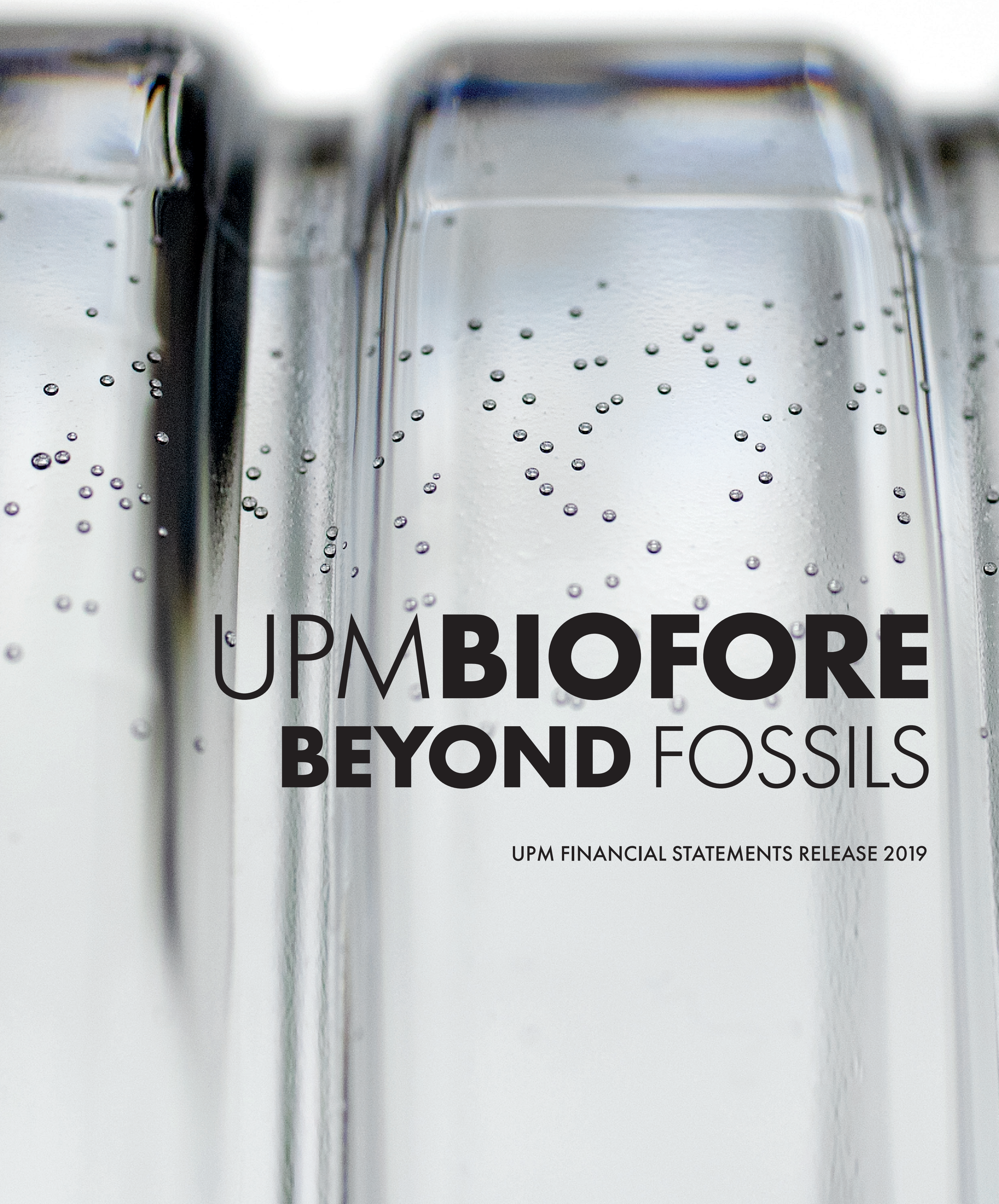
UPM



UPM**BIOFORE**
BEYOND FOSSILS

UPM FINANCIAL STATEMENTS RELEASE 2019

UPM financial statements release 2019:

UPM reports good performance and record cash flow - Uruguay investment drives significant future earnings growth

Q4 2019 highlights

- Sales decreased by 10% to EUR 2,447 million (2,731 million in Q4 2018) due to lower pulp price and lower deliveries of graphic papers
- Comparable EBIT decreased by 15% to EUR 343 million (404 million)
- Record quarterly operating cash flow at EUR 592 million (384 million)
- Net debt decreased to EUR -453 million (-311 million at the end of 2018, before adoption of IFRS 16 Leases)
- Record cash flow in UPM Communication Papers and UPM Raflatac, record comparable EBIT in UPM Specialty Papers
- UPM Specialty Papers expansion at UPM Changshu was completed, and the ramp-up of the converted paper machine at UPM Nordland started
- UPM announced an investment in Combined Heat and Power (CHP) plant at UPM Nordland paper mill in Germany

2019 highlights

- Sales decreased by 2% to EUR 10,238 million (10,483 million in 2018)
- Comparable EBIT decreased by 7% to EUR 1,404 million (1,513 million)
- Record annual operating cash flow at EUR 1,847 million (1,330 million)
- The Board proposes a dividend of EUR 1.30 (1.30) per share, 38% of operating cash flow per share
- UPM announced a USD 2.7 billion investment in a 2.1 million tonne eucalyptus pulp mill near Paso de los Toros, Uruguay
- UPM reduced a total of 620,000 tonnes of graphic paper capacity in 2019 and started a consultation process for selling or closing further 240,000 tonnes of newsprint capacity
- UPM was selected as UN Global Compact LEAD participant and received several top recognitions for its sustainability performance including Dow Jones Sustainability Index, MSCI AAA rating and CDP A listing

Key figures

	Q4/2019	Q4/2018	Q3/2019	Q1–Q4/2019	Q1–Q4/2018
Sales, EURm	2,447	2,731	2,493	10,238	10,483
Comparable EBITDA, EURm [1]	442	473	455	1,851	1,868
% of sales [1]	18.1	17.3	18.2	18.1	17.8
Operating profit, EURm	336	744	316	1,344	1,895
Comparable EBIT, EURm	343	404	342	1,404	1,513
% of sales	14.0	14.8	13.7	13.7	14.4
Profit before tax, EURm	324	731	319	1,307	1,839
Comparable profit before tax, EURm	331	390	345	1,367	1,457
Profit for the period, EURm	263	591	260	1,073	1,496
Comparable profit for the period, EURm	261	319	281	1,119	1,194
Earnings per share (EPS), EUR	0.50	1.11	0.46	1.99	2.80
Comparable EPS, EUR	0.49	0.60	0.50	2.07	2.24
Return on equity (ROE), %	10.5	24.9	10.7	10.7	16.2
Comparable ROE, %	10.4	13.4	11.6	11.2	12.9
Return on capital employed (ROCE), %	11.9	28.8	12.0	12.3	18.4
Comparable ROCE, %	12.2	15.5	12.9	12.8	14.6
Operating cash flow, EURm [1]	592	384	500	1,847	1,330
Operating cash flow per share, EUR [1]	1.11	0.72	0.94	3.46	2.49
Equity per share at the end of period, EUR	18.87	18.36	18.28	18.87	18.36
Capital employed at the end of period, EURm	11,474	10,575	11,172	11,474	10,575
Net debt at the end of period, EURm	-453	-311	-2	-453	-311
Net debt to EBITDA (last 12 months) [1]	-0.24	-0.17	0.00	-0.24	-0.17
Personnel at the end of period	18,742	18,978	19,020	18,742	18,978

[1] 2018 comparative figures have been restated due to accounting policy change of forest renewal costs. Refer to *» Basis of preparation and accounting policies.*
UPM presents certain measures of performance, financial position and cash flows, which are alternative performance measures in accordance with the guidance issued by the European Securities and Markets Authority (ESMA). The definitions of alternative performance measures are presented in *» UPM Annual Report 2018*.

Jussi Pesonen, President and CEO, comments on Q4 and full year 2019 results:

"The year 2019 was a milestone year in UPM's strategic transformation. In July, we made the decision to build a highly competitive pulp mill in central Uruguay to drive a step change in UPM's future earnings, as well as in the scale of UPM's pulp business. At the same time, all our businesses continued developing product innovations beyond fossils. Biochemicals and biofuels businesses are at the forefront of this development.

In 2019, our business performance continued at a good level despite the slowing economic growth. We were able to maintain stable margins throughout the year and achieved a record-strong cash flow. This was a good achievement given the erosion of our product prices during the second half of the year.

Our 2019 sales decreased by 2% and comparable EBIT fell by 7%. Our operating cash flow increased by more than half a billion euros to EUR 1,847 million and we finished the year with a record-low negative net debt of EUR -453 million. I would like to sincerely thank all UPMers for making 2019 a success.

In the fourth quarter of the year our sales decreased by 10%, mainly due to the fall in pulp sales prices and graphic paper deliveries. Margins and profits remained at the level of the two previous quarters, but comparable EBIT decreased by 15% from Q4 in the previous year. We achieved a new quarterly record with an operating cash flow of EUR 592 million.

UPM Biorefining continued to experience good customer demand for pulp, renewable biofuels and timber. However, its earnings were affected by substantially lower pulp prices, as expected. The best performer of this business area was UPM Biofuels. Lappeenranta Biorefinery, which has been important in breaking new ground for UPM, celebrated five years of commercial production at the beginning of 2020.

UPM Communication Papers had an excellent quarter and enjoyed a sweet spot of stable contract prices and decreased variable costs. However, the slow economic environment in 2019 impacted the demand for paper, which declined faster than in previous years.

To adjust to customer demand, UPM reduced its graphic paper capacity by 620,000 tonnes during the second half of the year through closures at UPM Plattling, Germany, and UPM Rauma, Finland, and through the conversion at UPM Nordland, Germany. At UPM Chapelle, France, there are ongoing sales and employee consultation processes concerning a potential further reduction of 240,000 tonnes of newsprint.

Despite the decline in demand, the graphic paper market continues to have significant volumes. We are committed to profitable business and will serve our customers from our most competitive units and geographies. Our track record in managing our own operations is strong. However, the competitiveness of the operating environment is also decisive.

Customer demand for UPM Specialty Papers was good. The business achieved record comparable EBIT, supported by lower input costs and several initiatives on fixed costs. The release liner capacity expansion at UPM Changshu, China, started production ahead of schedule in December, and the conversion of PM2 to release liner at UPM Nordland is currently ramping up.

UPM Energy delivered strong earnings supported by improved hydropower generation. For UPM Raflatac, the fourth quarter saw good margin management and record cash flow. However, UPM Plywood ended the year on a negative note with weakening demand, declining prices and industrial action in December.

