gold in 2018. Varma's CSR practices were rated as excellent, with its overall score in the top 5% of the 45,000 companies analysed. Suppliers of goods and services were assessed on their sustainability performance in terms of environment, labour practices, fair business practices and sustainable procurement.

Evaluation of investees' responsibility  
 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, for example, respecting 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.

The review of compliance with standards, performed in October 2018, covered all of Varma's direct equity investments in listed companies, direct listed corporate bonds and active equity funds. The review covered 34% of Varma's investment portfolio. At the end of the year, listed equity investments and listed corporate bond investments included one company with a confirmed environmental violation. Varma is involved in a class action lawsuit against the company in question.

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.

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.

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 2018, fifteen buildings owned by Varma were granted BREEAM In-Use environmental certification, among them shopping centres, a spa hotel and office buildings. At year-end 2018, a total of 38 of Varma's real properties had environmental certification, making up 34% of the real estate base under our direct ownership.

**Outlook**

Following a long period of global economic growth, the growth can be expected to slow down, especially due to the impact of China and the eurozone. We expect the market situation to remain challenging. Faith in central banks' ability to normalise their monetary policies is being tested. Political risks show no signs of subsiding. The elections to the European Parliament will be held in the spring, and the UK's difficult Brexit process continues.

**Return on investments**



**Solvency**



**Client bonuses**



**Efficiency**



Finland's economic performance has been good in recent years, and employment has shown strong improvement. Despite the weaker growth outlook, employment is expected to continue improving. In the longer term, the sustainability of public finances depends on continuing with structural reforms in areas that create conditions for growth, improve employment and strengthen public finances.

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

# FINANCIAL STATEMENTS 31 DEC 2018

## Income statement

1 Jan-31 Dec, € million	Note	Parent company 2018	Parent company 2017	Group 2018	Group 2017
<b>Technical account</b>					
Premiums written	1	5,118.0	4,867.4	5,118.0	4,867.4
Investment income	3	5,720.3	7,072.8	5,694.7	7,052.4
Claims incurred					
Claims paid	2	-5,438.4	-5,284.9	-5,438.4	-5,284.9
Total change in provision for claims outstanding		-608.3	199.3	-608.3	199.3
Portfolio transfers		0.6	-42.5	0.6	-42.5
		-6,046.1	-5,128.1	-6,046.1	-5,128.1
Change in provision for unearned premiums					
Total change		761.5	-3,394.3	761.5	-3,394.3
Portfolio transfers		0.2	-90.1	0.2	-90.1
		761.7	-3,484.3	761.7	-3,484.3
Operating expenses	4	-68.2	-69.6	-68.2	-69.6
Investment expenses	3	-5,471.0	-3,244.9	-5,441.7	-3,231.7
<b>Balance on technical account</b>		<b>14.7</b>	13.2	<b>18.5</b>	6.0
<b>Non-technical account</b>					
Balance on technical account		14.7	13.2	18.5	6.0
Share of associated companies' profit				5.4	4.0
Income taxes on ordinary activities					
Taxes for the financial year		-7.9	-7.2	-7.9	-7.2
<b>Profit/loss on ordinary activities after taxes</b>		<b>6.8</b>	5.9	<b>16.0</b>	2.8
Minority interest in the result for the financial year				0.0	0.0
<b>Profit/loss for the financial year</b>		<b>6.8</b>	5.9	<b>16.1</b>	2.8

## Balance sheet

31 Dec, € million	Note	Parent company 2018	Parent company 2017	Group 2018	Group 2017
<b>ASSETS</b>					
<b>Intangible assets</b>					
Other intangible assets	17	0.4	0.7	0.4	0.7
<b>Investments</b>					
Real-estate					
Real estate and real estate shares	14	1,533.3	1,556.2	2,210.7	2,153.8
Loans to Group companies	14	751.4	682.2		
		2,284.7	2,238.4	2,210.7	2,153.8
Investments in Group companies and participating interests					
Shares and participations in Group companies	12,13	4.3	4.3	0.6	0.5
Shares and participations in participating interests	12,13	18.5	18.5	27.5	22.2
		22.8	22.8	28.1	22.7
Other investments					
Shares and participations	16	23,963.4	23,640.7	23,976.3	23,652.7
Money-market instruments		6,947.8	6,890.4	6,947.8	6,890.4
Loans guaranteed by mortgages		288.6	269.8	288.6	269.8
Other loan receivables	18	1,559.1	1,213.1	1,559.1	1,213.1
		32,758.8	32,014.0	32,771.7	32,026.0
		35,066.3	34,275.2	35,010.5	34,202.5
<b>Receivables</b>					
Direct insurance operations					
Policyholders		325.8	238.5	325.8	238.5
Other receivables					
Other receivables		544.6	592.9	553.5	601.0
		870.4	831.4	879.3	839.5
<b>Other assets</b>					
Tangible assets					
Equipment	17	2.7	3.2	2.7	3.2
Other tangible assets	17	0.9	0.9	0.9	0.9
		3.6	4.0	3.6	4.0
Cash at bank and in hand		1,330.4	2,156.9	1,331.1	2,157.4
		1,333.9	2,160.9	1,334.7	2,161.4
<b>Prepayments and accrued income</b>					
Accrued interest and rent		76.4	76.6	79.5	78.8
Other prepayments and accrued income		2.6	7.3	4.8	7.3
		79.0	83.8	84.3	86.0
<b>TOTAL ASSETS</b>		<b>37,350.0</b>	37,352.1	<b>37,309.1</b>	37,290.2

## Balance sheet

31 Dec, € million	Note	Parent company 2018	Parent company 2017	Group 2018	Group 2017
<b>LIABILITIES</b>					
<b>Capital and reserves</b>					
Guarantee capital		11.9	11.9	11.9	11.9
Other reserves		111.1	105.8	111.1	105.8
Profit/loss brought forward		0.6	0.6	-62.8	-59.7
Profit/loss for the financial year		6.8	5.9	16.1	2.8
	26	130.5	124.2	76.3	60.8
<b>Minority interest</b>					
				12.6	12.7
<b>Technical provisions</b>					
Provision for unearned premiums	23	18,722.8	19,505.9	18,722.8	19,505.9
Provision for claims outstanding	23	17,798.6	17,190.4	17,798.6	17,190.4
		36,521.4	36,696.2	36,521.4	36,696.2
<b>Liabilities</b>					
Direct insurance operations		30.1	7.1	30.1	7.1
Other liabilities		553.4	499.5	553.9	488.2
		583.5	506.6	584.0	495.3
<b>Accruals and deferred income</b>					
		114.6	24.9	114.7	25.1
<b>TOTAL LIABILITIES</b>		<b>37,350.0</b>	37,352.1	<b>37,309.1</b>	37,290.2

## Statement of source and application of funds

1 Jan-31 Dec, € million	Parent company 2018	Parent company 2017	Group 2018	Group 2017
<b>Cash flow from operations</b>				
Profit/loss on ordinary activities	14.7	13.2	18.5	6.0
Adjustments				
Changes in technical provisions	-174.8	3,195.0	-174.8	3,195.0
Impairments and revaluations on investments	1,075.5	686.9	1,055.7	680.7
Depreciation according to plan	11.2	13.1	78.9	71.9
Capital gain and loss	-1,389.7	-2,706.3	-1,388.9	-2,700.6
Cash flow before change in working capital	-463.1	1,201.8	-410.7	1,253.0
Change in working capital:				
Increase (-) / decrease (+) in non-interest-bearing short-term receivables	-34.2	-206.0	-38.1	-209.8
Increase (-) / decrease (+) in non-interest-bearing short-term debt	166.6	212.0	178.4	217.8
Cash flow from operations before taxes	-330.7	1,207.8	-270.4	1,261.0
Direct taxes paid	-7.9	-7.2	-7.9	-7.2
<b>Cash flow from operations</b>	<b>-338.6</b>	1,200.6	<b>-278.3</b>	1,253.8
<b>Cash flow from investments</b>				
Net investments and proceeds from asset sales	-487.1	181.6	-547.2	128.5
Investments and gains on intangible, tangible and other assets	-0.2	-2.4	-0.2	-2.4
<b>Cash flow from investments</b>	<b>-487.4</b>	179.2	<b>-547.4</b>	126.1
<b>Cash flow from financing</b>				
Interest paid on guarantee capital and other profit distribution	-0.6	-0.7	-0.6	-0.7
<b>Cash flow from financing</b>	<b>-0.6</b>	-0.7	<b>-0.6</b>	-0.7
<b>Change in financial resources</b>	<b>-826.5</b>	1,379.1	<b>-826.3</b>	1,379.3
<b>Financial resources, 1 Jan</b>	<b>2,156.9</b>	777.8	<b>2,157.4</b>	778.1
<b>Financial resources, 31 Dec</b>	<b>1,330.4</b>	2,156.9	<b>1,331.1</b>	2,157.4

# 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 had 126 (137) 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 consolidated 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 Statements due to limitations concerning controlling interest and distribution of profits.

Share of associated companies' profit or loss is included in the consolidated income statement. The Group's share of the associated

companies' profit or loss produced after the day of acquisition is added in the consolidated balance sheet to the acquisition cost of the associated company in question.

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 2018.

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 instruments 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.

Varma received a minor employer-specific insurance portfolio during the financial year 2018.

### 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 workability 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 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/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.

The parent company Varma's total result at fair value stood at EUR -1,741 (1,524) million, and the balance sheet total was EUR 44,878 (46,161) million.

## 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 calculation 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 report.

# GROUP COMPANIES 31 DEC 2018

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

As. Oy Jyväskylän Spinetti  
Asunto Oy Vantaan Topaasikuja 9

## The following 126 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 Näkinkuja 4  
As. Oy Vantaan Tellervo  
Asunto Oy Espoon Keijumäki  
Asunto Oy Espoon Kilonlemmikki  
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 Tyyneimerenkatu 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 Neilikkatie  
Asunto Oy Oulun Lehmuskuja  
Asunto Oy Siltavoudintie 1  
Asunto Oy Tampereen Nahkakuja 13  
Asunto Oy Tampereen Nahkakuja 9  
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 Kärjäkuja 1  
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 Elocinkulma 3  
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 Ratavartijankatu 5  
Kiinteistö Oy Helsingin Suolakivenkatu 1  
Kiinteistö Oy Helsingin Valimopolku 4  
Kiinteistö Oy Helsingin Valimotie 16  
Kiinteistö Oy Helsingin Valimotie 9-11  
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 Itäinen Rantakatu 60  
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  
Kiinteistö Oy Jyväskylän Mattilanniemi



# GROUP COMPANIES 31 DEC 2018

Kiinteistö Oy Jyväskylän Saarijärventie 50-52

Kiinteistö Oy Jyväskylän Sorastajantie 1

Kiinteistö Oy Kaakkurinhovi

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 Metsäpojankuja 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 Savonkatu 21

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 Vallilan toimisto

Kiinteistö Oy Vantaan Tasetie 8

Kiinteistö Oy Varmantalo

Kiinteistöosakeyhtiö Varma

Old Mill Oy

Osakevarma Oy

Oy Ässäkeskus Ab

Pitäjänmäen Kiinteistöt Oy

P-Turkuparkki Oy

Saimaan Kylpyläkiinteistöt Oy

Tampereen Kiinteistö Invest Oy

Tieto Esy Oy

Ässäparkki Oy

## The following 13 real estate companies exited the Group during the year under review:

Helsingin Kiinteistösijoitus Oy

Kiinteistö Oy Joensuun Pilkontie 3

Kiinteistö Oy Kaikukatu 7

Kiinteistö Oy Lahden Virastotalo

Kiinteistö Oy Lohjan Sampotalo

Kiinteistö Oy Lönnrotinkatu 12 A

Kiinteistö Oy Nihtitorpankuja 4

Kiinteistö Oy Oulun Aurora

Kiinteistö Oy Pyynikin Trikoo

Kiinteistö Oy Seinäjoen Rengastie 4

Kiinteistö Oy Tietotalo

Kiinteistö Oy Varkauden Kauppakatu 47

Kiinteistöosakeyhtiö Mikkelin Karikontie 101

**No new associates are included in Varma's consolidated financial statements.**

## In addition, the Group comprises the following 17 associates:

Aros Bostad III AB

CMCV Kungens Kurva Holdco AB

Kiinteistö Oy Elocinkulma 1

Kiinteistö Oy Liikejalava

Kiinteistö Oy Pyynikin Parkki

Kiinteistö Oy Selloparkki

Kiinteistö Oy Suursuon Ostoskeskus

Leineläntien pysäköintikiinteistö Oy

NV Kiinteistösijoitus Oy

Näkin Pihapuiستikko II Oy

Oulun Lehmusparkki Oy

Ruohoparkki Oy

Salmiparkki Oy

Serena Properties AB

Spektri Kiinteistöt GP Oy

Vaasan Toripysäköinti Oy

VVT Kiinteistösijoitus Oy

**No associates exited the Group during the year.**

# NOTES TO THE INCOME STATEMENT

## 1. Premiums written

1 Jan-31 Dec, € million	Parent company 2018	Parent company 2017	Group 2018	Group 2017
Direct business				
Basic insurance under TyEL				
Employer's share	3,581.4	3,441.3	3,581.4	3,441.3
Employee's share	1,355.8	1,244.5	1,355.8	1,244.5
	4,937.2	4,685.9	4,937.2	4,685.9
Supplementary pension insurance under TEL	0.0	0.4	0.0	0.4
Insurance under minimum YEL cover	183.4	184.3	183.4	184.3
	5,120.6	4,870.6	5,120.6	4,870.6
Transition payment to the State Pension Fund	-2.5	-3.1	-2.5	-3.1
Reinsurance	0.0	0.1	0.0	0.1
Premiums written before reinsurance	5,118.0	4,867.5	5,118.0	4,867.5
Reinsurance share	0.0	-0.1	0.0	-0.1
Premiums written <sup>1)</sup>	5,118.0	4,867.4	5,118.0	4,867.4
Credit loss on premium receivables				
TyEL	13.5	10.1	13.5	10.1
YEL	2.3	2.3	2.3	2.3
	15.8	12.4	15.8	12.4

<sup>1)</sup> Less credit loss

## 2. Claims paid

1 Jan-31 Dec, € million	Parent company 2018	Parent company 2017	Group 2018	Group 2017
Direct business				
Paid to pensioners				
Basic insurance under TyEL	5,293.8	5,172.9	5,293.8	5,172.9
Supplementary pension insurance under TEL	89.5	92.3	89.5	92.3
Insurance under minimum YEL cover	284.1	278.1	284.1	278.1
Supplementary pension insurance under YEL	0.8	0.7	0.8	0.7
	5,668.2	5,544.0	5,668.2	5,544.0
Compensation paid/received as regards clearing of PAYG pensions <sup>1)</sup>				
TyEL pensions	-24.1	-10.3	-24.1	-10.3
YEL pensions	-49.8	-54.4	-49.8	-54.4
Share of the Unemployment Insurance Fund contribution and cost distribution of pension components accrued on no-pay periods	-145.5	-198.3	-145.5	-198.3
YEL state share	-43.8	-31.8	-43.8	-31.8
VEKL state compensation	-0.9	-1.3	-0.9	-1.3
	-264.2	-296.2	-264.2	-296.2
Reinsurance	0.1	0.0	0.1	0.0
	5,404.1	5,247.8	5,404.1	5,247.8
Claims handling expenses	28.1	31.2	28.1	31.2
Administrative costs for disability risk management <sup>2)</sup>	6.3	5.9	6.3	5.9
Claims paid before reinsurance	5,438.4	5,284.9	5,438.4	5,284.9
Reinsurance share	0.0	-0.1	0.0	-0.1
Total claims paid	5,438.4	5,284.9	5,438.4	5,284.9

<sup>1)</sup> 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.