In January we announced our commitment to the United Nations Global Compact's Business Ambition for 1.5°C. UPM has a unique opportunity to make a positive impact and contribute to limiting the climate change. We innovate climate-positive products and turn them into growing businesses. Furthermore, we will limit risks from climate mitigation policies and physical impacts of changing climate. This is important for the long-term value of the company.

We have many things to look forward to in 2020. We have exciting transformative projects either in progress or in planning, which will drive the company's future earnings and value. In Uruguay, our project for the new world-class pulp mill is proceeding as planned. Last week, UPM and Andritz Group signed a preliminary agreement under which Andritz is to supply us with energy-efficient and environmentally leading pulp-production technologies.

UPM's financial position is exceptionally strong, which enables us to make these opportunities real. At the same time, we are in a position to pay an attractive dividend to our shareholders.

UPM's Board of Directors has today proposed a dividend of EUR 1.30 (1.30) per share for 2019, representing 38% of operating cash flow per share. The proposal reflects UPM's exceptional financial position and confidence in future cash generation.

Outlook for 2020

Global economic growth is expected to continue in 2020, albeit at a modest level. Growth is expected to be slow in Europe. Potential intensification or easing of trade tensions between major economic areas cause uncertainty to the business environment. These issues may impact UPM's product and raw material markets in 2020.

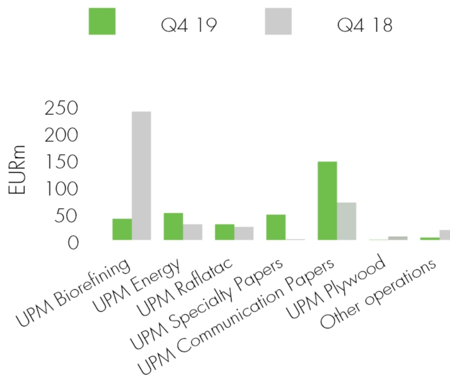
In 2020, robust demand is expected to continue for most UPM businesses, whereas demand decline is expected to continue for UPM Communication Papers.

In the beginning of the year 2020, paper prices are expected to decrease moderately, compared with Q4 2019. Pulp prices are starting the year 2020 at a low level, after the decreases that took place throughout the year 2019.

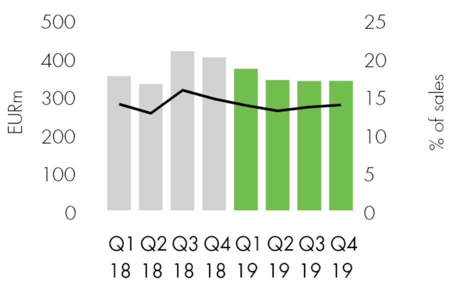
UPM will continue its actions to reduce fixed and variable costs. In 2020, the intensifying phase of UPM's transformative growth projects is expected to add project-related costs to the fixed costs.

UPM's comparable EBIT in H1 2020 is expected to be significantly lower than in H1 2019, due to lower sales prices, partly offset by decreases in variable costs. Comparable EBIT is expected to recover in H2 2020.

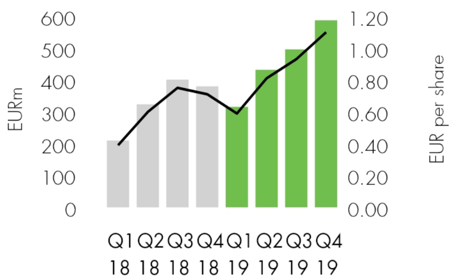
Comparable EBIT



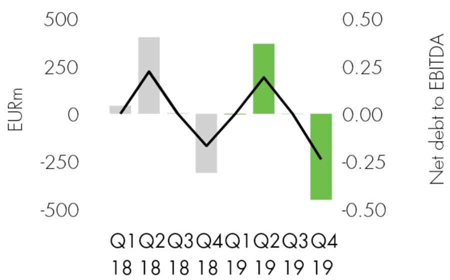
Comparable EBIT



Operating cash flow



Net debt and net debt to EBITDA



Adoption of IFRS 16 Leases

UPM adopted the IFRS 16 Leases standard on 1 January 2019 without restating prior years. The change in lease accounting has resulted in a reduction in operating costs (and therefore an increase in EBITDA), higher depreciation expenses and positive impact on operating profit. In addition, interest expenses have increased slightly. Cash generation was not impacted by the adoption of the standard. However, operating cash flow is positively impacted by it, given that a large part of the payments in relation to leases is now reported as financing cash flow (lease liability repayments).

As a consequence of the adoption of IFRS 16, 2019 operating costs have been EUR 83 million lower (driving the increase in EBITDA by the same amount), depreciation expenses have been EUR 65 million higher and interest expenses have been EUR 12 million higher. The increase in leased assets on 1 January 2019 was EUR 493 million and the increase in financial debt amounted to EUR 491 million. Leased assets are not included in the measure of Capital expenditure.

Results

Q4 2019 compared with Q4 2018

Q4 2019 sales were EUR 2,447 million, 10% lower than the EUR 2,731 million for Q4 2018. The decrease in sales was due to lower pulp sales prices and lower deliveries of graphic papers. Sales grew in UPM Energy, and decreased in UPM Biorefining, UPM Communication Papers, UPM Specialty Papers, UPM Plywood and UPM Raflatac.

Comparable EBIT decreased by 15% to EUR 343 million, which was 14.0% of sales (404 million, 14.8%).

Sales prices decreased across most of UPM's business areas. At the group level, changes in sales prices, mainly in pulp, contributed negatively to comparable EBIT and more than offset the positive impact of lower variable costs in all business areas.

Fixed costs decreased by EUR 28 million. Without the adoption of the IFRS 16 Leases standard, fixed costs would have been EUR 15 million higher (i.e. decreased by EUR 13 million). Delivery volumes decreased from last year, mainly for graphic papers.

Depreciation, excluding items affecting comparability, totalled EUR 120 million (105 million), including depreciation of leased assets totaling EUR 19 million (2 million). The change in the fair value of forest assets net of wood harvested, excluding items affecting comparability, was EUR 19 million (35 million).

Operating profit was EUR 336 million (744 million). Items affecting comparability in operating profit totalled EUR -7 million in the period (340 million). In 2018, this included a EUR 345 million increase in the fair value of forest assets in Finland.

Net interest and other finance income and costs were EUR -13 million (-15 million). Exchange rate and fair value gains and losses were EUR 1 million (1 million). Income taxes were EUR 61 million (139 million). Items affecting comparability in taxes totalled EUR 10 million (-68 million).

Profit for Q4 2019 was EUR 263 million (591 million), and comparable profit was EUR 261 million (319 million).

Q4 2019 compared with Q3 2019

Comparable EBIT increased by 0% to EUR 343 million, 14.0% of sales (342 million, 13.7%).

Sales prices decreased across most of UPM's business areas.

Fixed costs increased by EUR 57 million due to seasonal factors and the scheduled maintenance shutdown at the UPM Fray Bentos pulp mill. Variable costs were lower. Energy costs were seasonally low due to the annual energy-related refunds. Other variable costs decreased, with the largest contribution coming from lower pulp costs. Delivery volumes decreased slightly, mainly due to the scheduled maintenance shutdown at the UPM Fray Bentos pulp mill.

Depreciation, excluding items affecting comparability, totalled EUR 120 million (119 million). The change in the fair value of forest assets net of wood harvested was EUR 19 million (5 million).

Operating profit was EUR 336 million (316 million).

Full year 2019 compared with 2018

In 2019, sales were EUR 10,238 million, 2% lower than the EUR 10,483 million for 2018. The decrease in sales was mainly due to lower pulp sales prices and lower deliveries of graphic papers. Sales grew in UPM Raflatac and UPM Energy, and decreased in UPM Biorefining, UPM Communication Papers, UPM Plywood and UPM Specialty Papers.

Comparable EBIT decreased by 7% to EUR 1,404 million, 13.7% of sales (1,513 million, 14.4%).

Development in sales prices and variable costs differed between businesses. At the group level, the negative impact of lower sales prices was larger than the positive impact of lower variable costs.

Fixed costs decreased by EUR 65 million. Without the adoption of the IFRS 16 Leases standard fixed costs would have been EUR 57 million higher (i.e. decreased by EUR 8 million).

Delivery volumes decreased in UPM Communication Papers and UPM Plywood, remained unchanged in UPM Specialty Papers and grew in UPM Biorefining, UPM Raflatac and UPM Energy.

Depreciation, excluding items affecting comparability, totalled EUR 477 million (422 million) including depreciation of leased assets totalling EUR 72 million (7 million). The change in the fair value of forest assets net of wood harvested, excluding items affecting comparability, was EUR 26 million (63 million).

Operating profit was EUR 1,344 million (1,895 million). Items affecting comparability in operating profit totalled EUR -60 million in the period (382 million). This included EUR 58 million of restructuring charges in UPM Communication Papers and EUR 4 million in UPM Raflatac.

Net interest and other finance income and costs were EUR -38 million (-60 million). The exchange rate and fair value gains and losses were EUR 0 million (3 million). Income taxes were EUR 234 million (342 million).

Profit for 2019 was EUR 1,073 million (1,496 million), and comparable profit was EUR 1,119 million (1,194 million).

Financing and cash flow

In 2019 cash flow from operating activities before capital expenditure and financing totalled EUR 1,847 million (1,330 million). Working capital decreased by EUR 276 million during the period (increased by 209 million).

A dividend of EUR 1.30 per share (totalling EUR 693 million) was paid on 17 April 2019 in respect of the 2018 financial year.

Net debt decreased to EUR -453 million at the end of 2019 (-311 million). The gearing ratio as of 31 December 2019 was -4% (-3%). The net debt to EBITDA ratio, based on the latest 12 months' EBITDA, was -0.24 at the end of the period (-0.17).

On 31 December 2019 UPM's cash funds and unused committed credit facilities totalled EUR 1.5 billion.

Capital expenditure

In 2019, capital expenditure totalled EUR 378 million, 3.7% of sales (303 million, 2.9% of sales). Capital expenditure does not include additions to leased assets.

In 2020, UPM's total capital expenditure, excluding investments in shares and potential transformative prospects, is expected to be about EUR 1,200 million. This includes estimated capital expenditure of approximately EUR 900 million (USD 1,000 million) in Uruguay for the pulp mill, port operations and local investments outside the mill fence.

In April 2017 UPM announced plans to strengthen its position in the label market and invest approximately EUR 6 million in capacity for special labels in Tampere, Finland. A new special label product line has been built, focusing on small series production runs. In addition, internal logistics have been strengthened. The new product line was completed in January 2019.

In October 2017 UPM announced plans to expand its Chudovo plywood mill in Russia. The project has raised the mill's production capacity by 45,000 cubic metres to 155,000 cubic metres, while also broadening the mill's product portfolio. In addition to the growth in production capacity, a new bio-heat boiler has been built at the mill site. The total investment is EUR 50 million and was completed at the end of Q3 2019.