<sup>2)</sup> Between 2000 and 2018 the administrative cost components of Varma's premium income totalled EUR 96 million, 100% of which were used for well-being-at-work projects as part of claims incurred. In 2018, the administrative cost components totalled EUR 6.3 million, and EUR 6.3 million were transferred to claims incurred.

### 3. Breakdown of net investment return

1 Jan–31 Dec, € million	Parent company 2018	Parent company 2017	Group 2018	Group 2017
<b>Investment return</b>				
Returns on investments in Group companies				
Dividend	0.2	0.4		
	0.2	0.4		
Returns on investments in participating interests				
Dividend	0.0	0.0		
	0.0	0.0		
Returns on investments in real estate				
Interest				
Group companies	28.5	30.7		
Other than Group companies			0.5	0.5
Other returns				
Other than Group companies	196.1	208.1	215.1	228.2
	224.6	238.8	215.6	228.7
Returns on other investments				
Dividend	512.5	581.1	512.6	581.3
Interest	521.2	203.9	521.2	203.9
Other returns	1,255.5	2,565.7	1,255.5	2,565.7
	2,289.2	3,350.7	2,289.3	3,350.9
	2,513.9	3,589.8	2,505.0	3,579.6
Reversed impairment	219.3	78.6	203.6	74.3
Sales proceeds	2,987.0	3,404.3	2,986.2	3,398.5
Total	5,720.3	7,072.8	5,694.7	7,052.4
<b>Investment expenses</b>				
On real estate	-144.2	-150.4	-83.1	-89.1
On other investments	-2,102.9	-1,575.9	-2,102.9	-1,575.9
Interest and other expenses on debt capital	-321.5	-43.6	-321.3	-43.5
	-2,568.6	-1,770.0	-2,507.3	-1,708.6
Impairment and depreciation				
Impairment	-1,294.8	-765.5	-1,259.2	-754.9
Planned depreciation on buildings	-10.2	-11.5	-77.9	-70.2
	-1,305.1	-776.9	-1,337.1	-825.2
Sales losses	-1,597.3	-698.0	-1,597.3	-698.0
Total	-5,471.0	-3,244.9	-5,441.7	-3,231.7
<b>Net investment return in the income statement</b>	249.3	3,827.8	253.0	3,820.7
Net investment return in the income statement includes other foreign exchange gains and losses of investment operations	-799.3	592.8	-799.3	592.8

### 4. Operating expenses in the income statement

1 Jan–31 Dec, € million	Parent company 2018	Parent company 2017	Group 2018	Group 2017
Insurance policy acquisition costs				
Direct business commissions	1.9	1.4	1.9	1.4
Other insurance policy acquisition costs	7.0	6.5	7.0	6.5
	8.9	7.9	8.9	7.9
Portfolio administration expenses	30.4	32.3	30.4	32.3
Administrative expenses				
Statutory charges				
Finnish Centre for Pensions' share	8.9	9.5	8.9	9.5
Judicial administration fee	1.2	1.1	1.2	1.1
Financial Supervisory Authority supervision fee	0.8	0.8	0.8	0.8
	10.9	11.4	10.9	11.4
Other administrative expenses	18.0	18.1	18.0	18.1
	68.2	69.6	68.2	69.6

### 5. Overall operating expenses by function

1 Jan–31 Dec, € million	Parent company 2018	Parent company 2017	Group 2018	Group 2017
Claims paid				
Claims handling expenses	28.1	31.2	28.1	31.2
Disability risk management expenses	6.3	5.9	6.3	5.9
	34.4	37.1	34.4	37.1
Operating expenses	68.2	69.6	68.2	69.6
Investment management charges				
On real estate	3.7	3.3	3.7	3.3
On other investments	18.6	19.3	18.6	19.3
	22.3	22.6	22.3	22.6
Total operating expenses	124.8	129.3	124.8	129.3

## 6. Personnel expenses

	Parent company 2018	Parent company 2017	Group 2018	Group 2017
<b>1 Jan–31 Dec, € million</b>				
Salaries and remunerations	40.1	39.3	40.1	39.3
Pension expenses	6.9	6.6	6.9	6.6
Other personnel-related expenses	1.3	3.0	1.3	3.0
Total	48.3	48.8	48.3	48.8

## 7. Management salaries and remunerations

	Parent company 2018	Parent company 2017	Group 2018	Group 2017
<b>1 Jan–31 Dec, € million</b>				
President and CEO	0.9	0.7	0.9	0.7
Members and deputy members of the Board of Directors	0.5	0.4	0.5	0.4
Members and deputy members of the Supervisory Board	0.2	0.1	0.2	0.1
Total	1.5	1.2	1.5	1.2
Average number of personnel during the financial year	532	524	532	524

President & CEO Risto Murto was paid EUR 876,959.28 in salary and fringe benefits. CEO Risto Murto's retirement age is 65 years.

## 8. Auditors' fees

	Parent company 2018	Parent company 2017	Group 2018	Group 2017
<b>1 Jan–31 Dec, € million</b>				
	Ernst & Young Oy	KPMG Oy Ab	Ernst & Young Oy	KPMG Oy Ab
Audit fees <sup>1</sup>	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	0.1	0.1	0.1	0.1
Other fees	0.1	0.2	0.1	0.2

<sup>1</sup> Varma's auditor for 2018 was Ernst & Young Oy and for 2017 KPMG Oy Ab.

## 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 2018	Book value 2018	Fair value 2018	Remaining acquisition cost 2017	Book value 2017	Fair value 2017
Real estate investments						
Real estate	302.7	312.8	429.9	303.6	315.3	428.0
Real estate shares in Group companies	1,211.2	1,211.2	1,724.2	1,229.5	1,229.5	1,693.6
Other real estate shares	9.3	9.3	9.5	11.3	11.3	11.6
Loans to Group companies	530.5	530.5	530.5	572.5	572.5	572.5
Loans to real estate companies	220.9	220.9	220.9	109.7	109.7	109.7
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	33.8	18.5	18.5	24.7
Other investments						
Shares and participations	23,963.4	23,963.4	31,244.6	23,640.7	23,640.7	31,867.6
Money-market instruments	6,947.8	6,947.8	6,953.6	6,890.4	6,890.4	7,105.3
Loans guaranteed by mortgages	288.6	288.6	288.6	269.8	269.8	269.8
Other loan receivables	1,559.1	1,559.1	1,560.6	1,213.1	1,213.1	1,215.3
	35,056.2	35,066.3	43,000.4	34,263.4	34,275.2	43,302.5
<b>The remaining acquisition cost of money-market instruments includes:</b>						
The difference between the nominal value and acquisition cost, released (+) or charged (-) to interest income	-32.8			-43.4		
Book value includes						
Revaluations entered as income		10.1			11.8	
Valuation difference (difference between fair value and book value)			7,934.1			9,027.3
Non-hedging derivatives		-111.2	-40.9		-58.6	62.2
Valuation difference (difference between fair value and book value)			70.3			120.8
<b>Valuation difference, total</b>			<b>8,004.4</b>			<b>9,148.1</b>

## 11. Investments at fair value and valuation differences, Group

31 Dec, € million	Remaining acquisition cost 2018	Book value 2018	Fair value 2018	Remaining acquisition cost 2017	Book value 2017	Fair value 2017
Real estate investments						
Real estate	2,191.3	2,201.4	2,886.8	2,130.7	2,142.5	2,786.3
Other real estate shares	9.3	9.3	9.5	11.3	11.3	11.6
Investments in Group companies						
Shares and participations	0.6	0.6	0.9	0.5	0.5	0.9
Investments in participating interests						
Shares and participations	27.5	27.5	33.8	22.2	22.2	24.7
Other investments						
Shares and participations	23,976.3	23,976.3	31,257.5	23,652.7	23,652.7	31,879.7
Money-market instruments	6,947.8	6,947.8	6,953.6	6,890.4	6,890.4	7,105.3
Loans guaranteed by mortgages	288.6	288.6	288.6	269.8	269.8	269.8
Other loan receivables	1,559.1	1,559.1	1,560.6	1,213.1	1,213.1	1,215.3
	35,000.4	35,010.5	42,991.3	34,190.8	34,202.5	43,293.7
<b>The remaining acquisition cost of money-market instruments includes:</b>						
The difference between the nominal value and acquisition cost, released (+) or charged (-) to interest income	-32.8			-43.4		
Book value includes						
Revaluations entered as income		10.1			11.8	
Valuation difference (difference between fair value and book value)			7,980.8			9,091.1
Non-hedging derivatives		-111.2	-40.9		-58.6	62.2
Valuation difference (difference between fair value and book value)			70.3			120.8

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

31 Dec 2018, € 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 2018	Domicile	Shares, %	Votes, %	Book value, € million
Tieto Esy Oy	Helsinki	14.4%	50.1%	0.9
Osakevarma Oy	Helsinki	100.0	100.0	3.3
				4.3
Housing associations and real estate companies				1,211.2

### Shares and participations in participating interests

31 Dec 2018	Domicile	Shares, %	Votes, %	Book value, € million
Aros Bostad III AB	Stockholm	35.1%	35.1%	0.0
CMCV Kungenskurva HoldCo AB	Stockholm	45.0%	45.0%	10.0
NV Kiinteistösjointus Oy	Helsinki	45.0%	45.0%	0.0
Serena Properties AB	Stockholm	43.0%	43.0%	8.5
Spektri Kiinteistöt GP Oy	Helsinki	24.7%	24.7%	0.0
VVT Kiinteistösjointus Oy	Helsinki	45.0%	45.0%	0.0
				18.5
Housing associations and real estate companies				6.1

## 13. Investments in Group companies and participating interests, Group

31 Dec 2018, € million

Shares and participations in Group companies	
Acquisition cost, 1 Jan	0.5
Increase	0.1
Decrease	0.0
Acquisition cost, 31 Dec	0.6
Shares and participations in participating interests	
Acquisition cost, 1 Jan	22.2
Increase	5.4
Decrease	-0.1
Acquisition cost, 31 Dec	27.5

### Shares and participations in Group companies

31 Dec 2018	Domicile	Shares, %	Votes, %	Book value, € million
Tieto Esy Oy	Helsinki	14.4%	50.1%	0.6
				0.6

### Shares and participations in participating interests

31 Dec 2018	Domicile	Shares, %	Votes, %	Book value, € million
Aros Bostad III AB	Stockholm	35.1%	35.1%	0.6
CMCV Kungenskurva HoldCo AB	Stockholm	45.0%	45.0%	10.5
NV Kiinteistösjointus Oy	Helsinki	45.0%	45.0%	0.0
Serena Properties AB	Stockholm	43.0%	43.0%	16.4
Spektri Kiinteistöt GP Oy	Helsinki	24.7%	24.7%	0.0
VVT Kiinteistösjointus Oy	Helsinki	45.0%	45.0%	0.0
				27.5
Housing associations and real estate companies				11.8

#### 14. Changes in investments in real estate

	Parent Company Real estate and real estate shares	Parent Company Loans to Group companies	Group Real estate and real estate shares
<b>31 Dec 2018, € million</b>			
Acquisition cost, 1 Jan	2,050.5	682.2	3,342.1
Increase	42.1	111.6	176.1
Decrease	-84.7	-42.5	-114.3
Acquisition cost, 31 Dec	2,007.8	751.4	3,403.9
Accumulated depreciation, 1 Jan	-187.3		-911.0
Accumulated depreciation on deductions and transfers	8.3		35.3
Depreciation for the financial year	-10.2		-68.2
Accumulated depreciation, 31 Dec	-189.2		-943.9
Impairments, 1 Jan	-318.8		-289.1
Impairments on deductions and transfers	48.6		38.2
Impairments for the financial year	-44.5		-30.6
Reversed impairment	19.4		22.1
Impairments, 31 Dec	-295.4		-259.5
Revaluations, 1 Jan	11.8		11.8
Revaluations on deductions and transfers	-1.7		-1.7
Revaluations, 31 Dec	10.1		10.1
Book value, 31 Dec	1,533.3	751.4	2,210.7