In April 2018 UPM announced that it would rebuild Paper Machine 2 at its Nordland mill in Dörpen, Germany, and convert it from fine paper to glassine paper production. The machine will be equipped with new finishing equipment and will start producing glassine paper in Q1 2020. The planned capacity after the rebuild is 110,000 tonnes per year. The total investment in Nordland is EUR 124 million.

In April 2018 UPM announced plans to increase release liner base paper capacity at the UPM Changshu mill in China. Installing a second supercalender on paper machine 3 will create an additional capacity of more than 40,000 tonnes of glassine paper per year. The investment was completed in Q4 2019. The total investment in Changshu is EUR 34 million.

In January 2019 UPM announced that it would invest in the refurbishment of the Kuusankoski hydropower plant in Finland. The average annual production of the Kuusankoski plant is expected to increase from the current 180 GWh to 195 GWh. The investment will be completed by the end of 2022.

In July 2019 UPM announced that it would invest USD 2,7 billion in a 2,1 million tonne greenfield eucalyptus pulp mill near Paso de los Toros in central Uruguay. Additionally, UPM will invest approximately USD 280 million in port operations in Montevideo and USD 70 million in local investments outside the mill fence, including a new residential area in Paso de los Toros. The mill is scheduled to start up in the second half of 2022.

In October 2019 UPM announced that it would invest EUR 95 million in a Combined-Heat-Power (CHP) plant at the UPM Nordland paper mill in Germany. The plant is planned to go on grid in Q3 2022. The annual cost savings of more than EUR 10 million will start as of 2023. The investment is estimated to decrease UPM's CO_2-footprint by 300,000 tonnes.

Personnel

In 2019, UPM had an average of 19,185 employees (19,271). At the beginning of the year, the number of employees was 18,978 and at the end of 2019 it was 18,742.

Uruguay pulp mill investment

On 23 July UPM announced that it would invest USD 2.7 billion in a 2.1 million tonne greenfield eucalyptus pulp mill near Paso de los Toros in central Uruguay. Additionally, UPM will invest approximately USD 280 million in port operations in Montevideo and USD 70 million in local investments outside the mill fence, including a new residential area in Paso de los Toros. The mill is scheduled to start up in the second half of 2022.

The investment will grow UPM's current pulp capacity by more than 50%, resulting in a step change in the scale of UPM's pulp business as well as in UPM's future earnings.

With a combination of competitive wood supply, scale, best available techniques and efficient logistics the mill is expected to reach a highly competitive cash cost level of approximately USD 280 per delivered tonne of pulp. This figure includes the variable and fixed costs of plantation operations, wood sourcing, mill operations and logistics delivered to the main markets. Furthermore, the safety and sustainability performance of the value chain from plantations to customer delivery is expected to be on an industry leading level.

Competitive wood supply

Eucalyptus availability for the mill is secured through UPM's own and leased plantations as well as through wood sourcing agreements with private partners. The plantations that UPM owns and leases in Uruguay cover 405,000 hectares. They will supply the current UPM Fray Bentos mill and the new mill near Paso de los Toros.

State of the art mill design

The pulp mill has been designed as an efficient single-line operation. The machines, materials, level of automation and standards enable a high operating rate and maintainability as well as high energy output, ensuring excellent safety, high environmental performance and low operating costs during the long lifecycle of the mill.

The mill is designed to fully meet the strict Uruguayan environmental regulations as well as international standards and recommendations for modern mills, including the use of latest and best available proven technology (BAT). The mill's environmental performance will be verified with comprehensive and transparent monitoring.

The mill's initial annual production capacity is 2.1 million tonnes, and the environmental permits enable further capacity potential. When in operation, the mill generates more than 110 MW surplus of renewable electricity.

Efficient logistics set-up

An efficient logistics chain will be secured by the agreed road improvements, extensive railway modernisation and port terminal construction.

The Public-Private-Partnership agreement between the government and the construction company for the construction of the central railway was signed in May 2019. Initial works on the central railway have been started and the financing of the construction consortium is finalised.

UPM has decided on the construction of a deep-sea pulp terminal in Montevideo port with an investment of approximately USD 280 million. Direct rail access from the mill to a modern deep-sea port terminal creates an efficient supply chain to world markets. The Montevideo deep-sea port also enables synergies in ocean logistics with UPM's existing Uruguay operations.

UPM has entered into a port terminal concession and plans to enter rail logistic services agreements both being under IFRS 16 Leases. The total amount of such lease payments is expected to be USD 200 million.

Significant impact on the Uruguayan economy

Based on independent socioeconomic impact studies, the mill is estimated to increase Uruguay's gross national product by about 2% and the annual value of Uruguay's exports by approximately 12% after completion.

In the most intensive construction phase, more than 6,000 people will be working on the site. When completed, approximately 10,000 permanent jobs are estimated to be created in the Uruguayan economy whereof approximately 4,000 would involve direct employment by UPM and its subcontractors. About 600 companies are estimated to be working in the value chain.

The mill will be located in one of Uruguay's many free trade zones and pay a fixed annual tax of USD 7 million per annum. The mill's value chain is expected to contribute USD 170 million in annual taxes and social security payments and contribute USD 200 million in wages and salaries annually.

Project schedule and capital outflow

The mill is expected to start up in the second half of 2022. The project is proceeding within the planned schedule. Preparations at the mill site are proceeding with earth works, fencing, lighting and road works. At the pulp terminal in Montevideo port the first phase of dredging is completed, and the back filling of the area has started.

The main part of the total capital expenditure of USD 3 billion will take place in 2020-2022. UPM will hold 91% ownership of the project and a local long-term partner which has also been involved in UPM Fray Bentos, owns 9%. UPM's investment will be mainly financed by operating cash flow complemented by regular group financing activities.

Biochemicals business development

UPM formed UPM Biochemicals in 2013 by combining its biochemical-related business initiatives. UPM Biochemicals offers and develops innovative, sustainable and competitive wood-based biochemicals. The product segments are biochemicals and lignin products. Development is at the pre-commercial phase, with UPM actively developing and testing industrial applications to create industrial-scale mill concepts.

In October 2017 UPM announced that it was evaluating the potential of building a biorefinery in Germany. Basic engineering of the potential biorefinery has been completed. The company is assessing two alternative industrial parks in Germany, in Frankfurt and in Leuna, to select the optimal set-up for the potential facility. The commercial studies also need to be concluded before UPM's regular process of analysing and preparing an investment decision commences.

OL3 power plant project

Teollisuuden Voima Oyj (TVO) is in the process of constructing a third nuclear power plant unit, OL3 EPR, at the Olkiluoto site (OL3). UPM participates in OL3 through its shareholding in Pohjolan Voima Oyj (PVO), which is the majority shareholder in TVO. UPM's indirect share of OL3 is approximately 31%. The OL3 plant supplier, a consortium consisting of AREVA GmbH, AREVA NP SAS and Siemens AG (the Supplier), is constructing OL3 as a turnkey project.

The start of regular electricity production, originally scheduled for April 2009, has been revised several times by the Supplier. As announced by TVO in December 2019, TVO received from Supplier information, regular electricity generation at OL3 would commence in March 2021.

According to Supplier, nuclear fuel will be loaded into the reactor in June 2020 and the first connection to the grid will take place in November 2020. According to the commissioning program, the unit will produce 1-3 terawatt hours with varying power levels during the test program, which will begin from the connection to the grid and will end to the beginning of regular electricity production.

When completed, OL3 will supply electricity to its shareholders on a cost-price principle (Mankala-principle) which is widely applied in the Finnish energy industry. Under the Mankala-principle electricity and/or heat is supplied to the shareholders in proportion to their ownership and each shareholder is, pursuant to the specific stipulations of the respective articles of association, severally responsible for its respective share of the production costs of the energy company concerned. OL3 will increase UPM Energy's electricity generation capacity significantly. The new power plant unit is expected to be highly efficient and meet the highest safety standards. Its power generation will be CO_2 -free and Olkiluoto will have a secure solution for the final disposal of used fuel.

Events during the year 2019

On 9 January UPM announced its participation in the international public tendering process in the port of Montevideo organised by the National Ports Administration (ANP) of Uruguay.

In March, ANP awarded UPM the concession in the port. The scope of the concession is the construction and operation of a port terminal specialised in the storage and shipping of pulp, chemicals and other inputs related to pulp production with a capacity to handle approximately 2 million tonnes of pulp annually. The tenure of the concession is to be 50 years.

On 31 January UPM announced that it would invest in the refurbishment of the Kuusankoski hydropower plant in Finland. The average annual production of the Kuusankoski plant is expected to increase from the current 180 GWh to 195 GWh. The investment will be completed by the end of 2022.

On 24 June UPM announced the decision to permanently close paper machine 10 at UPM Plattling, Germany, reducing the annual capacity of coated mechanical paper in Europe by approximately 155,000 tonnes. The paper machine was permanently closed in July 2019 and the number of persons affected is 155. UPM recognised restructuring charges of EUR 25 million as items affecting comparability in its 2019 results. The expected annual cost saving is approximately EUR 17 million.

On 17 July TVO announced it had received an updated schedule for the commissioning of the OL3 EPR plant unit from the Supplier. According to the received information, the regular electricity generation at the OL3 plant unit would start in July 2020.

On 23 July UPM announced that it would invest USD 2,7 billion in a 2,1 million tonne greenfield eucalyptus pulp mill near Paso de los Toros in central Uruguay. Additionally, UPM will invest approximately USD 280 million in port operations in Montevideo and USD 70 million in local investments outside the mill fence, including a new residential area in Paso de los Toros. The mill is scheduled to start up in the second half of 2022.

On 10 September UPM announced that it plans to permanently close SC paper machine 2 in Rauma, Finland and sell its Chapelle newsprint mill in Grand-Couronne, France, reducing the annual capacity of SC paper by 265,000 tonnes and newsprint by 240,000 tonnes. In addition, UPM announced that it plans to establish a new Business Services Hub in Wroclaw, Poland. In total 168 positions in 11 different locations would be affected. The hub is planned to be in full operation by the end of Q3 2020.

The employee consultation processes of paper machine 2 at UPM Rauma were completed on 5 November and the paper machine was permanently closed on 6 November. The number of personnel affected at UPM Rauma is 179. Related to the closure of Rauma PM2, UPM recognised restructuring charges of EUR 27 million, of which EUR 12 million as write-offs, as items affecting comparability in its 2019 results. It is estimated that 236 people will be affected by the plan at UPM Chapelle. On 28 January 2020 UPM announced that it has started the employee consultation processes for the potential closure of UPM Chapelle newsprint mill in Grand-Couronne, France. These consultations are estimated to be concluded by end of Q2 2020. UPM will continue the sales process of the mill throughout the consultation process.