#### 15. Real estate investments in own use

	Parent Company	Group
<b>31 Dec 2018, € million</b>		
Remaining acquisition cost	64.4	64.4
Book value	64.4	64.4
Fair value	76.3	76.3



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

31 Dec 2018	Shares, %	Book value, € million	Market value, € million
<b>Listed equities</b>			
<b>Finland</b>			
Ahlstrom-Munksjö Oyj	1.5	20.5	25.2
Aktia Bank Plc	1.3	6.7	10.6
Alma Media Corporation	6.5	23.0	28.5
Altia Plc	4.3	11.0	11.0
Amer Sports Corporation	2.2	31.7	99.4
Aspo Plc	4.6	6.0	11.4
Atria Plc	1.9	3.4	3.4
Bittium Oyj	3.8	8.3	10.4
CapMan Plc	2.4	5.4	5.4
Cargotec Corporation	2.6	45.1	45.1
Caverion Corporation	7.0	49.3	49.3
Componenta Corporation	5.9	1.5	1.5
Consti Yhtiöt Oyj	2.2	0.9	0.9
Cramo Plc	1.7	11.1	11.3
Detection Technology, Inc.	3.6	2.7	8.4
Digia Plc	3.8	2.6	3.6
DNA Oyj	0.2	2.9	5.0
Elisa Corporation	3.1	65.6	186.6
Etteplan Oyj	3.9	3.3	7.6
Fellow Finance Oyj	1.4	0.7	0.7
Finnair Plc	0.3	1.5	2.7
Fiskars Corporation	3.0	24.9	37.0
Fortum Corporation	1.0	159.7	163.1
F-Secure Corporation	2.2	7.5	8.0
Glaston Corporation	6.6	4.9	4.9
Gofore Oyj	3.9	3.3	4.2
HKScan Corporation	1.5	1.2	1.2
Huhtamaki Group	4.4	127.3	127.3
Kemira Oyj	3.4	52.3	52.3
Kesko Corporation	1.1	16.7	53.1
Kesla Oyj	4.4	0.6	0.6
Kojamo Oyj	12.3	33.1	247.7
Konecranes Plc	3.7	72.7	76.0
KONE Corporation	0.6	70.3	124.5
Kotipizza Oyj	3.1	1.0	4.6
Lassila & Tikanoja Plc	0.9	3.9	5.2

31 Dec 2018	Shares, %	Book value, € million	Market value, € million
Marimekko Corporation	4.8	3.4	8.0
Metsä Board Corporation	4.9	40.4	90.1
Metso Corporation	2.5	84.6	84.6
Neste Corporation	1.3	163.3	231.9
Nixu Corporation	3.6	1.2	2.0
NoHo Partners Oyj	1.4	1.2	2.3
Nokian Tyres Plc	2.7	61.8	101.1
Nokia Corporation	1.2	322.9	337.5
Nordea Bank Abp	1.6	473.2	473.2
Olvi Plc	4.0	17.6	25.8
Oma Säästöpankki Oyj	1.8	3.7	3.7
Oriola Corporation	4.2	12.9	14.9
Orion Corporation	1.4	50.6	58.9
Outokumpu Oyj	4.4	59.1	59.1
Outotec Oyj	8.1	45.3	45.3
Ponsse Plc	1.4	1.6	9.6
Pöyry Plc	4.5	20.9	28.1
Qt Group Oyj	4.1	2.9	8.6
Raisio Plc	2.2	8.3	8.3
Ramirent Plc	0.3	1.8	1.8
Raute Plc	1.2	0.6	1.1
Robit Plc	7.9	2.7	2.7
Rovio Entertainment Oyj	0.9	2.6	2.6
Sampo Plc	4.0	177.5	851.0
Sanoma Corporation	0.1	0.7	1.7
Siili Solutions Oyj	1.9	1.9	2.1
Silmäasema Oyj	4.6	2.8	2.8
Solteq Oyj	6.5	1.6	1.6
SRV Group Plc	0.9	1.2	1.2
SSH Communications Security Oyj	1.9	1.3	1.3
Stockmann Plc	9.1	12.4	12.4
Stora Enso Oyj	1.2	105.5	105.5
Suominen Corporation	7.7	9.2	9.2
Teleste Corporation	2.7	2.7	2.7
Terveystalo Oyj	17.3	177.2	177.2
Tieto Corporation	0.2	4.2	4.2
Tikkurila Oyj	5.7	30.0	30.0
Tokmanni Group Oyj	7.4	30.7	31.1

31 Dec 2018	Shares, %	Book value, € million	Market value, € million
UPM-Kymmene Corporation	2.5	292.8	292.8
Uponor Corporation	5.3	33.1	33.1
Valmet Corporation	2.8	34.9	74.4
Verkkokauppa.com Oyj	4.6	8.5	8.5
Viafin Service Oyj	3.3	0.6	0.6
Vincit Oyj	5.7	3.4	3.4
Wärtsilä Corporation	5.2	144.7	426.8
Wulff Group Plc	6.5	0.7	0.7
YIT Corporation	7.6	81.2	81.2
Other		1.4	4.1
<b>Finnish equities, total</b>		<b>3,425.4</b>	<b>5,198.3</b>
<b>Other countries</b>			
<b>Australia</b>			
Coca-Cola Amatil Ltd	0.0	1.3	1.3
Commonwealth Bank of Australia	0.0	1.1	1.1
GPT Group	0.1	3.3	3.3
Mirvac Group	0.1	2.8	2.8
National Australia Bank Ltd	0.0	1.5	1.5
Telstra Corp Ltd	0.0	2.2	2.2
Westpac Banking Corporation	0.0	1.5	1.5
<b>Austria</b>			
Erste Group Bank AG	0.0	4.2	4.2
Palfinger AG	0.3	2.2	2.2
<b>Belgium</b>			
Ageas SA	0.0	0.9	1.1
Anheuser-Busch InBev NV	0.0	18.7	18.7
KBC Groep NV	0.0	7.4	7.4
UCB SA	0.1	6.0	7.1
<b>Canada</b>			
Bank of Montreal	0.0	3.4	3.4
Bank of Nova Scotia	0.0	0.9	0.9
BCE Inc	0.0	3.5	3.5
International Petroleum Corporation	0.3	0.7	0.7
Royal Bank of Canada	0.0	2.8	3.0
TELUS Corporation	0.0	6.5	6.5
Toronto-Dominion Bank	0.0	1.2	1.3

31 Dec 2018	Shares, %	Book value, € million	Market value, € million
<b>Cayman Islands</b>			
Phoenix Group Holdings PLC	0.0	0.5	0.5
<b>Denmark</b>			
A.P. Møller-Mærsk A/S	0.0	3.3	3.3
Carlsberg A/S	0.1	5.6	5.6
Christian Hansen Holding A/S	0.0	3.6	3.9
Coloplast A/S	0.0	3.9	4.0
DSV A/S	0.1	5.7	5.7
Genmab A/S	0.1	4.9	4.9
ISS A/S	0.0	0.7	0.7
Novo Nordisk A/S	0.0	26.7	26.7
Novozymes A/S	0.0	3.9	3.9
Orsted A/S	0.0	4.5	5.8
Pandora A/S	0.0	0.5	0.5
Vestas Wind Systems A/S	0.0	3.3	4.0
<b>France</b>			
Alstom SA	0.1	5.1	5.1
AXA SA	0.0	5.6	5.7
BNP Paribas SA	0.0	3.9	3.9
Bouygues SA	0.0	3.6	3.8
Carmila SA	0.5	10.9	10.9
Covivio SA	0.2	9.8	10.0
Crédit Agricole SA	0.0	4.0	4.0
Elis SA	0.0	1.1	1.1
Europcar Mobility Group SA	1.1	14.2	14.2
Gecina SA	0.0	3.1	3.1
ICADE SA	0.1	5.0	5.0
Klepierre SA	0.1	5.7	5.7
LVMH Moët Hennessy Louis Vuitton SE	0.0	10.3	10.3
Orange SA	0.0	7.1	7.1
Orpea SA	0.5	24.9	27.6
Peugeot SA	0.0	7.4	7.4
Sanofi SA	0.0	26.9	27.6
Schneider Electric SA	0.0	6.5	6.5
Scor SE	0.0	0.9	1.0
Société Générale SA	0.0	2.8	2.8
Suez Environnement SA	0.1	5.8	5.8

31 Dec 2018	Shares, %	Book value, € million	Market value, € million
Tarkett SA	0.2	2.0	2.0
Teleperformance SA	0.2	12.6	12.6
Unibail-Rodamco SE	0.0	4.6	4.6
Worldline SA	0.2	14.4	16.9
<b>Germany</b>			
Aixtron SE	3.8	35.7	35.7
Allianz SE	0.0	8.7	11.3
Alstria Office REIT-AG	0.7	10.9	14.8
Aumann AG	1.2	5.3	5.3
BASF SE	0.0	4.8	4.8
Bilfinger Berger SE	0.1	1.3	1.3
Carl Zeiss Meditec AG	0.2	8.0	10.9
CTS Eventim AG & Co KGaA	0.3	9.8	9.8
Dermapharm Holding SE	0.9	11.4	11.4
Deutsche Pfandbriefbank AG	0.8	8.8	8.8
Deutsche Post AG	0.0	4.8	4.8
Deutsche Telekom AG	0.0	6.7	6.7
Fresenius Medical Care AG & Co KGaA	0.0	2.8	2.8
Fresenius SE & Co KGaA	0.0	8.3	8.5
Hannover Rückversicherung AG	0.0	0.7	1.0
Infineon Technologies AG	0.1	16.9	16.9
Jenoptik AG	0.9	9.4	11.5
KION Group AG	0.1	3.5	3.5
Merck KGaA	0.1	9.0	9.0
Münchener Rückversicherungs AG	0.1	15.1	17.2
Osram Licht AG	0.1	2.6	2.6
Porsche Automobil Holding SE	0.0	1.7	1.7
RIB Software AG	2.7	16.5	16.5
SAP SE	0.0	8.7	8.7
SGL Carbon SE	0.3	2.4	2.4
Siemens AG	0.0	14.3	14.3
Siemens Healthineers AG	0.0	2.8	3.7
ThyssenKrupp AG	0.1	6.7	6.7
Volkswagen AG	0.0	2.9	3.2
Wirecard AG	0.1	13.6	13.6
<b>Hungary</b>			
Opus Global Nyrt.	1.3	6.7	6.7

31 Dec 2018	Shares, %	Book value, € million	Market value, € million
<b>Ireland</b>			
Accenture PLC	0.0	9.5	10.1
Eaton Corporation PLC	0.0	4.2	4.2
Linde PLC	0.0	1.4	1.5
Medtronic PLC	0.0	7.3	7.9
<b>Italy</b>			
Anima Holding SpA	0.7	8.1	8.1
Assicurazioni Generali SpA	0.0	2.9	2.9
Autogrill SpA	1.2	22.1	22.1
Biesse SpA	0.6	3.0	3.0
Brembo SpA	0.2	6.2	6.2
Buzzi Unicem SpA	0.3	8.3	8.3
De'Longhi SpA	0.5	14.9	14.9
DiaSorin SpA	0.2	7.6	8.5
Hera SpA	1.0	39.3	39.9
Intesa Sanpaolo SpA	0.0	4.7	4.7
Recordati SpA	0.3	18.7	18.9
Terna Rete Elettrica Nazionale SpA	0.0	1.9	2.0
UniCredit SpA	0.0	4.5	4.5
<b>Japan</b>			
Daifuku Co Ltd	0.1	3.6	3.6
FANUC Corp	0.0	3.1	3.1
Keyence Corp	0.0	5.2	5.8
Kyocera Corp	0.0	2.9	2.9
Minebea Mitsumi Inc	0.1	3.2	3.2
Murata Manufacturing Company Ltd	0.0	6.6	6.6
Nidec Corp	0.0	3.6	3.6
Recruit Holdings Co Ltd	0.0	3.6	3.6
YASKAWA Electric Corp	0.1	3.0	3.0
<b>Jersey C.I.</b>			
Experian PLC	0.0	3.1	3.2
<b>Luxembourg</b>			
Eurofins Scientific SE	0.1	4.9	4.9
Solutions 30 SE	1.7	12.3	16.0
Subsea 7 SA	0.1	1.7	1.7

31 Dec 2018	Shares, %	Book value, € million	Market value, € million
<b>Netherlands</b>			
Adyen NV	0.0	3.2	3.3
Aegon NV	0.0	1.1	1.1
Akzo Nobel NV	0.0	3.7	4.3
ASM International NV	0.4	7.6	7.6
ASR Nederland NV	0.0	0.6	0.6
IMCD Group NV	0.7	15.2	19.6
ING Groep NV	0.0	16.9	16.9
Koninklijke Ahold NV	0.0	10.9	12.1
Koninklijke KPN NV	0.1	6.6	6.6
Koninklijke Philips NV	0.0	4.6	4.6
NN Group NV	0.1	9.1	10.9
Qiagen NV	0.1	4.0	4.3
Signify NV	0.1	3.7	3.7
Unilever NV	0.0	4.3	5.2
<b>Norway</b>			
Aker BP ASA	0.0	0.9	1.1
Aker Solutions ASA	0.1	1.4	1.4
Atea ASA	0.3	3.0	3.9
DNB ASA	0.0	8.3	8.3
Equinor ASA	0.0	11.6	12.0
Europris ASA	1.3	5.1	5.1
Hofseth BioCare ASA	1.2	0.8	0.8
Leroey Seafood Group ASA	0.0	0.9	1.3
Mowi ASA	0.0	4.3	4.6
Norsk Hydro ASA	0.1	11.2	11.2
Norwegian Finans Holding ASA	0.7	8.4	8.4
Orkla ASA	0.0	2.7	2.7
Protector Forsikring ASA	0.9	1.6	3.6
Storebrand ASA	2.7	58.4	76.9
Telenor ASA	0.0	6.7	6.7
TGS Nopec Geophysical Co ASA	0.1	2.9	3.1
Yara International ASA	0.4	32.6	32.6
<b>Spain</b>			
Amadeus IT Holding SA	0.0	3.0	3.0
Banco Bilbao Vizcaya Argentaria SA	0.0	2.3	2.3
Banco Santander SA	0.0	4.8	4.8
Enagas SA	0.1	7.9	7.9

31 Dec 2018	Shares, %	Book value, € million	Market value, € million
Ferrovial SA	0.0	6.5	6.5
Grifols SA	0.1	6.2	6.9
Iberdrola SA	0.0	9.6	11.2
Naturgy Energy Group SA	0.0	8.7	10.7
Red Electrica Corp SA	0.1	9.1	9.1
<b>Sweden</b>			
Alfa Laval AB	0.0	3.7	3.7
Assa Abloy AB	0.0	3.1	3.1
Atlas Copco AB	0.1	16.8	16.8
Atrium Ljungberg AB	6.1	82.9	120.2
Boliden AB	0.2	11.2	11.2
Electrolux AB	0.1	7.3	7.3
Epiroc AB	0.1	4.4	6.0
Essity AB	0.0	3.2	3.2
Fastighets AB Balder	0.5	14.8	19.7
Gränges AB	0.3	1.5	1.6
Gunnebo AB	0.3	0.5	0.5
Hennes & Mauritz AB	0.1	9.9	9.9
Hexagon AB	0.0	6.0	6.0
Hexpol AB	0.2	2.9	3.4
Hufvudstaden AB	0.6	10.0	17.1
Investment AB Kinnevik	0.0	2.1	2.1
Investor AB	0.1	12.5	14.6
Inwido AB	0.6	1.8	1.8
Modern Times Group AB	0.3	5.7	5.7
Nobia AB	0.1	0.7	0.7
Sandvik AB	0.1	8.0	8.0
Securitas AB	0.0	2.1	2.1
Skandinaviska Enskilda Banken AB	0.2	30.2	30.2
SKF AB	0.1	3.9	3.9
SSAB AB	0.1	2.2	2.2
Svenska Cellulosa AB	0.2	8.0	8.0
Svenska Handelsbanken Ab	0.1	21.9	21.9
Swedbank AB	0.2	32.7	32.7
Swedish Orphan Biovitrum AB	0.1	6.0	7.5
Tele2 AB	0.2	12.4	13.2
Telefonaktiebolaget LM Ericsson	0.1	19.8	22.7
Telia Company AB	0.1	12.5	12.7

31 Dec 2018	Shares, %	Book value, € million	Market value, € million
Volvo AB	0.1	18.1	18.1
ÅF AB	0.2	1.2	2.5
<b>Switzerland</b>			
ABB Ltd	0.1	28.7	28.7
Baloise Holding AG	0.0	0.8	0.8
Credit Suisse Group AG	0.0	4.3	4.3
Dufry AG	0.1	6.1	6.1
LafargeHolcim Ltd	0.0	9.8	9.8
Novartis AG	0.0	20.6	21.8
Roche Holding AG	0.0	8.3	8.6
Sika AG	0.0	5.7	5.7
Swisscom AG	0.0	3.4	3.4
Swiss Life Holding AG	0.0	1.1	1.6
Swiss Re AG	0.0	10.3	10.9
UBS Group AG	0.0	5.4	5.4
Vifor Pharma AG	0.1	4.7	4.7
Zurich Financial Services AG	0.0	5.2	5.7
<b>United Kingdom</b>			
Admiral Group PLC	0.0	0.7	0.8
AstraZeneca PLC	0.0	22.7	26.3
Aviva PLC	0.0	5.9	5.9
Barclays PLC	0.0	2.5	2.5
British Land Co PLC	0.0	2.3	2.3
Croda International PLC	0.1	3.1	4.2
Direct Line Insurance Group PLC	0.0	0.7	0.7
G4S PLC	0.1	3.3	3.3
GlaxoSmithKline PLC	0.0	10.7	10.8
Halma PLC	0.2	11.0	13.6
Hays PLC	0.1	2.0	2.0
Hikma Pharmaceuticals PLC	0.1	3.8	3.8
Hiscox Ltd	0.0	0.7	0.8
HSBC Holdings PLC	0.0	21.7	21.7
IMI PLC	0.2	5.0	5.0
Inchcape PLC	0.5	12.3	12.3
Just Eat PLC	0.2	8.8	8.8
Legal & General Group PLC	0.0	2.2	2.2
Lloyds Banking Group PLC	0.0	7.5	7.5
Melrose Industries PLC	0.1	5.7	5.7

31 Dec 2018	Shares, %	Book value, € million	Market value, € million
Prudential PLC	0.0	5.9	5.9
Rolls-Royce Group PLC	0.0	2.9	2.9
Royal Dutch Shell PLC	0.0	10.3	10.3
RSA Insurance Group PLC	0.0	0.8	0.8
Smith & Nephew PLC	0.0	5.8	6.5
Spirax-Sarco Engineering PLC	0.1	6.9	6.9
St James's Place PLC	0.0	0.8	0.8
Vesuvius PLC	0.2	3.2	3.2
Vodafone Group PLC	0.0	16.2	16.2
WH Smith PLC	0.6	11.5	11.5
<b>United States</b>			
3M Company	0.0	9.8	9.8
Abbott Laboratories	0.0	6.7	9.5
AbbVie Inc	0.0	9.2	12.1
Alliance Data Systems Corp	0.1	4.0	4.0
Amgen Inc	0.0	18.2	22.1
Antero Resources Corp	0.1	3.2	3.2
Apple Inc	0.0	74.9	81.4
Autodesk Inc	0.0	6.9	11.2
Automatic Data Processing Inc	0.0	5.3	5.3
Baxter International Inc	0.0	6.4	8.6
Biogen Inc	0.0	5.3	5.3
Boston Scientific Corp	0.0	6.1	7.7
Bristol-Myers Squibb Co	0.0	18.2	18.2
Broadridge Financial Solutions Inc	0.1	6.4	7.3
Caterpillar Inc	0.0	3.5	3.5
CSX Corp	0.0	3.4	3.4
CVS Health Corp	0.0	3.4	3.4
Danaher Corp	0.0	6.3	7.2
Edwards Lifesciences Corp	0.0	8.6	13.4
Eli Lilly and Company	0.0	17.2	25.3
Emerson Electric Co	0.0	4.9	4.9
FleetCor Technologies Inc	0.0	6.5	6.5
FLIR Systems Inc	0.1	2.9	2.9
General Electric Co	0.0	5.2	5.2
General Motors Company	0.0	2.9	2.9
Gilead Sciences Inc	0.0	16.4	16.4
Global Payments Inc	0.1	7.8	8.4

31 Dec 2018	Shares, %	Book value, € million	Market value, € million
Google Inc	0.0	76.2	86.9
HCA Holdings Inc	0.0	3.6	5.4
Intuitive Surgical Inc	0.1	12.1	25.1
Johnson & Johnson	0.0	31.3	31.6
Mastercard Inc	0.0	17.4	20.6
Merck & Co Inc	0.0	9.6	13.4
Microsoft Corp	0.0	65.1	87.9
New Relic Inc	0.3	10.6	10.6
NIKE Inc	0.0	2.5	3.2
Nvidia Corp	0.0	10.5	10.5
Parker-Hannifin Corp	0.0	3.6	3.6
PayPal Holdings Inc	0.0	9.9	10.8
Pfizer Inc	0.0	21.3	26.7
Salesforce.com Inc	0.0	16.5	26.3
ServiceNow Inc	0.1	12.2	15.5
Square Inc	0.1	5.8	13.4
Tableau Software Inc	0.2	5.9	13.1
Union Pacific Corp	0.0	4.0	5.4
UnitedHealth Group Inc	0.0	15.0	21.8
United Parcel Service Inc	0.0	2.9	2.9
United Technologies Corporation	0.0	3.7	3.7
Veoneer Inc	0.2	3.7	3.7
Visa Inc	0.0	49.4	73.2
WEX Inc	0.1	5.2	5.2
Worldpay Inc	0.0	4.4	4.8
XPO Logistics Inc	0.1	4.3	4.3
Zebra Technologies Corporation	0.1	7.6	8.4
Zoetis Inc	0.1	15.2	22.4
Other		3.1	26.6
<b>Foreign equities, total</b>		<b>2,523.1</b>	<b>2,858.7</b>
<b>Listed equities, total</b>		<b>5,948.5</b>	<b>8,057.0</b>

31 Dec 2018	Shares, %	Book value, € million	Market value, € million
<b>Unlisted equities</b>			
<b>Finland</b>			
Ahlström Capital Oy	3.7	8.4	26.5
HappySpace Oy	16.7	2.0	4.7
Havator Group Oy	9.2	5.4	7.4
Kaleva Mutual Insurance Company	30.0	2.6	2.6
Kiitosimeon Oy	15.3	2.4	2.4
KotiCap Oy	12.5	3.5	5.4
Mehiläinen Group	7.8	75.0	75.0
Sponff Oy	17.6	2.1	3.4
Tornator Oy	15.3	24.4	107.6
Other		0.5	0.5
<b>Finnish equities, total</b>		<b>126.3</b>	<b>235.4</b>
<b>Other countries</b>			
<b>Netherlands</b>			
BenCo Insurance Holding BV	3.5	0.7	1.8
<b>Foreign equities, total</b>		<b>0.7</b>	<b>1.8</b>
<b>Unlisted equities, total</b>		<b>127.0</b>	<b>237.2</b>

31 Dec 2018	Book value, € million	Fair value, € million
<b>Hedge funds</b>		
<b>The British Virgin Islands</b>		
Spinnaker Global Emerging Markets Fund Ltd	54.1	86.0
<b>Cayman Islands</b>		
Bayview MSR Opportunity Offshore L.P.	89.1	122.0
Bayview Opportunity Offshore III A L.P.	1.7	4.8
Bayview Opportunity Offshore IV A L.P.	123.9	233.8
Blackstone First Avenue Offshore Fund B Ltd	248.7	282.8
Blackstone First Avenue Offshore Fund C Ltd	64.8	67.7
Blackstone First Avenue Offshore Fund Ltd	162.9	263.3
BlueMountain Global Volatility Fund Ltd	61.4	106.7
Capula Global Relative Value Fund Ltd	90.5	153.6
Capula Tail Risk Fund Ltd	50.0	50.0
Carlson Black Diamond Thematic Ltd	38.8	42.5
CarVal Credit Value Fund B II L.P.	19.0	36.5
CarVal Credit Value Fund B IV L.P.	44.9	45.9
CarVal Global Value Fund L.P.	4.0	12.1
Cerberus Global Residential Mortgage Opportunity Fund L.P.	172.4	336.7
Chenavari European Deleveraging Opportunities Fund II L.P.	38.4	42.7
CS Iris V Fund Ltd	23.8	31.6
CVI Credit Value Fund B III L.P.	178.5	210.8
Dialectic Antithesis Offshore Ltd	22.0	22.0
Double Black Diamond Ltd	110.8	200.0
EJF Debt Opportunities Offshore Fund Ltd	209.6	322.2
EJF Financial Services Fund L.P.	25.8	37.2
EJF Speciality Finance Opportunities Offshore Fund L.P.	5.9	5.9
Elan Feeder Fund Ltd	109.3	175.5
Element Capital Feeder Fund Ltd	43.5	267.2
Elliot International Ltd	97.4	277.0
Fir Tree International Value Fund Ltd	13.3	22.9
Fir Tree Special Opportunities Fund VII L.P.	34.7	34.7
Five Mile Capital Partners II L.P.	0.9	1.5
Glenview Capital Partners Ltd	10.1	16.8
Golden Tree Credit Opportunities Ltd	7.7	37.3
Golden Tree Distressed Debt Fund (Cayman) Ltd	43.0	85.3

31 Dec 2018	Book value, € million	Fair value, € million
Golden Tree Distressed Fund 2014 (Cayman) L.P.	61.9	84.2
Golden Tree Offshore Fund II Ltd	9.4	11.3
Golden Tree Offshore Fund Ltd	112.6	120.5
GSA Quantitative Futures Master Fund Ltd	24.0	33.3
GSA Trend Fund Ltd	19.2	19.2
H/2 Credit Partners Ltd	19.0	33.0
HBK Merger Strategies	156.9	186.0
HBK Multi-Strategy Offshore Fund Ltd	123.5	220.6
ICG Alternative Credit	50.0	50.7
King Street Capital Ltd	2.3	4.7
Kuttura Fund L.P.	34.9	84.8
Magnetar PRA Fund Ltd	67.2	81.6
Mortality Fund I	100.6	116.2
NWI Emerging Market Currency Fund	32.2	40.5
OZ Asia Overseas Fund Ltd	0.6	0.6
Pentwater Event Fund Ltd	29.6	52.8
Reservoir Capital Overseas Partners II L.P.	4.8	6.9
Soroban Opportunities Cayman Fund Ltd	68.5	75.5
Systematica BlueMatrix Ltd	30.3	38.8
Systematica BlueTrend Fund Ltd	10.9	12.0
Third Point Offshore Fund Ltd	52.1	74.7
Two Sigma Absolute Return Cayman Fund Ltd	63.6	99.0
Whippoowill Distressed Opportunity Fund Ltd	2.6	6.7
Zais Opportunity Fund Ltd	29.4	93.5
Zebedee Core Fund Ltd	27.1	27.1
Zebedee Focus Fund Ltd B	27.1	27.9
ZP Offshore Utility Fund Ltd	42.7	59.5
<b>Jersey C.I.</b>		
Pharo Gaia	67.9	71.2
Pharo Macro Fund Ltd	34.0	56.7
<b>Luxembourg</b>		
AB Arya	80.3	88.5
Inari Fund	234.9	410.7
<b>United States</b>		
Aviator Capital End-Of-Life Offshore Feeder Fund L.P.	30.0	33.0
Aviator Capital Mid-Life Offshore Feeder Fund L.P.	50.4	68.5