On 24 October UPM announced that it would invest EUR 95 million in a Combined-Heat-Power (CHP) plant at UPM Nordland paper mill in Germany. The plant is planned to go on grid in Q3 2022.

On 19 December TVO announced that it had received an updated schedule for the commissioning of the OL3 EPR plant unit from the Supplier. According to the received information, OL3 EPR plant will be connected to the grid in November 2020 and the regular electricity generation at the OL3 plant unit will start in March 2021.

Events after the balance sheet date

On 27 January multiple Finnish labor unions started extensive three week labor actions in the Finnish forest industry. Consequently, production on all of UPM's Finnish pulp and paper mills, label stock mill as well as plywood and sawmills has stopped. UPM has prepared for the labor actions and strives to fulfill customer orders either from stocks or from the mills operating outside Finland.

On 27 January, UPM announced the commitment to the United Nations Global Compact's Business Ambition for 1.5°C, joining leading companies in a promise to pursue science-based measures to limit global temperature rise to 1.5°C. UPM will strive to mitigate climate change and drive value creation through innovating novel products, committing to a 65% CO_2 emission reduction from the 2015 levels by 2030 and by practicing sustainable forestry.

On 28 January UPM announced that it has started the employee consultation processes for the potential closure of UPM Chapelle newsprint mill in Grand-Couronne, France. These consultations are estimated to be concluded by end of Q2 2020. UPM will continue the sales process of the mill throughout the consultation process.

Dividend proposal for 2019

The Board of Directors proposes to the Annual General Meeting convening on 31 March 2020 that a dividend of EUR 1.30 per share be paid in respect of the 2019 financial year (1.30). The proposed dividend represents 38% of UPM's operating cash flow per share for the 2019. It is proposed that the dividend be paid on 16 April 2020. On 31 December 2019, the distributable funds of the parent company were EUR 3,968.8 million.

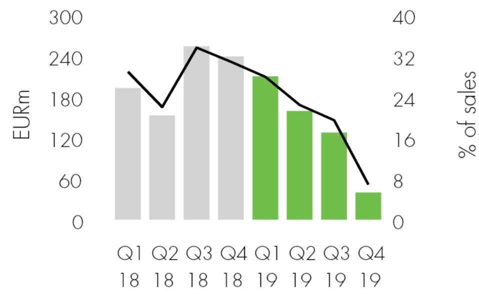
Timing of significant maintenance shutdowns in 2019 and 2020

TIMING	UNIT
Q2/2019	Kymi pulp mill
	Olkiluoto nuclear power plant
Q4/2019	Fray Bentos pulp mill
Q2/2020	Kaukas pulp mill
	Pietarsaari pulp mill
	Olkiluoto nuclear power plant

UPM Biorefining

UPM Biorefining consists of pulp, timber and biofuels businesses. UPM Pulp offers a versatile range of responsibly-produced pulp grades suitable for a wide range of end-uses such as tissue, specialty paper, graphic papers and board. UPM Timber offers certified sawn timber for construction, joinery and furniture. UPM Biofuels produces wood-based renewable diesel for all diesel engines and renewable naphtha that can be used as a biocomponent for gasoline or for replacing fossil raw materials in petrochemical industry, for example. UPM has three pulp mills in Finland and one mill and plantation operations in Uruguay. UPM operates four sawmills and one biorefinery in Finland.

Comparable EBIT



	Q4/19	Q3/19	Q2/19	Q1/19	Q4/18	Q3/18	Q2/18	Q1/18	Q1–Q4/19	Q1–Q4/18
Sales EURm	592	660	708	753	775	754	694	668	2,712	2,892
Comparable EBITDA, EURm [1)]	96	171	203	254	282	297	199	233	724	1,011
% of sales [1)]	16.3	25.9	28.6	33.8	36.4	39.3	28.6	34.9	26.7	35.0
Change in fair value of forest assets and wood harvested, EURm [1)]	-11	1	-1	-1	-3	-3	-6	0	-11	-12
Share of results of associated companies and joint ventures, EURm	1	1	1	1	0	1	0	0	2	2
Depreciation, amortisation and impairment charges, EURm	-44	-43	-42	-42	-39	-39	-39	-38	-171	-155
Operating profit, EURm	42	130	161	212	241	256	155	195	544	847
% of sales	7.1	19.7	22.7	28.2	31.1	33.9	22.3	29.2	20.1	29.3
Items affecting comparability in operating profit, EURm	—	—	—	—	—	—	—	—	—	—
Comparable EBIT, EURm	42	130	161	212	241	256	155	195	544	847
% of sales	7.1	19.7	22.7	28.2	31.1	33.9	22.3	29.2	20.1	29.3
Capital employed (average), EURm	3,436	3,468	3,491	3,481	3,267	3,224	3,153	3,074	3,469	3,180
Comparable ROCE, %	4.9	15.0	18.4	24.4	29.5	31.7	19.7	25.4	15.7	26.6
Pulp deliveries, 1000 t	943	979	877	915	912	870	835	850	3,715	3,468

Pulp mill maintenance shutdowns: Q4 2019 UPM Fray Bentos, Q2 2019 Kymi, Q4 2018 Pietarsaari, Q2 2018 UPM Fray Bentos and UPM Kaukas.

[1)] The 2018 comparative figures have been restated due to accounting policy change of forest renewal costs. Refer to *» Basis of preparation and accounting policies*

- Scheduled maintenance shutdown at UPM Fray Bentos pulp mill in Uruguay
- Strong performance for UPM Biofuels

Results

Q4 2019 compared with Q4 2018

Comparable EBIT for UPM Biorefining decreased due to lower pulp sales prices.

The average price in euro for UPM's pulp deliveries decreased by 31%.

Q4 2019 compared with Q3 2019

Comparable EBIT decreased mainly due to lower pulp sales prices. Fixed costs increased and deliveries decreased, mainly due to scheduled maintenance shutdown at UPM Fray Bentos pulp mill.

The average price in euro for UPM's pulp deliveries decreased by 9%.

Full year 2019 compared with 2018

Comparable EBIT for UPM Biorefining decreased due to lower pulp sales prices. Delivery volumes were higher.

The average price in euro for UPM's pulp deliveries decreased by 16%.

Market environment

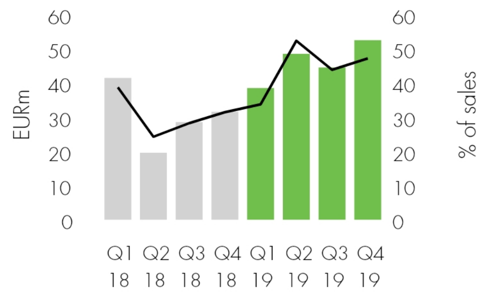
- Global chemical pulp demand continued to grow in 2019. Uncertainties in the global economy and above average pulp inventory levels continued to impact global market pulp shipments.
- In Europe and China, the market price of both northern bleached softwood kraft (NBSK) pulp and bleached hardwood kraft pulp (BHKP) decreased in the fourth quarter of 2019 compared to the previous quarter.
- In 2019, the average European market price in euro was 11% lower for NBSK and 13% lower for BHKP compared to the previous year. In China the average market price in US dollars was 28% lower for NBSK and 26% lower for BHKP compared to the previous year.
- Demand for advanced renewable diesel and naphtha remained strong.
- Demand growth for sawn timber continued in 2019 albeit at lower levels. Uncertainties in the global economy and destocking in the value chain continued to impact market prices.

Sources: FOEX, UPM

UPM Energy

UPM Energy creates value through cost competitive, low-emission electricity generation and through physical and financial electricity trading as well as energy optimisation services for industrial consumers. UPM Energy is the second largest electricity producer in Finland. UPM's power generation capacity consists of hydropower, nuclear power and condensing power.

Comparable EBIT



	Q4/19	Q3/19	Q2/19	Q1/19	Q4/18	Q3/18	Q2/18	Q1/18	Q1–Q4/19	Q1–Q4/18
Sales EURm	110	101	93	113	100	101	83	107	417	391
Comparable EBITDA, EURm	55	48	51	41	34	31	23	44	195	132
% of sales	49.7	47.5	55.1	36.0	34.1	30.8	27.2	41.1	46.7	33.7
Depreciation, amortisation and impairment charges, EURm	-2	-3	-2	-2	-2	-2	-2	-2	-9	-9
Operating profit, EURm	53	45	49	39	23	29	20	42	184	114
% of sales	47.7	44.3	52.2	34.2	22.9	28.7	24.7	39.2	44.2	29.2
Items affecting comparability in operating profit, EURm [1]	—	—	-1	—	-9	—	—	—	-1	-9
Comparable EBIT, EURm	53	45	49	39	32	29	20	42	185	123
% of sales	47.7	44.3	52.9	34.2	31.9	28.7	24.7	39.2	44.4	31.5
Capital employed (average), EURm	2,441	2,452	2,460	2,463	2,419	2,343	2,321	2,301	2,454	2,346
Comparable ROCE, %	8.6	7.3	8.0	6.3	5.3	4.9	3.5	7.3	7.5	5.3
Electricity deliveries, GWh	2,285	2,040	2,121	2,173	2,103	2,128	2,004	2,373	8,619	8,608

[1] In Q2 2019 and Q4 2018, items affecting comparability relate to restructuring of ownership in Meri-Pori power plant

- The hydro situation improved significantly in Finland
- TVO announced that regular electricity generation at the nuclear power plant unit Olkiluoto 3 ERP is expected to start in March 2021

Results

Q4 2019 compared with Q4 2018

Comparable EBIT for UPM Energy increased due to higher electricity sales prices, higher hydropower generation and lower costs for nuclear.

UPM's average electricity sales price increased by 7% to EUR 41.9/MWh (39.4/MWh).

Q4 2019 compared with Q3 2019

Comparable EBIT increased mainly due to higher hydropower generation. Sales prices were slightly lower.

UPM's average electricity sales price decreased by 3% to EUR 41.9/MWh (43.3/MWh).

Full year 2019 compared with 2018

Comparable EBIT for UPM Energy increased due to higher electricity sales prices and lower costs for nuclear.

UPM's average electricity sales price increased by 10% to EUR 41.9/MWh (38.1/MWh).

Market environment

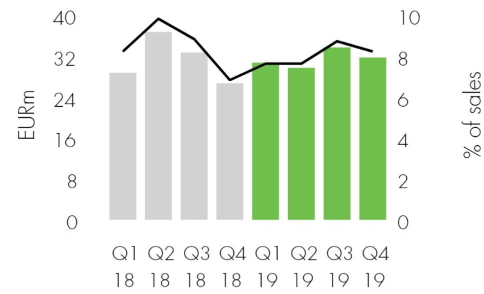
- The Nordic hydrological balance improved close to normal levels in H2 2019 after weak a H1 2019. In Finland, hydrological balance remained weak until the end of Q3 2019 and improved significantly in Q4 due to heavy rains and mild weather.
- Coal prices in Q4 2019 decreased compared to the same period in the previous year. The CO_2 emission allowance price of EUR 24.6/tonne at the end of Q4 2019 was slightly lower than in Q4 2018 (EUR 25.0/tonne).
- The average Finnish area spot price on the Nordic electricity exchange in 2019 was EUR 44.0/MWh, 6% lower than in 2018 (46.8/MWh).
- The front-year forward electricity price for the Finnish area closed at EUR 38.8/MWh in December, 9% lower than at the end of Q3 2019 (42.9/MWh).

Sources: The Norwegian Water Resources and Energy Directorate, Svensk Energi, Finnish Environment Institute, Nord Pool, Nasdaq OMX, Bloomberg, UPM

UPM Raflatac

UPM Raflatac manufactures self-adhesive label materials for product and information labelling in the food, beverage, personal care, pharmaceutical and retail segments, for example. UPM Raflatac is the second-largest producer of self-adhesive label materials worldwide.

Comparable EBIT



	Q4/19	Q3/19	Q2/19	Q1/19	Q4/18	Q3/18	Q2/18	Q1/18	Q1–Q4/19	Q1–Q4/18
Sales EURm	389	382	385	398	397	374	371	345	1,555	1,488
Comparable EBITDA, EURm	43	44	40	40	35	41	44	36	166	156
% of sales	10.9	11.4	10.3	10.1	8.8	11.0	11.9	10.4	10.7	10.5
Depreciation, amortisation and impairment charges, EURm	-10	-10	-10	-10	-7	-8	-7	-7	-40	-30
Operating profit, EURm	33	36	30	26	27	33	37	29	124	126
% of sales	8.4	9.3	7.8	6.5	6.9	8.9	9.9	8.3	8.0	8.5
Items affecting comparability in operating profit, EURm [1)]	1	2	—	-5	—	—	—	—	-2	—
Comparable EBIT, EURm	32	34	30	31	27	33	37	29	126	126
% of sales	8.3	8.8	7.7	7.7	6.9	8.9	9.9	8.3	8.1	8.5
Capital employed (average), EURm	563	578	590	586	543	538	540	519	579	535
Comparable ROCE, %	22.9	23.4	20.1	20.9	20.2	24.8	27.3	22.0	21.8	23.6

[1)] In Q4 2019, items affecting comparability relate to restructuring charges. In Q3 2019, items affecting comparability include gains on sale of non-current assets. In Q1 2019, items affecting comparability relate to restructuring charges.

- Successful working capital reduction and record operating cash flow
- Mix improvement actions
- Launch of climate positive UPM Raflatac RAFNXT+ range, the world's first label material verified by the Carbon Trust

Results

Q4 2019 compared with Q4 2018

Comparable EBIT for UPM Raflatac increased due to improved mix and margin management despite slightly lower delivery volumes and unfavourable changes in currencies.

Q4 2019 compared with Q3 2019

Comparable EBIT decreased slightly due to seasonally higher fixed costs, more than offsetting the positive impact of lower variable costs and higher delivery volumes.

Full year 2019 compared with 2018

Comparable EBIT for UPM Raflatac remained unchanged. Higher sales prices and delivery volumes offset the negative impact of higher costs and unfavourable changes in currencies.

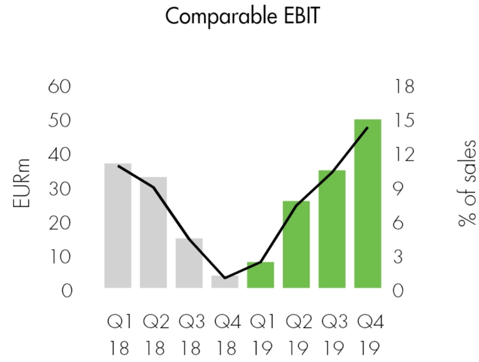
Market environment

- Global demand growth for self-adhesive label materials continued in 2019, albeit at a slower pace.

Sources: FINAT, TLMI

UPM Specialty Papers

UPM Specialty Papers serves growing global markets with labelling materials and release liners, office and graphic papers as well as packaging papers for labelling, commercial siliconising, flexible packaging, wrapping and printing. The operations consist of the UPM Changshu and UPM Tervasaari mills in China and Finland, as well as label and packaging papers production lines at the UPM Jämsänkoski mill in Finland. The main customers are label stock manufacturers, paper converters, merchants and distributors and packaging customers.



	Q4/19	Q3/19	Q2/19	Q1/19	Q4/18	Q3/18	Q2/18	Q1/18	Q1–Q4/19	Q1–Q4/18
Sales EURm	353	344	359	357	364	354	368	343	1,412	1,429
Comparable EBITDA, EURm	67	53	45	29	23	34	53	56	194	167
% of sales	18.9	15.4	12.5	8.2	6.4	9.7	14.4	16.4	13.7	11.7
Depreciation, amortisation and impairment charges, EURm	-16	-18	-19	-21	-19	-19	-20	-19	-74	-77
Operating profit, EURm	50	35	26	8	4	15	33	37	120	90
% of sales	14.3	10.3	7.4	2.4	1.0	4.4	9.0	10.9	8.5	6.3
Items affecting comparability in operating profit, EURm	—	—	—	—	—	—	—	—	—	—
Comparable EBIT, EURm	50	35	26	8	4	15	33	37	120	90
% of sales	14.3	10.3	7.4	2.4	1.0	4.4	9.0	10.9	8.5	6.3
Capital employed (average), EURm	920	895	892	908	901	896	887	874	904	889
Comparable ROCE, %	21.9	15.8	11.8	3.7	1.7	6.9	15.0	17.1	13.3	10.1
Paper deliveries, 1000 t	394	383	390	386	393	389	393	379	1,552	1,554

- Ramp-up of UPM Nordland paper machine 2 after conversion to glassine paper ongoing
- Investment in a supercalender at UPM Changshu mill completed
- Strict cost control continued
- New business and product development to innovate alternatives for fossil-based packaging

Results

Q4 2019 compared with Q4 2018

Comparable EBIT for UPM Specialty Papers increased due to lower input costs. Sales prices were lower. Fixed costs decreased.

Q4 2019 compared with Q3 2019

Comparable EBIT increased due to lower input costs. Fixed costs increased seasonally.

Full year 2019 compared with 2018

Comparable EBIT for UPM Specialty Papers increased due to lower input costs more than offsetting the negative impact of lower fine paper sales prices and unfavourable changes in currencies. Fixed costs decreased.

Market environment

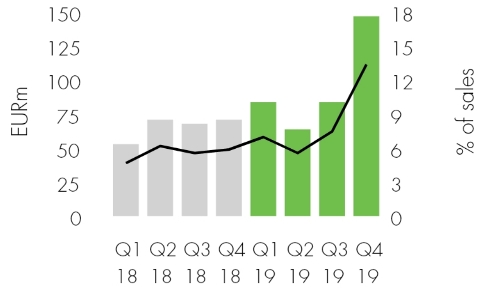
- After a slow start in the Asia-Pacific region, fine paper demand was good during 2019. China fine paper market prices increased during 2019.
- Label, release and packaging paper demand growth was healthy in 2019 but sales prices were lower.

Sources: UPM, RISI, Pöyry, AWA

UPM Communication Papers

UPM Communication Papers offers an extensive product range of graphic papers for advertising and publishing as well as home and office uses. The business has extensive low-cost operations consisting of 15 efficient paper mills in Europe and the United States, a global sales network and an efficient logistic system. The main customers are publishers, cataloguers, retailers, printers and merchants.

Comparable EBIT



	Q4/19	Q3/19	Q2/19	Q1/19	Q4/18	Q3/18	Q2/18	Q1/18	Q1–Q4/19	Q1–Q4/18
Sales EURm	1,098	1,116	1,138	1,200	1,206	1,209	1,149	1,126	4,552	4,690
Comparable EBITDA, EURm	181	117	98	118	99	97	101	84	513	381
% of sales	16.4	10.5	8.6	9.8	8.2	8.0	8.8	7.5	11.3	8.1
Share of results of associated companies and joint ventures, EURm	1	0	0	0	1	1	0	0	1	2
Depreciation, amortisation and impairment charges, EURm	-34	-43	-34	-33	-28	-28	-29	-30	-145	-116
Operating profit, EURm	147	57	36	85	71	69	88	85	324	312
% of sales	13.3	5.1	3.2	7.1	5.9	5.7	7.7	7.5	7.1	6.7
Items affecting comparability in operating profit, EURm [1]	-2	-28	-29	—	-1	—	17	30	-58	46
Comparable EBIT, EURm	148	85	65	85	72	69	72	54	383	267
% of sales	13.5	7.6	5.7	7.1	6.0	5.7	6.3	4.8	8.4	5.7
Capital employed (average), EURm	1,541	1,627	1,663	1,759	1,631	1,605	1,591	1,580	1,647	1,602
Comparable ROCE, %	38.5	20.8	15.6	19.3	17.7	17.1	18.1	13.7	23.2	16.7
Paper deliveries, 1000 t	1,681	1,681	1,666	1,746	1,865	1,879	1,842	1,855	6,774	7,442

[1] In Q4 2019, items affecting comparability relate to prior capacity closures. In Q3 2019, items affecting comparability include EUR 17 million restructuring charges and EUR 11 million impairment charges related to closure of paper machine 2 at UPM Rauma mill, Finland. In Q2 2019, items affecting comparability include EUR 28 million restructuring charges and EUR 1 million impairment charges related to closure of paper machine 10 at UPM Plattling mill, Germany. In Q4 2018, items affecting comparability relate to prior capacity closures. In Q2 2018, items affecting comparability include EUR 18 million income relating to reversal of unused restructuring provisions in Finland and Germany and EUR 1 million loss relating to sale of Myllykoski mill site in Finland. In Q1 2018, items affecting comparability relate to sale of hydropower assets located in Schongau and Ettringen mill sites in Germany.

- UPM announced an investment in CHP plant at UPM Nordland paper mill and E.ON announced an investment in a biomass power plant at UPM Hürth paper mill, Germany
- Closure of paper machine 2 at UPM Rauma, Finland
- Efficient working capital management and record cash flow

Results

Q4 2019 compared with Q4 2018

Comparable EBIT for UPM Communication Papers increased due to lower pulp and energy costs. The recognition of energy related refunds in Europe in Q4 impacted energy costs slightly more than in the previous year. Also, fixed costs decreased. Delivery volumes decreased. Sales prices were lower in local currencies, which was compensated by exchange rate effects.

The average price in euro for UPM's paper deliveries were on average on the same level.

Q4 2019 compared with Q3 2019

Comparable EBIT increased. Energy costs were seasonally significantly lower due to recognition of energy related refunds in Europe. Also, fibre costs decreased.

The average price in euro for UPM's paper deliveries decreased by 2%.