31 Dec 2018	Book value, € million	Fair value, € million
Aviator Fund IV	1.6	1.6
Bayview Liquid Credit Strategies Domestic L.P.	23.2	30.5
Bayview Opportunity Domestic V L.P.	132.2	143.8
Bayview Opportunity V Oceanview L.P.	33.7	33.7
EJF Sidecar Fund L.L.C. - Series D	12.0	18.1
Five Mile Capital Partners L.L.C.	1.7	1.7
H/2 Special Opportunities II L.P.	4.5	10.0
H/2 Special Opportunities III L.P.	90.8	113.5
H/2 Special Opportunities IV L.P.	22.7	22.7
Ivalo Fund L.P.	346.9	720.6
Koitere Fund L.P.	120.8	192.0
Ready Capital Corp	0.9	0.9
Sevetti Fund L.P.	834.6	1,407.3
Other	3.1	11.1
<b>Hedge funds, total</b>	<b>5,530.6</b>	<b>8,732.9</b>
<b>Real estate funds</b>		
<b>Finland</b>		
CapMan Hotels RE Ky	4.6	10.6
CapMan RE II Ky	1.3	1.3
CapMan Real Estate I Ky	2.0	2.0
ICECAPITAL Housing Fund IV Ky	7.1	8.6
NV Property Fund I Ky	41.0	45.7
Pegasos Real Estate Ky	25.3	26.5
Spektri Kiinteistöt Ky	8.7	9.5
VVT Property Fund I Ky	39.3	43.8
Ålandsbanken Lunastustontti I Ky	7.7	8.0
<b>Jersey C.I.</b>		
DRC European Real Estate Debt Fund III L.P.	29.7	29.7
<b>Luxembourg</b>		
Baumont Real Estate One SCSp	3.9	3.9
CapMan Nordic Real Estate FCP-SIF	19.3	31.3
CapMan Nordic Real Estate II FCP-RAIF	14.5	15.2
CCP IV SCSp	28.8	30.4
ECE European Prime Shopping Centre II A SCSp SIF	30.3	37.5
EVP M Campus Lux SCSp	31.6	31.7
Northern Horizon Aged Care SCSp SICAV-SIF	12.0	12.0

31 Dec 2018	Book value, € million	Fair value, € million
Oreima III	50.0	51.6
Prologis Targeted Europe Logistics Fund FCP-FIS	74.9	89.5
TT Holdings SCSp	65.0	77.2
<b>Sweden</b>		
Aros Bostad III AB	3.0	3.0
Aros Bostadskapital 11 AB	3.8	6.0
Aros Bostadskapital 12 AB	8.2	8.2
Aros Bostadskapital 8 AB	0.8	0.8
Aros Bostadskapital 9 AB	3.3	8.8
Serena Properties AB	32.3	32.3
<b>United Kingdom</b>		
Ares European Real Estate Fund II (Euro) L.P.	2.5	2.5
Ares European Real Estate Fund III (Euro) L.P.	1.6	1.6
Benson Elliot Real Estate Partners IV L.P.	18.0	24.5
Blackstone Real Estate Partners Europe III L.P.	14.3	14.3
Blackstone Real Estate Partners International II L.P.	1.7	1.7
Clearbell II L.P.	11.6	23.6
Clearbell III L.P.	15.8	16.2
Curzon Capital Partners 5 Long-Life L.P.	16.3	16.6
Curzon Capital Partners IV L.P.	33.8	33.9
European Real Estate Opportunity II L.P.	0.7	0.7
Lumiere Holdings L.P.	58.5	77.3
Moorfield Audley Real Estate Fund B L.P.	29.3	35.9
Retail Centres V (Sweden) L.P.	60.5	60.5
<b>United States</b>		
Colony Investors VII L.P.	2.1	2.1
Colony Parallell Investors VIII L.P.	1.9	1.9
Other	0.6	1.1
<b>Real estate funds, total</b>	<b>817.9</b>	<b>939.7</b>
<b>Fixed-income funds</b>		
<b>Cayman Islands</b>		
Apollo Total Return Fund (Offshore) Ltd. A-1	215.2	221.9
EJF Funding Offshore L.P.	425.2	436.0
H/2 Targeted Return Strategies II Ltd	438.8	468.3
<b>Finland</b>		
Mandatum Life Nordic High Yield ABS	50.0	50.5

31 Dec 2018	Book value, € million	Fair value, € million
<b>Ireland</b>		
Wellington Emerging Local Debt USD Class G Acc Unh	322.0	322.0
<b>Luxembourg</b>		
Ashmore EM Short duration Fund-Institutional (ACC)-USD	259.7	264.7
BGF Emerging Markets Bond Fund I2 USD	165.6	165.6
GS Growth & Emerging markets Debt Local I USD Fund	334.1	334.1
Symbiotics-Seb Micro Fd V A/C-NH	25.0	25.0
<b>Norway</b>		
Pareto Nordic Corporate Bond I NOK SICAV	44.6	44.6
<b>United States</b>		
iShares Euro HY Corp Bond ETF	147.0	147.0
iShares iBoxx Corporate ETF	342.1	342.1
iShares iBoxx USD HY Corp ETF	191.2	191.2
OHA Finlandia Credit Fund L.P.	419.6	500.3
Vanguard Intermediate-Term Corporate Bond ETF	123.0	123.0
<b>Fixed-income funds, total</b>	<b>3,503.1</b>	<b>3,636.4</b>
<b>Equity funds</b>		
<b>Finland</b>		
Mandatum European Small & Mid Cap Equity S3 Fund	7.9	7.9
Nordea 1 Global Climate and Environment Fund BI EUR	138.5	138.5
Taaleri Rhein Value Equity A	15.8	24.2
<b>Germany</b>		
DB X-Trackers Harvest CSI 300 China A-Shares ETF	46.0	46.0
iShares EURO STOXX 50 UCITS ETF DE	206.2	206.2
iShares EURO STOXX Banks 30-15 ETF	31.6	31.6
iShares EURO STOXX UCITS ETF DE	10.7	10.7
iShares STOXX Europe 600 UCITS ETF DE	3.8	3.8
<b>Ireland</b>		
Hermes Global Emerging Markets Fund Class F USD	110.4	132.2

31 Dec 2018	Book value, € million	Fair value, € million
iShares Russell 2000 ETF	116.0	116.0
Vanguard Emerging Markets Stock Index Fund	392.9	459.7
Vanguard Japan Stock Index Fund JPY	98.1	98.1
<b>Japan</b>		
iShares Core Nikkei 225 ETF	4.8	5.4
Nomura ETF - Nikkei 225	115.5	115.5
Nomura ETF Topix	3.6	3.8
<b>Luxembourg</b>		
Handelsbanken Global Index Criteria Fund A1 EUR SE	187.4	187.4
RAM Emerging Markets Equities class I (P)	110.3	110.3
SSGA Emerging Market SRI Enhanced EQ Fund	195.8	195.8
SSGA Enhanced Emerging Markets Equity Fund	231.3	298.5
<b>Sweden</b>		
East Capital Financials Investors AB	1.1	1.1
XACT OMXS30 ETF	130.9	130.9
<b>United States</b>		
First Trust Nasdaq Cybersecurity ETF	27.6	30.2
Invesco China Technology ETF	46.4	46.4
Invesco KBW Bank ETF	42.4	42.4
Invesco QQQ Trust Series 1 ETF	83.8	83.8
Invesco S&P 500 Equal Weight ETF	51.0	51.0
iShares Core MSCI Emerging Markets ETF	501.4	501.4
iShares Core S&P 500 ETF	90.8	90.8
iShares ESG MSCI EM ETF	50.2	50.2
iShares MSCI Canada ETF	8.5	8.5
iShares MSCI China ETF	270.5	270.5
iShares MSCI Saudi Arabia ETF	37.8	37.8
iShares S&P 500 Value ETF	492.7	492.7
KraneShares CSI China Internet ETF	86.8	86.8
SPDR S&P 500 ETF TRUST	52.5	52.5
SPDR S&P Regional Banking ETF	77.5	77.5
Vanguard Institutional Index Fund Plus Shares	492.6	949.7
Vanguard S&P 500 ETF	204.8	204.8
Other	0.0	0.0
<b>Equity funds, total</b>	<b>4,775.9</b>	<b>5,400.8</b>

31 Dec 2018	Book value, € million	Fair value, € million
<b>Private equity funds</b>		
<b>Australia</b>		
CHAMP IV Funds	25.0	37.0
<b>Canada</b>		
ISQ Global Infrastructure Fund II (EU) L.P.	24.6	24.6
KKR Starlight Co-Invest L.P.	30.0	30.0
<b>Cayman Islands</b>		
1901 (Offshore) Partners I L.P.	21.6	30.2
Affinity Asia Pacific Fund V L.P.	2.5	2.5
Alinda Infrastructure Parallel Fund II L.P.	42.9	42.9
Apollo Infra Equity Fund	52.4	52.4
Auda Asia II L.P.	13.1	18.2
Auda Secondary II Feeder Fund L.P.	3.6	3.6
BDCM Offshore Opportunity Fund IV Ltd	55.6	62.9
Bellwether Co-Invest L.P.	17.3	17.5
CDH Fund V L.P.	31.5	46.3
Crown Co-Investor L.P.	16.6	19.6
Elbrus Capital Fund I L.P.	23.0	23.0
Elbrus Capital Fund II L.P.	32.7	50.2
Gamut Investment Overseas Fund I L.P.	15.9	15.9
Hamilton Lane Co-Investment Feeder Fund IV L.P.	16.8	16.8
I Squared Nautilus Partners L.P.	16.2	19.0
I Squared Transportation Europe L.P.	17.5	17.5
JPW TopCo L.P.	8.3	8.7
KKR Sigma Co-Invest II L.P.	20.0	20.0
K-P Co-Investment L.P.	19.1	21.5
MBK Partners Fund II L.P.	11.6	18.0
MBK Partners Fund III L.P.	49.7	80.0
MBK Partners Fund IV L.P.	27.6	35.2
MBK Partners L.P.	6.5	6.5
Navis Asia Fund VII L.P.	49.8	69.5
Onex Richmond Co-Investment L.P.	9.0	9.0
Primavera Capital Fund II L.P.	61.5	68.4
Primavera Capital III L.P.	22.9	22.9
Strategic Value Special Situations Feeder Fund III L.P.	41.0	85.0

31 Dec 2018	Book value, € million	Fair value, € million
Strategic Value Special Situations Feeder Fund IV L.P.	16.8	20.7
TPG Asia VI L.P.	64.7	73.2
TPG Asia VII (B) L.P.	17.9	17.9
TPG Wireman Co-Invest L.P.	18.8	21.4
Vista Equity Partners Fund VI-A L.P.	73.5	79.1
VMPIC I L.P.	47.0	53.8
<b>Finland</b>		
AC Cleantech Growth Fund I Ky	13.6	13.6
Icebreaker Fund I Ky	0.7	0.7
MAKI.VC Fund I Ky	0.6	0.6
MB Equity Fund IV Ky	9.0	13.9
MB Equity Fund V Ky	10.3	10.3
Power Fund II Ky	3.2	3.2
Power Fund III Ky	5.0	5.0
Selected Mezzanine Funds I Ky	0.7	1.2
Sponsor Fund III Ky	3.7	3.7
Sponsor Fund IV Ky	18.0	18.8
Vaaka Partners Buyout Fund III Ky	5.3	5.7
<b>France</b>		
Asmodée Co-Invest S.L.P.	10.0	10.0
Ethypharm Co-Invest FPCI	13.4	16.4
<b>Guernsey</b>		
Adagio Co-Invest L.P.	7.5	10.4
CapMan Buyout IX Fund A L.P.	16.7	16.7
CapMan Buyout X Fund A L.P.	14.0	15.9
CapMan Russia Fund L.P.	5.8	5.8
CapMan Technology Fund 2007 L.P.	2.1	2.1
Cinven Cullinan L.P.	7.4	10.4
Kool Investment L.P.	11.2	12.9
Permira Europe IV L.P. 2	5.0	6.8
Permira VI L.P. 1	53.0	58.1
The Fifth Cinven Fund (No. 1) L.P.	27.4	27.4
The Sixth Cinven Fund (No. 1) L.P.	25.3	25.3
<b>Jersey C.I.</b>		
Alpha Private Equity Fund 5 - JABBAH CI L.P.	3.8	3.8
CapVest Equity Partners III L.P.	11.6	18.3

31 Dec 2018	Book value, € million	Fair value, € million
<b>Luxembourg</b>		
Atos Medical Co-Invest SCSp	15.0	19.9
Calypso International SARL	1.9	8.9
EQT Infrastructure Fund III (No.1) SCSp	43.4	48.4
EQT Prime Co-Investment SCSp	12.7	15.7
IK Small Cap II Fund No2 SCSp	1.1	1.1
KKR Global Infrastructure Investors III EEA	6.8	6.8
MTN Infrastructure Co-Invest 1 SCSp	16.6	22.8
Refresco Co-Invest SCSp	20.0	20.0
<b>Netherlands</b>		
EQT Mid Mkt US Co-Inv Coöperatief U.A. - Class A	16.3	23.1
<b>United Kingdom</b>		
EQT Aslan Co-Investment L.P.	17.3	26.0
EQT Deck Co-Investment L.P.	13.9	23.2
EQT Infrastructure II No. 2 L.P.	39.6	45.5
EQT Infrastructure No. 1 L.P.	10.9	10.9
EQT Kiwi Co-Investment L.P.	13.4	22.2
EQT V No 1 L.P.	1.7	1.7
EQT VI No 1 L.P.	30.1	36.5
EQT VII No 1 L.P.	54.8	61.0
Hg Capital Mercury 2 L.P.	2.4	2.4
Hg Saturn B L.P.	7.7	7.7
IK VII L.P.	36.5	49.3
IK VIII Fund No.3 L.P.	45.8	51.1
Industri Kapital 2007 L.P. III	0.7	0.7
Macquarie European Infrastructure Fund II L.P.	33.4	42.6
Macquarie European Infrastructure Fund III L.P.	8.1	102.2
Nordic Mezzanine Fund III L.P.	1.2	8.0
PAI Europe VI-1 L.P.	72.8	78.3
<b>United States</b>		
American Global Logistics Co-Investment Blocker Corp.	3.5	3.5
AP Socrates Co-Invest L.P.	8.8	8.8
Apollo Investment Fund VII Euro Holdings L.P.	18.3	18.3
Apollo Overseas Partners (Delaware) VIII L.P.	65.7	80.9
Behrman Capital IV L.P.	28.2	40.9