Full year 2019 compared with 2018

Comparable EBIT for UPM Communication Papers increased due to higher sales prices more than offsetting the negative impact of lower volumes. Variable and fixed costs were lower.

The average price in euro for UPM's paper deliveries increased by 6%.

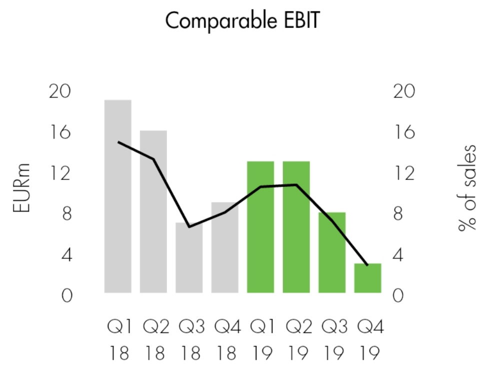
Market environment

- In 2019, demand for graphic papers in Europe was 9% lower than in the previous year. Newsprint demand decreased by 9%, magazine paper by 10% and fine paper by 7% compared with 2018.
- In Q4 2019 publication paper prices in Europe were 1% higher than in the third quarter of 2019. Compared to Q4 2018 publication paper prices were 1% higher. In Q4 2019 fine paper prices in Europe remained unchanged in comparison with the previous quarter. Compared to Q4 2018 fine paper prices were on average 3% lower.
- In 2019, demand for magazine papers in North America decreased by 14% compared to 2018. The average price in US dollars for magazine papers in Q4 2019 decreased by 2% compared to Q3 2019 and by 3% compared to Q4 2018.

Sources: PPI/RISI, Euro-Graph, PPPC

UPM Plywood

UPM Plywood offers plywood and veneer products, mainly for construction, vehicle flooring and LNG shipbuilding, as well as other industrial applications. Production facilities are located in Finland, Estonia and Russia.



	Q4/19	Q3/19	Q2/19	Q1/19	Q4/18	Q3/18	Q2/18	Q1/18	Q1–Q4/19	Q1–Q4/18
Sales EURm	101	106	120	123	119	112	125	125	450	480
Comparable EBITDA, EURm	9	14	19	19	15	13	22	24	61	75
% of sales	9.4	13.0	15.6	15.3	13.0	11.7	17.8	19.5	13.5	15.6
Depreciation, amortisation and impairment charges, EURm	-7	-6	-6	-6	-6	-6	-6	-6	-25	-23
Operating profit, EURm	3	8	13	13	9	7	16	19	36	52
% of sales	2.8	7.2	10.7	10.5	8.0	6.6	13.2	14.9	8.0	10.8
Items affecting comparability in operating profit, EURm	—	—	—	—	—	—	—	—	—	—
Comparable EBIT, EURm	3	8	13	13	9	7	16	19	36	52
% of sales	2.8	7.2	10.7	10.5	8.0	6.6	13.2	14.9	8.0	10.8
Capital employed (average), EURm	328	332	336	321	301	282	280	269	329	283
Comparable ROCE, %	3.4	9.3	15.2	16.1	12.6	10.5	23.6	27.6	11.0	18.4
Plywood deliveries, 1000 m³	169	181	193	196	189	188	206	209	739	791

- Production curtailment, temporary lay-offs and a strike in Finland
- Joensuu mill's boiler and scarf-jointing line replacement projects' handing over was completed
- The WISA-Spruce fire-retardant plywood product range was expanded

Results

Q4 2019 compared with Q4 2018

Comparable EBIT for UPM Plywood decreased due to lower delivery volumes and mix impacted sales prices.

Q4 2019 compared with Q3 2019

Comparable EBIT decreased due to lower delivery volumes and higher costs.

Full year 2019 compared with 2018

Comparable EBIT for UPM Plywood decreased mainly due to lower delivery volumes.

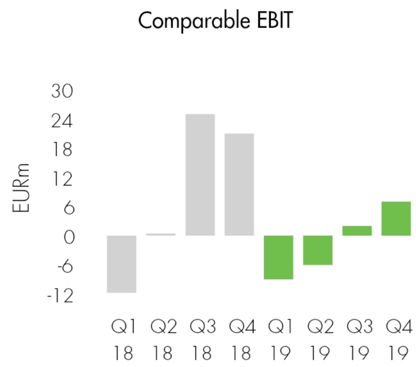
Market environment

- Market demand in Europe decelerated in 2019. Demand for spruce plywood and for birch plywood-related industrial applications was weakening. Competition remained intense in the birch-trading business.

Source: UPM

Other operations

UPM Forest secures competitive wood and biomass for UPM businesses and manages UPM-owned and privately-owned forests in North Europe. In addition, UPM offers forestry services to forest owners and forest investors. UPM Biochemicals, UPM Biocomposites and UPM Biomedicals business units as well as group services are also included in Other operations.



	Q4/19	Q3/19	Q2/19	Q1/19	Q4/18	Q3/18	Q2/18	Q1/18	Q1–Q4/19	Q1–Q4/18
Sales EURm	62	63	72	68	87	80	83	76	264	326
Comparable EBITDA, EURm [1]	-17	4	3	-8	-14	-2	1	-13	-18	-28
Change in fair value of forest assets and wood harvested, EURm [1]	31	4	-3	6	383	30	3	3	38	419
Share of results of associated companies and joint ventures, EURm	0	0	0	0	0	0	0	1	0	2
Depreciation, amortisation and impairment charges, EURm	-7	-6	-7	-6	-3	-3	-3	-3	-27	-13
Operating profit, EURm	7	1	-9	-9	365	25	0	-12	-10	380
Items affecting comparability in operating profit, EURm [2]	—	-1	-2	—	345	—	—	—	-4	345
Comparable EBIT, EURm	7	2	-6	-9	21	25	0	-12	-7	35
Capital employed (average), EURm	1,864	1,823	1,807	1,801	1,447	1,360	1,378	1,384	1,824	1,392
Comparable ROCE, %	1.4	0.4	-1.4	-2.0	5.8	7.5	0.1	-3.4	-0.4	2.5

[1] The 2018 comparative figures have been restated due to accounting policy change of forest renewal costs.
Refer to *» Basis of preparation and accounting policies.*

[2] In Q3 2019, items affecting comparability relate to restructuring charges and in Q2 2019 to capital loss on sale of Voikkaa mill site in Finland. In Q4 2018, items affecting comparability of EUR 345 million relate to increase in the fair value of the forest assets in Finland, mainly due to higher forest growth estimates.

Results

Q4 2019 compared with Q4 2018

Comparable EBIT for other operations decreased. The change in the fair value of forest assets net of wood harvested was EUR 31 million (383 million).The increase in the fair value of forest assets was EUR 45 million (394 million). In 2018, this included EUR 345 million increase in the fair value of forest assets in Finland. The cost of wood harvested from UPM forests was EUR 14 million (12 million).

Q4 2019 compared with Q3 2019

Comparable EBIT increased. The change in the fair value of forest assets net of wood harvested was EUR 31 million (4 million). The increase in the fair value of forest assets was EUR 45 million (15 million). The cost of wood harvested from UPM forests was EUR 14 million (12 million).

Full year 2019 compared with 2018

Comparable EBIT for other operations decreased. The change in the fair value of forest assets net of wood harvested was EUR 38 million (419 million). The increase in the fair value of forest assets was EUR 88 million (471 million). In 2018, this included EUR 345 million increase in the fair value of forest assets in Finland. The cost of wood harvested from UPM forests was EUR 51million (52 million).

Risks and near-term uncertainties

The main uncertainties in UPM's earnings relate to the sales prices and delivery volumes of the group's products, as well as to changes to the main input cost items and currency exchange rates. Most of these items depend on general economic developments.

Economists continue to expect modest global GDP growth in 2020. However, there are significant uncertainties related to the global economic growth. Trade tensions between the US, China and other economic areas, the undefined nature of Brexit and political uncertainties in several other countries cause uncertainty to the global economy.

There are uncertainties regarding the growth outlook in developing economies, including China, which may significantly influence the overall global economy and many of UPM's product markets in particular. The new corona virus appearance in China, and uncertainties related to trade tariffs and other possible protectionist policies add to the risks. China accounted for 9.9% of UPM's sales in 2019.

Economic growth has slowed down in Europe, particularly in Germany. Slowing economy may have an adverse impact on demand and pricing for UPM's products. The EU is the most significant market for UPM, representing 57.6% of the company's sales in 2019.

The UK has decided to leave the EU, and this is scheduled to take place at the end of January 2020. However, the nature of the relationship after an 11-month transition period remains undefined. This represents uncertainty and risks related to economic growth, especially in the UK and the EU. The UK accounted for 6.5% of UPM's sales in 2019.

The current labour action in Finland, if it continues for the announced period, will reduce UPM's production of pulp, paper and wood products in Finland in the first quarter of 2020 and may affect the company's earnings in the same period. The country-wide labour action may also reduce supply in the international product markets and demand in the local raw material markets.

Changes to the monetary policies of major central banks may significantly impact various currencies that directly or indirectly affect UPM.

In Finland, UPM is participating in a project to construct a new nuclear power plant unit Olkiluoto 3 EPR (OL3) through its shareholdings in Pohjolan Voima Oyj. Pohjolan Voima Oyj is a majority shareholder of Teollisuuden Voima Oyj (TVO), holding 58.5% of its shares. UPM's indirect share of OL3 is approximately 31%.

According to TVO OL3 was procured as a fixed price turnkey project from a consortium formed by Areva GmbH, Areva NP SAS and Siemens AG (the Supplier). The consortium companies have under the plant contract joint and several liability for the contractual obligations.

Originally the commercial electricity production of the OL3 was scheduled to start in April 2009. However, the completion of the project has been delayed. Supplier has updated the schedule for the commissioning of OL3 several times. As announced by TVO in December 2019, according to the information received from Supplier, regular electricity generation at the plant unit will commence in March 2021.

In March 2018 TVO announced it had signed a comprehensive settlement agreement with the Supplier and Areva Group parent company, Areva SA, a company wholly owned by the French State. The settlement agreement concerns the completion of the OL3 project and related disputes and entered into force in late March. According to TVO, pursuant to the settlement agreement TVO and Supplier jointly withdrew the pending arbitration proceedings under the International Chamber of Commerce (ICC) rules with respect to costs and losses incurred in relation to delays in the construction of the OL3 project.

In July 2018 TVO announced that in June 2018 the ICC tribunal had confirmed the arbitration settlement by a consent award, and the arbitration proceedings had been terminated. The parties also withdrew the pending appeals in the General Court of the European Union.

According to TVO the settlement agreement stipulates as follows: To provide and maintain adequate and competent technical and human resources for the completion of the OL3 project, Areva will source the necessary additional resources from Framatome S.A.S., whose majority owner is EDF.

The supplier consortium companies undertake that the funds dedicated to the completion of the OL3 project will be adequate and will cover all applicable guarantee periods, including setting up a trust mechanism funded by Areva companies to secure the financing of the costs of completion of the OL3 project.

The turnkey principle of the OL3 plant contract and the joint and several liability of the supplier consortium companies remain in full force.

The agreement also noted Supplier's schedule at the time the agreement was signed, according to which regular electricity production in the unit would have commenced in May 2019.

The ICC arbitration concerning the costs and losses caused by the delay of the OL3 project is settled by financial compensation of EUR 450 million to be paid to TVO in two installments by Supplier.

The parties withdraw all on-going legal actions related to OL3, including the ICC Arbitration and appeals in the General Court of the European Union.

The supplier consortium companies are entitled to receive an incentive payment, in a maximum amount of EUR 150 million, upon timely completion of the OL3 project. In the event that the supplier consortium companies fail to complete the OL3 project by the end of 2019, the supplier consortium companies will pay a penalty to TVO for such delay in an amount which will depend on the actual time of completion of the OL3 project and may not exceed EUR 400 million.

Further delays to the OL3 project could have an adverse impact on PVO's business and financial position, the fair value of UPM's energy shareholdings in PVO and/or the cost of energy sourced from OL3 when completed. It is possible that the cost of energy sourced from OL3 at the time when it starts regular electricity production will be higher than the market price of electricity at that time.

The main earnings sensitivities and the group's cost structure are presented on pages 135–136 of the Annual Report 2018. Risks and opportunities are discussed on pages 30–31, and risks and risk management are presented on pages 106–109.

Shares

In 2019 UPM shares worth a total of EUR 9,695 million (9,980 million) were traded on the NASDAQ Helsinki stock exchange. This is estimated to represent more than 50% of all trading volume in UPM shares. The highest listing was EUR 31.49 in December and the lowest was EUR 21.10 in July.

In the beginning of the year the company's ADSs were traded on the US over-the-counter (OTC) market under a Level 1-sponsored American Depositary Receipt programme. This American Depositary Receipt programme terminated on 30 August 2019.

The Annual General Meeting held on 4 April 2019 authorised the Board of Directors to decide on the repurchase of a maximum of 50,000,000 of the Company's own shares. The authorisation will be valid for 18 months from the date of the AGM resolution.

The Annual General Meeting held on 4 April 2019 authorised the Board of Directors to decide on the issuance of new shares, the transfer of treasury shares and the issuance of special rights entitling to shares in proportion to the shareholders' existing holdings in the Company, or in a directed share issue, deviating from the shareholder's pre-emptive subscription right. The Board of Directors may also decide on a share issue without payment to the Company itself. The aggregate maximum number of new shares that may be issued and treasury shares that may be transferred is 25,000,000 including the number of shares that can be received on the basis of the special rights. The authorisation will be valid for 18 months from the date of the AGM resolution.

Aside from the above, the Board of Directors has no current authorisation to issue shares, convertible bonds or share options.

The number of shares entered in the Trade Register on 31 December 2019 was 533,735,699. Through the issuance authorisation, the number of shares may increase to a maximum of 558,735,699.

On 31 December 2019 the Company held 411,653 of its own shares, representing approximately 0.08% of the total number of company shares and voting rights. The Board of Directors may decide to retain, transfer or cancel the treasury shares.

Litigation

In 2012, UPM commenced arbitration proceedings against Metsäliitto Cooperative and Metsä Board Corporation due to their breaches of UPM's tag-along right under the shareholders' agreement concerning Metsä Fibre Oy in connection with the sale of shares in Metsä Fibre to Itochu Corporation. UPM claimed jointly from Metsäliitto and Metsä Board a capital amount of EUR 58.5 million. Metsäliitto and Metsä Board had sold a 24.9% holding in Metsä Fibre to Itochu Corporation for EUR 472 million. In connection with the transaction with Itochu, Metsäliitto had exercised a call option to purchase UPM's remaining 11% shareholding in Metsä Fibre for EUR 150 million. The arbitral tribunal rendered its final decision (arbitral award) in February 2014 and ordered Metsäliitto and Metsä Board to pay UPM the capital amount of EUR 58.5 million and penalty interest and compensate UPM for its legal fees. As a result, UPM recorded an income of EUR 67 million as item affecting comparability in Q1 2014.

In May 2014 Metsäliitto and Metsä Board commenced litigation proceedings in the Helsinki District Court challenging the arbitral award and requesting the District Court to set aside the arbitral award or to declare it null and void.

In June 2015 the District Court rejected the actions by Metsäliitto and Metsä Board and following an appeal the Helsinki Court of Appeal rejected the actions by Metsäliitto and Metsä Board in October 2016. Metsäliitto and Metsä Board filed a request for leave of appeal with the Supreme Court.

In March 2019 the Supreme Court rendered its decision denying Metsäliitto and Metsä Board leave to appeal as a result of which the judgement of the Court of Appeal remains final.

Helsinki, 30 January 2020

UPM-Kymmene Corporation
Board of Directors

Financial information

Consolidated income statement

EURm	Q4/2019	RESTATED *) Q4/2018	Q1–Q4/2019	RESTATED *) Q1–Q4/2018
Sales	2,447	2,731	10,238	10,483
Other operating income	17	19	97	87
Costs and expenses *)	-2,028	-2,281	-8,531	-8,665
Change in fair value of forest assets and wood harvested *)	19	380	26	407
Share of results of associated companies and joint ventures	1	1	3	6
Depreciation, amortisation and impairment charges	-120	-105	-490	-422
Operating profit	336	744	1,344	1,895
Exchange rate and fair value gains and losses	1	1	0	3
Interest and other finance costs, net	-13	-15	-38	-60
Profit before tax	324	731	1,307	1,839
Income taxes	-61	-139	-234	-342
Profit for the period	263	591	1,073	1,496
Attributable to:				
Owners of the parent company	265	593	1,061	1,495
Non-controlling interests	-2	-2	12	1
	263	591	1,073	1,496
Earnings per share for profit attributable to owners of the parent company				
Basic earnings per share, EUR	0.50	1.11	1.99	2.80
Diluted earnings per share, EUR	0.50	1.11	1.99	2.80

*) Accounting policy change of forest renewal costs.

Consolidated statement of comprehensive income

EURm	Q4/2019	Q4/2018	Q1–Q4/2019	Q1–Q4/2018
Profit for the period	263	591	1,073	1,496
Other comprehensive income for the period, net of tax				
Items that will not be reclassified to income statement:				
Actuarial gains and losses on defined benefit obligations	73	-61	-58	0
Changes in fair value of energy shareholdings	5	60	-13	183
Items that may be reclassified subsequently to income statement:				
Translation differences	-45	23	67	62
Net investment hedge	7	-4	-6	-14
Cash flow hedges	3	-1	-50	13
Other comprehensive income for the period, net of tax	43	17	-58	243
Total comprehensive income for the period	306	608	1,014	1,739
Total comprehensive income attributable to:				
Owners of the parent company	310	610	987	1,738
Non-controlling interests	-4	-2	27	1
	306	608	1,014	1,739

Consolidated balance sheet

EURm	31 DEC 2019	31 DEC 2018
ASSETS		
Goodwill	238	236
Other intangible assets	326	295
Property, plant and equipment	4,083	4,186
Leased assets	590	—
Forest assets	2,097	1,945
Energy shareholdings	2,145	2,159
Other non-current financial assets	170	178
Deferred tax assets	395	397
Net retirement benefit assets	38	38
Investments in associates and joint ventures	33	32
Other non-current assets	23	34
Non-current assets	10,140	9,501
Inventories	1,367	1,642
Trade and other receivables	1,576	1,833
Other current financial assets	59	107
Income tax receivables	26	24
Cash and cash equivalents	1,536	888
Current assets	4,565	4,496
Assets classified as held for sale	18	—
Assets	14,722	13,996
EQUITY AND LIABILITIES		
Share capital	890	890
Treasury shares	-2	-2
Translation reserve	278	232
Other reserves	1,711	1,778
Reserve for invested non-restricted equity	1,273	1,273
Retained earnings	5,912	5,623
Equity attributable to owners of the parent company	10,062	9,792
Non-controlling interests	113	5
Equity	10,175	9,797
Deferred tax liabilities	549	535
Net retirement benefit liabilities	759	679
Provisions	144	126
Non-current debt	1,195	753
Other non-current financial liabilities	83	101
Non-current liabilities	2,730	2,194
Current debt	104	25
Trade and other payables	1,654	1,881
Other current financial liabilities	33	78
Income tax payables	27	22
Current liabilities	1,818	2,005
Liabilities	4,548	4,199
Equity and liabilities	14,722	13,996

Consolidated statement of changes in equity

EURm	SHARE CAPITAL	TREASURY SHARES	TRANSLATION RESERVE	OTHER RESERVES	RESERVE FOR INVESTED NON-RESTRICTED EQUITY	RETAINED EARNINGS	EQUITY ATTRIBUTABLE TO OWNERS OF THE PARENT COMPANY	NON-CONTROLLING INTERESTS	TOTAL EQUITY
Value at 31 December 2018	890	-2	232	1,778	1,273	5,623	9,792	5	9,797
Impact of adoption of IFRS 16 [1]	—	—	—	—	—	-6	-6	—	-6
Value at 1 January 2019	890	-2	232	1,778	1,273	5,617	9,786	5	9,791
Profit for the period	—	—	—	—	—	1,061	1,061	12	1,073
Translation differences	—	—	53	—	—	—	53	15	67
Cash flow hedges - reclassified to income statement, net of tax	—	—	—	5	—	—	5	—	5
Cash flow hedges - changes in fair value, net of tax	—	—	—	-54	—	—	-54	—	-54
Net investment hedge, net of tax	—	—	-6	—	—	—	-6	—	-6
Energy shareholdings - changes in fair value, net of tax	—	—	—	-13	—	1	-13	—	-13
Actuarial gains and losses on defined benefit plans, net of tax	—	—	—	—	—	-58	-58	—	-58
Total comprehensive income for the period	—	—	47	-63	—	1,004	987	27	1,014
Share-based payments, net of tax	—	—	—	-3	—	-8	-12	—	-12
Dividend distribution	—	—	—	—	—	-693	-693	—	-693
Changes in non-controlling interests	—	—	—	—	—	-7	-7	81	75
Total transactions with owners for the period	—	—	—	-3	—	-709	-712	81	-631
Value at 31 December 2019	890	-2	278	1,711	1,273	5,912	10,062	113	10,175
Value at 1 January 2018	890	-2	184	1,590	1,273	4,750	8,684	4	8,687
Profit for the period	—	—	—	—	—	1,495	1,495	1	1,496
Translation differences	—	—	61	—	—	—	61	—	62
Cash flow hedges - reclassified to income statement, net of tax	—	—	—	-13	—	—	-13	—	-13
Cash flow hedges - changes in fair value, net of tax	—	—	—	26	—	—	26	—	26
Net investment hedge, net of tax	—	—	-14	—	—	—	-14	—	-14
Energy shareholdings - changes in fair value, net of tax	—	—	—	183	—	—	183	—	183
Actuarial gains and losses on defined benefit plans, net of tax	—	—	—	—	—	—	—	—	—
Total comprehensive income for the period	—	—	48	196	—	1,494	1,738	1	1,739
Share-based payments, net of tax	—	—	—	-8	—	-7	-16	—	-16
Dividend distribution	—	—	—	—	—	-613	-613	—	-613
Total transactions with owners for the period	—	—	—	-8	—	-621	-629	—	-629
Value at 31 December 2018	890	-2	232	1,778	1,273	5,623	9,792	5	9,797