31 Dec 2018	Book value, € million	Fair value, € million
Blackstone Capital Partners IV L.P.	4.3	4.3
Blackstone Capital Partners V L.P.	8.9	8.9
Blackstone Capital Partners VI L.P.	81.1	126.7
Blackstone Capital Partners VII L.P.	40.2	49.7
Blackstone TN Partners L.P.	15.7	15.7
BlueRun Ventures L.P.	1.3	1.3
Genstar Capital Partners VII L.P.	48.2	72.8
Genstar Capital Partners VIII BL (EU) L.P.	45.8	56.7
Green Equity Investors IV L.P.	0.8	0.8
Hamilton Lane Co-Investment Feeder Fund III L.P.	66.3	76.0
Hamilton Lane Co-Investment Fund L.P.	6.8	6.8
Hamilton Lane Co-Investment Fund II L.P.	21.8	40.0
Hamilton Lane Parallel Investors L.P.	94.5	120.5
IRi Parent L.P.	21.8	21.8
IT Co-Investment Holdings Inc	4.5	11.1
Kelso Hammer Co-Investment L.P.	14.4	24.3
Kelso Investment Associates IX L.P.	66.6	93.9
Kelso Investment Associates VII L.P.	0.8	0.8
Kelso Investment Associates VIII L.P.	36.4	37.7
Kelso Sirius Co-Investment L.P.	4.5	12.3
KKR Banff Co-Invest L.P.	25.6	26.2
MCP Co Invest L.P.	8.5	29.0
MHR Institutional Partners IV L.P.	35.4	35.4
Moelis Capital Partners Opportunity Fund I L.P.	0.9	33.2
Moelis Capital Partners Opportunity Fund I-B L.P.	10.0	10.6
New Mountain Partners IV L.P.	61.6	83.5
New Mountain Partners V L.P.	22.3	22.3
NexPhase Capital Fund III L.P.	30.5	31.0
NM Z Topco L.L.C.	4.2	11.0
Nokia Venture Partners II L.P.	0.7	0.7
Onex Partners II L.P.	3.7	3.7
Onex Partners III L.P.	29.7	45.0
Onex Partners IV L.P.	78.9	78.9
OSYS Holdings L.L.C.	6.3	8.4
Platinum Equity Capital Partners II L.P.	6.2	6.2

31 Dec 2018	Book value, € million	Fair value, € million
Platinum Equity Capital Partners III L.P.	23.4	29.6
Platinum Equity Capital Partners IV L.P.	52.0	56.7
Platinum Equity SCRS Co-Investors L.L.C.	8.5	10.9
Platinum Equity Small Cap Fund L.P.	1.0	1.0
RCM Co-Investment Blocker Corp	7.5	7.5
Saw Mill Capital Partners L.P.	4.1	4.1
TA XII-B L.P.	28.3	42.1
TCW Crescent Mezzanine Partners V L.P.	3.0	5.8
TPG Growth III (B) L.P.	28.6	33.3
TPG GROWTH IV L.P.	9.3	9.3
Warburg Pincus China L.P.	26.2	31.6
Warburg Pincus Energy L.P.	53.2	60.9
Warburg Pincus Private Equity X L.P.	21.5	58.7
Warburg Pincus Private Equity XI L.P.	57.5	102.2
Warburg Pincus Private Equity XII-E L.P.	64.8	73.3
Venari Co-Investment L.L.C.	2.7	2.7
Other	2.0	39.9
<b>Private equity funds, total</b>	<b>3,260.4</b>	<b>4,223.5</b>
<b>Funds, total</b>	<b>17,887.9</b>	<b>22,933.3</b>
<b>Parent Company, total</b>	<b>23,963.4</b>	<b>31,227.5</b>
<b>The Group's shareholding deviates from the Parent Company's as follows:</b>		
Kaleva Mutual Insurance Company guarantee capital	3.3	3.3
Ruohoparkki Oy	3.3	3.3
Vaasan Toripysäköinti Oy	2.3	2.3
Other	4.0	4.0
<b>Group, total</b>	<b>23,976.3</b>	<b>31,240.4</b>



## 17. Changes in tangible and intangible assets, Parent Company

	Intangible assets Other intangible assets	Tangible assets Equipment	Tangible assets Other tangible assets	Total
<b>31 Dec 2018, € million</b>				
Acquisition cost, 1 Jan	4.8	8.7	0.9	14.3
Completely depreciated in the previous year	-3.1	-0.9	0.0	-4.0
Increase	0.0	0.2	0.0	0.2
Decrease	0.0	0.0	0.0	0.0
Acquisition cost, 31 Dec	1.7	8.0	0.9	10.6
Accumulated depreciation, 1 Jan	-4.1	-5.5	0.0	-9.6
Completely depreciated in the previous year	3.1	0.9	0.0	4.0
Depreciation for the financial year	-0.3	-0.7	0.0	-1.0
Accumulated depreciation, 31 Dec	-1.3	-5.3	0.0	-6.6
Book value 31 Dec 2018	0.4	2.7	0.9	4.0
Book value 31 Dec 2017	0.7	3.2	0.9	4.7

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

## 18. Loan receivables itemised by guarantee

	Parent company 2018	Parent company 2017	Group 2018	Group 2017
<b>31 Dec, € million</b>				
Bank guarantee	40.8	66.9	40.8	66.9
Guarantee insurance	103.5	103.6	103.5	103.6
Other guarantee	25.5	42.6	25.5	42.6
Remaining acquisition cost, total	169.8	213.1	169.8	213.1
Unsecured, remaining acquisition cost, total	1,389.2	1,000.0	1,389.2	1,000.0

## 19. Total pension loan receivables itemised by balance sheet item

	Parent company 2018	Parent company 2017	Group 2018	Group 2017
<b>31 Dec, € million</b>				
Loans guaranteed by mortgages	240.8	215.3	240.8	215.3
Other loan receivables	123.0	147.6	123.0	147.6
Remaining acquisition cost, total	363.8	362.9	363.8	362.9

## 20. Loans to related parties

	Parent company 2018	Parent company 2017
<b>31 Dec, € million</b>		
Loans to Group companies	530.5	572.5

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

	Parent company 2018	Parent company 2017	Group 2018	Group 2017
<b>31 Dec, € million</b>				
Other receivables				
Advance payments for option contracts	139.4	123.3	139.4	123.3
Other liabilities				
Advance payments for option contracts	26.2	27.5	26.2	27.5
Value adjustments of derivatives	-111.2	58.6	-111.2	58.6
Accruals and deferred income				
Net interest expenses from derivatives	76.7		76.7	

In 2018, the reporting principles were amended so that the basis point difference between the currency derivatives' forward rate and spot rate is amortised via accruals and deferred income on the balance sheet.

## 22. Liabilities to Group companies, other liabilities

31 Dec, € million	Parent company 2018	Parent company 2017	Group 2018	Group 2017
Other liabilities	0.4	0.2	0.4	0.2

## 23. Technical provisions

31 Dec, € million	Parent company 2018	Parent company 2017	Group 2018	Group 2017
Provision for unearned premiums				
Future pensions	17,338.2	16,310.5	17,338.2	16,310.5
Provision for future bonuses	1,485.9	2,264.5	1,485.9	2,264.5
Provision for current bonuses	154.0	161.9	154.0	161.9
Equity-linked provision for current and future bonuses	-255.3	769.0	-255.3	769.0
Total provision for unearned premiums	18,722.8	19,505.9	18,722.8	19,505.9
Provision for claims outstanding				
Current pensions	17,798.6	17,190.4	17,798.6	17,190.4
Total provision for claims outstanding	17,798.6	17,190.4	17,798.6	17,190.4
Total technical provisions	36,521.4	36,696.2	36,521.4	36,696.2

## 24. Solvency capital

31 Dec, € million	2018	2017
Capital and reserves	130.5	124.2
Interest on guarantee capital proposed for distribution	-0.7	-0.6
Valuation difference between fair values on assets and book values of balance sheet items	8,004.4	9,148.1
Provision for future bonuses <sup>1</sup>	1,485.9	2,264.5
Off-balance sheet commitments	-1.2	-1.2
Intangible assets	-0.4	-0.7
	9,618.5	11,534.4
Minimum solvency capital as required under the Employment Pension Insurance Companies Act, Section 17	1,990.9	2,273.3

<sup>1</sup> An amount (EUR 21.6 million) reserved for the discounts of the expense loading contained in the 2019 insurance contribution has been deducted from the provision for future bonuses.

## 25. Guarantees and liabilities, Parent Company

31 Dec, € million	2018	2017
Guarantees given on own behalf		
Assets pledged as security for derivatives <sup>1</sup>	50.4	3.1
Guarantees received		
Assets pledged as security for derivatives <sup>2</sup>	68.4	262.2
Asset pledged as security for security loans	2,745.0	1,744.4

<sup>1</sup> Given cash guarantees required for the clarification of derivative contracts to the value of EUR 50.35 million are included in the cash at bank and in hand balance sheet item.

<sup>2</sup> Received cash guarantees required for the clarification of derivative contracts to the value of EUR 68.38 million are included in the Other liabilities balance sheet item.

## 26. Capital and reserves

	Parent Company 2018	Group 2018
<b>31 Dec, € million</b>		
Guarantee capital	11.9	11.9
Other reserves, 1 Jan	105.8	105.8
Profit brought forward from 2017	5.3	5.3
Other reserves, 31 Dec	111.1	111.1
Profit/loss brought forward	6.5	-56.9
Transfer to contingency fund	-5.3	-5.3
Distributed interest on guarantee capital	-0.6	-0.6
	0.6	-62.8
Profit/loss for the financial year	6.8	16.1
Total capital and reserves	130.5	76.3

## 27. Capital and reserves after proposed profit distribution

	Parent Company 2018
<b>31 Dec, € million</b>	
Holders of guarantee capital	
Guarantee capital	11.9
Proposed distribution to holders of guarantee capital	0.7
Policyholders	117.9
Total	130.5

## 28. Distributable profits

	Parent Company 2018
<b>31 Dec, € million</b>	
Profit for the financial year	6.8
Other capital and reserves	
Other reserves	111.1
Profit brought forward	0.6
Total distributable profits	118.5

## 29. Guarantee capital

	Number	Guarantee capital
<b>31 Dec 2018, € million</b>		
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	2018	2017
<b>Contingent liabilities and liabilities not included in the balance sheet</b>		
<b>Derivatives</b>		
<b>Derivatives for hedging purposes</b>		
<b>Currency derivatives</b>		
Forward contracts		
Underlying instrument, absolute value	1,112.2	227.1
Underlying instrument, risk-adjusted value	-453.4	-208.0
Fair value	-10.8	2.1
Currency swap contracts		
Underlying instrument, absolute value	14,232.9	13,153.9
Underlying instrument, risk-adjusted value	-14,148.3	-12,992.1
Fair value	-36.1	168.1
<b>Derivatives for other than hedging purposes</b>		
<b>Interest rate derivatives</b>		
Forward and futures contracts		
Underlying instrument, absolute value	750.0	2,133.2
Underlying instrument, risk-adjusted value	-1,226.6	517.8
Fair value	-5.7	4.5
Credit risk derivatives		
Underlying instrument, absolute value	400.0	400.0
Underlying instrument, risk-adjusted value	394.7	400.0
Fair value	25.9	50.1
Interest rate swap contracts		
Underlying instrument, absolute value	1,075.0	4,183.8
Underlying instrument, risk-adjusted value	-411.3	826.6
Fair value	-13.9	-8.9

31 Dec, € million	2018	2017
<b>Currency derivatives</b>		
Option contracts		
Bought		
Underlying instrument, absolute value	439.1	383.4
Underlying instrument, risk-adjusted value	114.1	48.2
Fair value	3.6	2.2
Sold		
Underlying instrument, absolute value	1,139.0	963.0
Underlying instrument, risk-adjusted value	-78.3	-55.3
Fair value	-1.3	-1.5
Forward and futures contracts		
Underlying instrument, absolute value	1,128.3	1,374.9
Underlying instrument, risk-adjusted value	47.3	200.5
Fair value	-9.4	7.9
Currency swap contracts		
Underlying instrument, absolute value	996.3	1,487.6
Underlying instrument, risk-adjusted value	180.3	553.0
Fair value	4.8	-0.8
<b>Equity derivatives</b>		
Forward and futures contracts		
Underlying instrument, absolute value	101.7	615.9
Underlying instrument, risk-adjusted value	101.7	254.4
Fair value	-7.9	-3.2
Option contracts		
Bought		
Underlying instrument, absolute value	599.1	385.0
Underlying instrument, risk-adjusted value	77.7	136.6
Fair value	-17.6	9.5

31 Dec, € million	2018	2017
Sold		
Underlying instrument, absolute value	320.3	511.3
Underlying instrument, risk-adjusted value	106.3	-120.4
Fair value	-9.4	-3.8
<b>Other derivatives</b>		
Forward and futures contracts		
Underlying instrument, absolute value	391.4	735.1
Underlying instrument, risk-adjusted value	25.0	7.4
Fair value	-7.8	2.7
Option contracts		
Bought		
Underlying instrument, absolute value	263.5	38.3
Underlying instrument, risk-adjusted value	64.9	-8.3
Fair value	-2.0	0.1
Sold		
Underlying instrument, absolute value	318.7	57.4
Underlying instrument, risk-adjusted value	-85.0	6.0
Fair value	-3.9	0.5
Swap contracts		
Underlying instrument, absolute value	1,360.0	1,000.6
Underlying instrument, risk-adjusted value	1,360.0	1,000.6
Fair value	4.9	3.1
<b>Total</b>		
<b>Underlying instrument, absolute value</b>	<b>24,627.7</b>	27,650.3
<b>Underlying instrument, risk-adjusted value</b>	<b>-13,930.8</b>	-9,433.2
<b>Fair value</b>	<b>-86.6</b>	232.4

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 2019. Swap contracts have longer durations and will mature between 2020 and 2037.

## 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	SEK	NOK	USD	SEK	NOK
	2018	2018	2018	2017	2017	2017
Foreign-currency-denominated investments	22,152.2	1,057.4	349.9	22,963.1	693.3	349.8
of which investments left unhedged against currency risk	8,487.5	842.6	185.8	10,410.5	498.5	214.0
of which investments hedged against currency risk	13,664.7	214.8	164.1	12,552.6	194.8	135.8
Hedging currency derivatives	-13,736.1	-172.1	-60.7	-12,471.9	-192.3	-93.6
Non-hedging currency derivatives	-213.9	400.3	98.0	-290.2	148.2	504.0
Open currency position	8,202.2	1,285.7	387.2	10,201.1	649.3	760.3
Hedging ratio according to the hedging policy	101%	80%	37%	99%	99%	69%

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	2018	2017
<b>Investment commitments</b>		
Private equity funds	2,804.9	2,169.9
Other funds	1,703.2	1,501.9
<b>Pension liabilities</b>		
Pension commitments (recognised as debt)	1.4	1.5
<b>Leasing and renting liabilities</b>		
Expiring next year	0.6	0.6
Expiring later	0.7	0.6
<b>Other liabilities</b>		
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.	-2.1	1.9
Obligation to verify VAT allowances of real estate investments	36.7	44.3
Security to meet shareholder agreements' terms and conditions	10.0	
<b>Loaned securities</b>		
Bonds		
Nominal value	1,748.2	1,790.9
Remaining acquisition cost	1,757.2	1,827.8
Fair value	1,760.6	1,853.5
Equities		
Remaining acquisition cost	901.0	411.8
Fair value	924.1	450.4

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	2018	2017	2016	2015
<b>ASSETS</b>				
Investments	<b>44,015</b>	45,409	42,852	41,293
Receivables	<b>858</b>	747	604	654
Equipment	<b>4</b>	5	4	11
	<b>44,878</b>	46,161	43,460	41,958
<b>LIABILITIES</b>				
Capital and reserves	<b>130</b>	124	118	113
Valuation differences	<b>8,004</b>	9,147	9,625	9,755
Equalisation provision	<b>0</b>	0	1,034	1,171
Provision for future bonuses	<b>1,486</b>	2,265	-578	-1,083
Off-balance sheet liabilities	<b>-1</b>	-1	0	0
Total solvency capital	<b>9,619</b>	11,534	10,199	9,956
Provision for current bonuses (for client bonuses)	<b>154</b>	162	122	115
Equity-linked provision for current and future bonuses	<b>-255</b>	769	324	1,402
Actual technical provision	<b>35,137</b>	33,501	32,599	30,260
Total	<b>34,882</b>	34,270	32,923	31,662
Other liabilities	<b>224</b>	195	215	225
	<b>44,878</b>	46,161	43,460	41,958

### Income statement at fair value, Parent Company

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

<sup>1</sup> 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 prin-

ciples. As part of the company's internal control function, the Board deals with such matters as the company's strategy, basic strategies connected with organisational 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.

Risks 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.

Managers are responsible for organising internal control, risk management, the legal compliance function and good governance in their areas. This ensures that internal control is fully integrated into company operations. 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 data security management are defined in the data security policy approved by the IT Executive Group. 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 operational and other 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, maintaining workability, securing pensions and retiring. Essential risks are related to investments, infor-

mation 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 Other 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.

### 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 80% 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 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. The calculation of the technical provisions in the Financial Statements is based on estimates. As of the beginning of 2019, information required for the calculation of technical provisions will also be obtained from the Incomes Register. This will bring the calculation closer to real time and eliminate the need for separate annual calculations.

According to the calculation, the structure of Varma's technical provisions on 31 December 2018 was as follows:

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. In drawing up the financial statements, in particular the estimate of the insured's payroll may deviate from the final sum. This is reflected in the company's premium income and in the amount of technical provisions, but has little effect on the company's result.

The risks involved in technical provisions and the assets covering technical provisions, i.e. insurance and investment risks, are pro-

vided 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 (15% in 2017, and 20% from 1 January 2018) 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

### Technical provisions 31 Dec 2018

	€ million	%
<b>TyEL basic insurance</b>		
Provision for unearned premiums		
Future pension liabilities	17,320.2	47.4%
Provision for future bonuses	1,485.9	4.1%
Provision for current bonuses	154.0	0.4%
Equity-linked provision for current and future bonuses	-255.3	-0.7%
<b>Total provision for unearned premiums</b>	<b>18,704.8</b>	<b>51.2%</b>
Provision for claims outstanding		
Current pension liabilities	17,321.7	47.4%
<b>Total provision for claims outstanding</b>	<b>17,321.7</b>	<b>47.4%</b>
<b>TyEL basic pension insurance, total</b>	<b>36,026.5</b>	<b>98.6%</b>
<b>TEL compliant supplementary pension insurance, total</b>	<b>476.9</b>	<b>1.3%</b>
<b>YEL basic pension insurance, total</b>	<b>18.0</b>	<b>0.0%</b>
<b>YEL compliant supplementary pension insurance, total</b>	<b>0.0</b>	<b>0.0%</b>
<b>Total technical provisions</b>	<b>36,521.4</b>	<b>100.0%</b>

provisions, helps 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 company'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 corporate 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 2018 are presented in the Notes to the Financial Statements.

Geographical allocation of investments in listed equities:

	Risk position 31 Dec 2018 € million	%	Risk position 31 Dec 2017 € million	%
American equities	3,246	23.7	6,019	35.9
European equities	2,545	18.6	3,306	19.7
Other areas	2,549	18.6	2,212	13.2
Finnish equities	5,373	39.2	5,216	31.1
Listed equities	13,713	100.0	16,753	100.0

Direct investments in real estate according to purpose of use:

	Risk position 31 Dec 2018 € million	%	Risk position 31 Dec 2017 € million	%
Residential premises	821	28.4	778	27.8
Business premises	547	18.9	548	19.6
Other premises	436	15.0	398	14.2
Industrial and warehouse premises	124	4.3	128	4.6
Office premises	967	33.4	945	33.8
Direct real estate investments	2,895	100.0	2,797	100.0

The vacancy rate of business premises was 5.3% (7.0%).

Bonds according to credit rating:

	Market value (excl. derivatives) 31 Dec 2018		Market value (excl. derivatives) 31 Dec 2017	
	€ million	%	€ million	%
AAA	363	3.4	340	3.4
AA	1,691	15.9	1,891	18.9
A	1,661	15.6	1,364	13.7
BBB+ - BBB-	2,697	25.4	3,088	30.9
BBB or lower	3,082	29.0	2,638	26.4
Not rated	1,125	10.6	662	6.6
	<b>10,619</b>	<b>100.0</b>	9,981	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 24,835 (25,344) million, accounting for 56% (56%) of all investments. The investments' currency risk is partly hedged through currency derivatives. The open currency position amounted to EUR 10,497 (12,865) million on 31 December 2018.

Varma's largest individual corporate risk position is in Sampo Plc, the market value of which was EUR 876 (1,395) 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	Effect	Effect	Effect
	31 Dec 2018	Share prices -30 %	Interest rates +100 bp	Real estate -10 %
Solvency capital, € million	9,619	5,522	9,233	9,232
% of technical provisions	127.5	116.8	126.4	126.4
in relation to solvency limit	1.6 times	1.2 times	1.6 times	1.6 times
Return on investments, %, 1 Jan-31 Dec 2018	-2.0	-15.5	-2.8	-2.8

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 1,777 million (EUR 1,218 million) at year-end 2018. 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 2,120 (1,453) 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.

### Other risks

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. Aggregate demand is expected to decline.

The economic recovery has also shown as an improvement in the employment rate. The labour market still faces major issues in terms of a mismatch between supply and demand, which may cause bottlenecks in sustaining a good employment rate. The period of strong growth was not sufficient to close the gap in public finances. This will be highlighted in the coming years, 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. Experiences with the reform have been positive.

The long-standing global economic growth seemed to dwindle towards the end of 2018, and forecasts concerning economic performance have become more cautious. The end of 2018 was characterised by restlessness, and the markets have been seeking a new direction as they reacted to changes in central banks' monetary policies, tensions in international trade and questions relating to the UK's EU membership. 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 manages other risks in close co-operation with its stakeholders and other players in the sector and is developing its processes so that it can react to any changes in the earnings-related pension system on time.

### 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

1. the payment of pensions is jeopardised,
2. the financing of pensions and liquidity management become more difficult,
3. the implementation of processes during exceptional circumstances does not happen quickly enough,
4. bank systems, investment trading systems or other societal infrastructures fail to work,
5. the earnings-related pension systems, telecommunication lines or co-ordination within the sector fail to work
6. our own IT applications or networks fail to work, stoppage of services provision,
7. counterparty risks and the invalidity of contracts under exceptional circumstances, and
8. 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.

### 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	2018	2017	2016	2015	2014
Premiums written, € million	<b>5,118.0</b>	4,867.4	4,675.1	4,576.4	4,343.6
Pensions paid and other payments made, € million	<b>5,404.1</b>	5,247.8	5,004.7	4,834.6	4,660.7
Net investment income at fair value, € million	<b>-902.2</b>	3,342.7	1,952.7	1,681.8	2,699.0
Net return on invested capital, %	<b>-2.0</b>	7.8	4.7	4.2	7.1
Turnover, € million	<b>5,383.2</b>	8,707.7	6,793.2	4,748.5	5,480.0
Total operating expenses, € million	<b>124.8</b>	129.3	137.9	144.6	142.0
Total operating expenses of turnover, %	<b>2.3</b>	1.5	2.0	3.0	2.6
Operating expenses covered by the expense loading (% of TyEL and YEL payroll)	<b>0.4</b>	0.4	0.5	0.5	0.5
Total result, € million	<b>-1,741.0</b>	1,523.8	456.9	-163.6	1,223.0
Technical provisions, € million	<b>36,521.4</b>	36,696.2	33,501.3	31,865.6	32,069.7
Solvency capital, € million	<b>9,618.6</b>	11,534.4	10,199.5	9,956.1	10,252.5
in relation to solvency limit	<b>1.6</b>	1.7	1.9	1.9	2.2
Pension assets, € million	<b>44,636.0</b>	45,947.7	43,127.2	41,628.5	40,297.5
of technical provisions, %	<b>127.5</b>	133.5	130.9	131.4	134.0
Transfer to client bonuses of TyEL payroll, %	<b>0.75</b>	0.83	0.64	0.63	0.66
TyEL payroll, € million	<b>20,384.8</b>	19,366.7	18,834.8	18,367.4	17,826.9
YEL payroll, € million	<b>797.0</b>	802.0	830.6	870.8	894.4
TyEL policies	<b>26,030</b>	25,575	26,120	27,150	27,200
TyEL insured persons	<b>523,270</b>	501,320	493,890	486,960	488,200
YEL policies	<b>36,700</b>	35,900	36,000	37,380	38,940
Pensioners	<b>343,400</b>	342,600	340,100	337,100	334,500

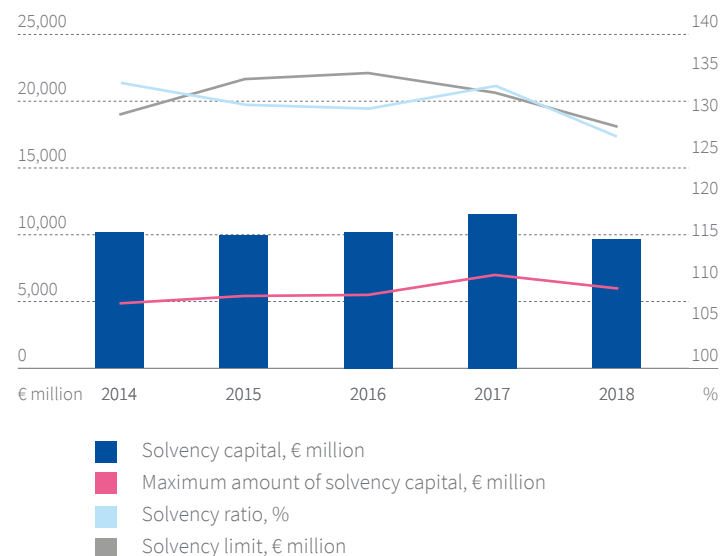
## 34. Performance analysis

31 Dec, € million	2018	2017	2016	2015	2014
<b>Sources of profit</b>					
Technical underwriting result	<b>22.9</b>	33.8	-37.8	22.9	64.1
Investment surplus at fair value	<b>-1,815.7</b>	1,453.2	441.5	-220.0	1,125.6
+ Net investment income at fair value	<b>-902.3</b>	3,342.7	1,952.7	1,681.9	2,699.0
- Return requirement on technical provisions	<b>-913.4</b>	-1,889.5	-1,511.2	-1,901.9	-1,573.4
Loading profit	<b>55.9</b>	44.7	39.0	36.1	33.4
Other result	<b>-4.1</b>	-7.9	14.3	-2.6	-0.1
Total result	<b>-1,741.0</b>	1,523.8	456.9	-163.6	1,223.0
<b>Appropriation of profit</b>					
Change in solvency	<b>-1,894.0</b>	1,362.8	335.3	-278.6	1,106.0
Change in equalisation provision included in the solvency capital	<b>0.0</b>	0.0	-38.5	22.9	61.9
Change in provision for future bonuses	<b>-757.1</b>	1,834.8	504.4	-1,843.6	-548.6
Change in difference between fair value and book value	<b>-1,143.7</b>	-477.9	-136.9	1,535.1	1,586.8
Profit for the financial year	<b>6.8</b>	5.9	6.2	7.1	5.9
Change in the equalisation provision	<b>0.0</b>	0.0	0.7	0.0	0.0
Transfer to client bonuses	<b>153.0</b>	161.0	121.0	115.0	117.0
Total	<b>-1,741.0</b>	1,523.8	456.9	-163.6	1,223.0

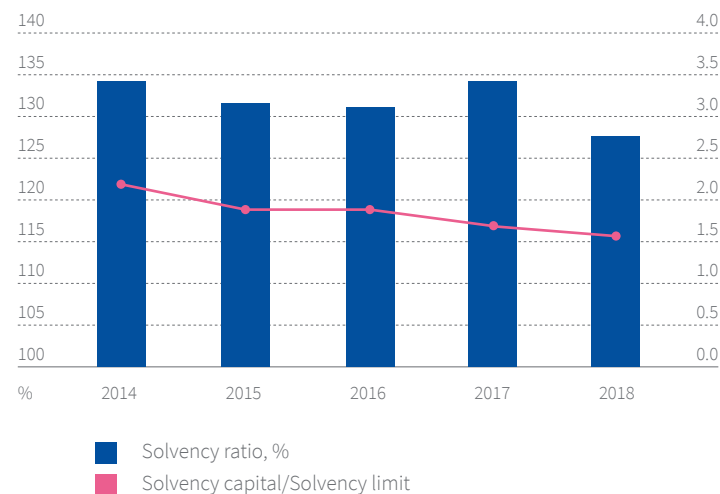
### 35. Solvency

Solvency capital and limits	2018	2017	2016	2015	2014
Solvency limit, € million	<b>5,973</b>	6,820	5,455	5,348	4,750
Maximum amount of solvency capital, € million	<b>17,918</b>	20,459	21,819	21,393	19,001
Solvency capital, € million	<b>9,619</b>	11,534	10,199	9,956	10,252
Solvency capital (solvency ratio), %	<b>127.5</b>	133.5	130.9	131.4	134.0
Solvency position, %	<b>1.6</b>	1.7	1.9	1.9	2.2

### Solvency capital and limits



### Solvency capital/Solvency limit



## 36. Investment allocation at fair value

	Market value 2018 € million	%	Market value 2017 € million	%	Risk position 2018 € million	%	Risk position 2017 %	Risk position 2016 %	Risk position 2015 %	Risk position 2014 %
<b>Fixed-income investments</b>	<b>13,522.1</b>	<b>30.7</b>	13,480.7	29.7	<b>10,568.3</b>	<b>24.0</b>	27.7	42.2	29.7	32.1
Loan receivables	<b>1,817.5</b>	<b>4.1</b>	1,452.7	3.2	<b>1,817.5</b>	<b>4.1</b>	3.2	3.3	3.3	3.9
Bonds	<b>10,624.5</b>	<b>24.1</b>	10,027.5	22.1	<b>9,030.8</b>	<b>20.5</b>	23.1	29.8	21.2	26.5
Other money-market instruments and deposits	<b>1,080.1</b>	<b>2.5</b>	2,000.5	4.4	<b>-279.9</b>	<b>-0.6</b>	1.4	9.0	5.2	1.7
<b>Equity investments</b>	<b>17,915.8</b>	<b>40.7</b>	20,426.6	45.0	<b>18,221.8</b>	<b>41.4</b>	45.6	43.2	44.7	40.8
Listed equities	<b>13,407.0</b>	<b>30.5</b>	16,492.5	36.3	<b>13,713.0</b>	<b>31.2</b>	36.9	34.5	36.2	32.2
Private equities	<b>4,254.5</b>	<b>9.7</b>	2,767.0	6.1	<b>4,254.5</b>	<b>9.7</b>	6.1	6.5	6.3	6.1
Unlisted equities	<b>254.3</b>	<b>0.6</b>	1,167.1	2.6	<b>254.3</b>	<b>0.6</b>	2.6	2.2	2.2	2.5
<b>Real estate investments</b>	<b>3,878.8</b>	<b>8.8</b>	3,602.0	7.9	<b>3,878.8</b>	<b>8.8</b>	7.9	8.5	9.5	9.6
Direct real estates	<b>2,895.3</b>	<b>6.6</b>	2,796.9	6.2	<b>2,895.3</b>	<b>6.6</b>	6.2	6.8	8.0	8.4
Real estate funds	<b>983.5</b>	<b>2.2</b>	805.1	1.8	<b>983.5</b>	<b>2.2</b>	1.8	1.7	1.4	1.2
<b>Other investments</b>	<b>8,698.6</b>	<b>19.8</b>	7,900.0	17.4	<b>10,036.6</b>	<b>22.8</b>	19.6	17.1	16.9	17.7
Hedge funds	<b>8,703.4</b>	<b>19.8</b>	7,886.4	17.4	<b>8,703.4</b>	<b>19.8</b>	17.4	16.8	16.1	16.8
Commodities	<b>-7.7</b>	<b>0.0</b>	10.7	0.0	<b>25.5</b>	<b>0.1</b>	0.4	0.3	0.9	0.9
Other investments	<b>2.9</b>	<b>0.0</b>	2.9	0.0	<b>1,307.7</b>	<b>3.0</b>	1.9	0.0	-0.1	0.0
<b>Investments</b>	<b>44,015.2</b>	<b>100.0</b>	45,409.4	100.0	<b>42,705.4</b>	<b>97.0</b>	100.8	111.0	100.8	100.2
Impact of derivatives					<b>1,309.8</b>	<b>3.0</b>	-0.8	-11.0	-0.8	-0.2
<b>Investments at fair value</b>	<b>44,015.2</b>	<b>100.0</b>	45,409.4	100.0	<b>44,015.2</b>	<b>100.0</b>	100.0	100.0	100.0	100.0
<b>Modified duration of the bond portfolio</b>		<b>2.8</b>								



## 37. Investment return breakdown and result

	Net return on invested capital, market value 2018 € million	Invested capital 2018 € million	Return on invested capital 2018 %	Return on invested capital 2017 %	Return on invested capital 2016 %	Return on invested capital 2015 %	Return on invested capital 2014 %
<b>Return on invested capital, €/%</b>							
<b>Fixed-income investments</b>	<b>-246.8</b>	<b>13,672.6</b>	<b>-1.8</b>	3.7	4.2	-0.4	5.8
Loan receivables	59.2	1,602.4	3.7	2.2	4.2	2.4	2.6
Bonds	-305.1	10,656.4	-2.9	5.4	5.3	-0.9	7.1
Other money-market instruments and deposits	-0.9	1,413.8	-0.1	-1.9	-0.4	0.5	0.5
<b>Equity investments</b>	<b>-716.3</b>	<b>20,105.1</b>	<b>-3.6</b>	11.4	6.4	8.8	9.1
Listed equities	-1,343.7	16,239.5	-8.3	11.6	4.5	8.0	7.4
Private equity	614.1	3,515.3	17.5	7.9	11.2	7.8	13.5
Unlisted equities	13.3	350.3	3.8	18.5	23.7	21.2	19.7
<b>Real estate investments</b>	<b>205.1</b>	<b>3,702.1</b>	<b>5.5</b>	4.9	-0.9	3.3	3.8
Direct real estates	109.7	2,799.7	3.9	2.9	-2.6	2.3	3.2
Real estate funds	95.4	902.4	10.6	12.0	6.8	9.9	8.0
<b>Other investments</b>	<b>-113.4</b>	<b>8,211.4</b>	<b>-1.4</b>	9.3	5.3	3.5	8.7
Hedge funds	127.6	8,138.8	1.6	8.5	5.6	3.9	7.8
Commodities	-24.5	4.4					
Other investments	-216.5	68.1					
<b>Investments</b>	<b>-871.4</b>	<b>45,691.1</b>	<b>-1.9</b>	7.8	4.8	4.3	7.2
Unallocated income, costs and operating expenses from investment activities	-30.9	16.8					
<b>Net investment income at fair value</b>	<b>-902.3</b>	<b>45,707.8</b>	<b>-2.0</b>	7.8	4.7	4.2	7.1

### 38. Loading profit

31 Dec, € million	2018	2017	2016	2015	2014
Expense loading components included in contributions	<b>133.1</b>	127.6	132.6	132.0	126.2
Components available to cover operating expenses arising from compensation decisions	<b>6.9</b>	6.1	6.7	6.8	5.5
Other returns	<b>1.2</b>	0.4	0.3	0.9	0.9
Total loading income	<b>141.2</b>	134.1	139.6	139.8	132.6
Operating expenses covered by loading income <sup>1</sup>	<b>-85.4</b>	-89.4	-100.6	-103.7	-99.1
Total operating expenses	<b>-85.4</b>	-89.4	-100.6	-103.7	-99.1
<b>Loading profit</b>	<b>55.9</b>	44.7	39.0	36.1	33.4
Operating expenses in relation to loading income, %	<b>60</b>	67	72	74	75

<sup>1</sup> Excluding operating expenses related to investments and maintenance of workability and statutory charges.

### 39. Workability maintenance expenses

31 Dec, € million	2018	2017	2016	2015	2014
Premiums written; the administrative cost component of the disability risk	<b>6.3</b>	5.9	5.7	5.6	5.4
Expenses covered by the administrative cost component of the disability risk, entered under claims incurred, %	<b>6.3</b>	5.9	5.7	6.1	6.5
Expenses arising from the management of the disability risk, entered under operating expenses and covered by the expense loading <sup>2</sup>	<b>0.1</b>	4.6	8.2	11.1	7.9
Expenses covered by the administrative cost component of workability maintenance/The administrative cost component of the disability risk, %	<b>100.0</b>	100.0	99.7	109.5	120.5

<sup>2</sup> 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	2018	2017	2016	2015	2014
Premium income from underwriting business under the company's own account	<b>945.0</b>	759.9	655.0	691.7	690.6
Interest rate on the technical provisions of the underwriting business under the company's own account	<b>892.3</b>	839.3	812.1	806.8	769.3
Underwriting income	<b>1,837.3</b>	1,599.2	1,467.1	1,498.4	1,459.9
Pensions paid out of funds	<b>1,227.7</b>	1,137.2	1,087.4	1,023.5	968.6
Contribution losses	<b>14.1</b>	10.4	18.5	16.3	16.4
Change in the technical provisions of the underwriting business under the company's own account	<b>572.7</b>	417.9	399.0	435.7	410.8
Total claims incurred	<b>1,814.4</b>	1,565.4	1,504.9	1,475.5	1,395.8
<b>Technical underwriting result</b>	<b>22.9</b>	33.8	-37.8	22.9	64.1

# DISTRIBUTION OF PROFIT

Distributable profits as presented in the notes to the financial statements 118,535,061.44 euros

The Board of Directors proposes that the profit for the year be distributed as follows: 6,833,211.98 euros

to be transferred to the contingency fund (optional reserve)	5,300,000.00 euros
to be paid as interest on guarantee capital	656,773.85 euros
to be carried over on the Profit and Loss Account	876,438.13 euros

Helsinki, 14 February 2019

Jari Paasikivi, Chairman of the Board

Antti Palola	Kai Telanne	Riku Aalto
Eila Annala	Johanna Ikäheimo	Rolf Jansson
Ari Kaperi	Jyri Luomakoski	Petri Niemisvirta
Ilkka Oksala	Pekka Piispanen	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, 2018. The financial statements comprise the balance sheet, income statement, cash flow statement and notes.

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 company 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 8 to the financial statements.

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

#### Most significant assessed risks of material misstatement

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

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

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

**ASSESSED SIGNIFICANT RISK OF MATERIAL MISSTATEMENT**

**HOW OUR AUDIT ADDRESSED THE RISK**

**Valuation of real estate investments**

The accounting principles applied on the valuation of investments are disclosed in the Accounting principles section and in more detail in then notes 10-16 and 18-21.

In accordance with its accounting principles, Varma values the real estate investments in its bookkeeping to the lower of acquisition cost less depreciation and fair value.

In addition to its accounting principles Varma reports as part of its financial statements its investments and their net return at fair value. Reported fair values in respect of the real estate investments are based on valuation models defined by the management. Applying these valuation models involves management judgment and estimates as the models are based on assumptions relating to market or economic conditions extending to the future. Changes in individual assumptions within the model may significantly impact the valuation of a single investment.

Our audit procedures in this respect were as follows:

- We evaluated the overall appropriateness of the approach by the management in defining the fair values.
- We tested internal controls which ensure the accuracy of the key source information used in the valuation models in respect of the real estates.
- We audited the accuracy of the management's valuation models and compared the key assumptions applied by the management to the information obtained by us from independent sources.
- We evaluated the proficiency and objectivity of the external real estate valuator used by the management.
- In addition, we assessed the appropriateness of the disclosures in respect of the investments.

**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 Direc-

tor'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.

### 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, 28 February 2019

### Antti Suominen

Authorized Public Accountant

### Robert Söderlund

Authorized Public Accountant

# VARMA

[www.varma.fi/annualreport](http://www.varma.fi/annualreport)