[1] More information on changes in group's accounting policies is presented under » **Basis of preparation and accounting policies.**

Consolidated cash flow statement

EURm	Q1–Q4/2019	RESTATED *) Q1–Q4/2018
Cash flows from operating activities		
Profit for the period	1,073	1,496
Adjustments [1)]	719	301
Interest received	2	2
Interest paid	-29	-15
Dividends received	2	2
Other financial items, net	-20	-20
Income taxes paid	-176	-228
Change in working capital [2)]	276	-209
Operating cash flow	1,847	1,330
Cash flows from investing activities		
Capital expenditure	-359	-303
Additions to forest assets	-44	-49
Proceeds from sale of property, plant and equipment and intangible assets, net of tax	13	32
Proceeds from sale of forest assets, net of tax	2	110
Proceeds from disposal of energy shareholdings	1	1
Net cash flows from net investment hedges	-29	16
Change in other non-current assets	1	-4
Investing cash flow	-415	-199
Cash flows from financing activities		
Proceeds from non-current debt	13	0
Payments of non-current debt [**)]	-6	-324
Lease repayments [**)]	-82	-7
Change in current liabilities	-7	4
Net cash flows from derivatives	11	0
Dividends paid	-693	-613
Contributions by non-controlling interests	21	—
Other financing cash flow	-39	-19
Financing cash flow	-783	-959
Change in cash and cash equivalents	649	172
Cash and cash equivalents at beginning of period	888	716
Exchange rate effect on cash and cash equivalents	-1	0
Change in cash and cash equivalents	649	172
Cash and cash equivalents at end of period	1,536	888

[*)] Accounting policy change of forest renewal costs.
[**)] Repayments of finance leases under IAS 17 have been reclassified from Payments of non-current debt to Lease repayments.

[1)] Adjustments

EURm	Q1–Q4/2019	Q1–Q4/2018
Change in fair value of forest assets and wood harvested	-26	-407
Share of results of associated companies and joint ventures	-3	-6
Depreciation, amortisation and impairment charges	490	422
Capital gains and losses on sale of non-current assets	-1	-47
Financial income and expenses	37	56
Income taxes	234	342
Utilised provisions	-29	-35
Non-cash changes in provisions	43	-21
Other adjustments	-25	-4
Total	719	301

[2)] Change in working capital

EURm	Q1–Q4/2019	Q1–Q4/2018
Inventories	282	-317
Receivables included in working capital	270	-50
Liabilities included in working capital	-276	158
Total	276	-209

Quarterly key figures

In addition to the conventional financial performance measures established by the IFRS, certain key figures (alternative performance measures) are presented to reflect the underlying business performance and enhance comparability from period to period.

	Q4/19	Q3/19	Q2/19	Q1/19	Q4/18	Q3/18	Q2/18	Q1/18	Q1–Q4/19	Q1–Q4/18
Sales EURm	2,447	2,493	2,605	2,693	2,731	2,650	2,589	2,512	10,238	10,483
Comparable EBITDA, EURm [1]	442	455	466	488	473	497	442	456	1,851	1,868
% of sales [1]	18.1	18.2	17.9	18.1	17.3	18.7	17.1	18.2	18.1	17.8
Comparable EBIT, EURm	343	342	345	374	404	420	334	355	1,404	1,513
% of sales	14.0	13.7	13.2	13.9	14.8	15.9	12.9	14.1	13.7	14.4
Comparable profit before tax, EURm	331	345	325	366	390	404	322	341	1,367	1,457
Capital employed (average, EURm)	11,323	10,996	11,069	10,946	10,259	9,817	9,712	9,755	11,024	10,176
Comparable ROCE, %	12.2	12.9	12.2	13.7	15.5	16.8	13.6	14.3	12.8	14.6
Comparable profit for the period, EURm	261	281	271	305	319	330	258	288	1,119	1,194
Total equity, average, EURm	10,015	9,706	9,804	9,924	9,491	8,959	8,856	8,821	9,986	9,230
Comparable ROE, %	10.4	11.6	11.1	12.3	13.4	14.6	11.6	13.0	11.2	12.9
Average number of shares basic (1,000)	533,324	533,324	533,324	533,324	533,324	533,324	533,324	533,324	533,324	533,324
Comparable EPS, EUR	0.49	0.50	0.51	0.57	0.60	0.61	0.48	0.54	2.07	2.24
Items affecting comparability in operating profit, EURm	-7	-26	-26	-1	340	-3	15	30	-60	382
Items affecting comparability in financial items, EURm	0	0	0	0	0	0	0	0	0	0
Items affecting comparability in taxes, EURm	10	5	-1	0	-68	1	-3	-9	14	-80
Operating cash flow, EURm [1]	592	500	436	320	384	405	328	214	1,847	1,330
Operating cash flow per share, EUR [1]	1.11	0.94	0.82	0.60	0.72	0.76	0.61	0.40	3.46	2.49
Net debt at the end of period, EURm	-453	-2	366	-5	-311	4	401	41	-453	-311
Net debt to EBITDA (last 12 m.) [1]	-0.24	0.00	0.19	0.00	-0.17	0.00	0.22	0.02	-0.24	-0.17
Gearing ratio, %	-4	0	4	0	-3	0	5	0	-4	-3
Equity per share at the end of period, EUR	18.87	18.28	17.91	18.84	18.36	17.21	16.37	16.83	18.87	18.36
Capital expenditure, EURm	166	79	71	62	109	76	76	43	378	303
Capital expenditure excluding acquisitions, EURm	166	79	71	62	109	76	76	43	378	303
Equity to assets ratio, %	69.2	68.3	67.9	68.1	70.1	69.6	68.0	69.5	69.2	70.1
Personnel at the end of period	18,742	19,020	19,760	19,008	18,978	19,076	19,836	19,027	18,742	18,978

[1] The 2018 comparative figures have been restated due to accounting policy change of forest renewal costs.
Refer to » ***Basis of preparation and accounting policies.***

The definitions of alternative performance measures are presented in other financial information in » ***UPM Annual Report 2018.***

Reconciliation of key figures to IFRS

EURm, OR AS INDICATED	Q4/19	Q3/19	Q2/19	Q1/19	Q4/18	Q3/18	Q2/18	Q1/18	Q1–Q4/19	Q1–Q4/18
Items affecting comparability										
Impairment charges	-1	-11	-1	0	0	0	0	0	-13	0
Restructuring charges	0	-18	-28	-5	-10	0	18	0	-52	9
Change in fair value of unrealised cash flow and commodity hedges	-6	1	6	4	6	-3	-2	0	5	0
Capital gains and losses on sale of non-current assets	0	2	-2	0	0	0	-2	30	0	29
Fair value changes of forest assets resulting from changes in estimates	0	0	0	0	345	0	0	0	0	345
Total items affecting comparability in operating profit	-7	-26	-26	-1	340	-3	15	30	-60	382
Items affecting comparability in taxes	10	5	-1	0	-68	1	-3	-9	14	-80
Items affecting comparability, total	2	-21	-26	-1	272	-2	11	21	-46	302
Comparable EBITDA										
Operating profit	336	316	319	373	744	417	349	385	1,344	1,895
Depreciation, amortisation and impairment charges excluding items affecting comparability	120	119	118	120	105	105	106	106	477	422
Change in fair value of forest assets and wood harvested excluding items affecting comparability [1)]	-19	-5	3	-5	-35	-27	3	-3	-26	-63
Share of result of associates and joint ventures	-1	-1	-1	-1	-1	-2	-1	-2	-3	-6
Items affecting comparability in operating profit	7	26	26	1	-340	3	-15	-30	60	-382
Comparable EBITDA [1)]	442	455	466	488	473	497	442	456	1,851	1,868
% of sales [1)]	18.1	18.2	17.9	18.1	17.3	18.7	17.1	18.2	18.1	17.8
Comparable EBIT										
Operating profit	336	316	319	373	744	417	349	385	1,344	1,895
Items affecting comparability in operating profit	7	26	26	1	-340	3	-15	-30	60	-382
Comparable EBIT	343	342	345	374	404	420	334	355	1,404	1,513
% of sales	14.0	13.7	13.2	13.9	14.8	15.9	12.9	14.1	13.7	14.4
Comparable profit before tax										
Profit before tax	324	319	300	364	731	401	337	371	1,307	1,839
Items affecting comparability in operating profit	7	26	26	1	-340	3	-15	-30	60	-382
Comparable profit before tax	331	345	325	366	390	404	322	341	1,367	1,457
Comparable ROCE, %										
Comparable profit before tax	331	345	325	366	390	404	322	341	1,367	1,457
Interest expenses and other financial expenses	14	10	11	8	7	9	8	9	44	33
	346	355	337	374	397	413	330	350	1,411	1,490
Capital employed, average	11,323	10,996	11,069	10,946	10,259	9,817	9,712	9,755	11,024	10,176
Comparable ROCE, %	12.2	12.9	12.2	13.7	15.5	16.8	13.6	14.3	12.8	14.6
Comparable profit for the period										
Profit for the period	263	260	245	304	591	328	269	309	1,073	1,496
Items affecting comparability, total	-2	21	26	1	-272	2	-11	-21	46	-302
Comparable profit for the period	261	281	271	305	319	330	258	288	1,119	1,194
Comparable EPS, EUR										
Comparable profit for the period	261	281	271	305	319	330	258	288	1,119	1,194
Profit attributable to non-controlling interest	2	-14	0	0	2	-2	0	-1	-12	-1
	263	267	271	305	321	328	258	287	1,106	1,193
Average number of shares basic (1,000)	533,324	533,324	533,324	533,324	533,324	533,324	533,324	533,324	533,324	533,324
Comparable EPS, EUR	0.49	0.50	0.51	0.57	0.60	0.61	0.48	0.54	2.07	2.24

[1)] The 2018 comparative figures have been restated due to accounting policy change of forest renewal costs. Refer to » **Basis of preparation and accounting policies.**

Reconciliation of key figures to IFRS

EURm, OR AS INDICATED	Q4/19	Q3/19	Q2/19	Q1/19	Q4/18	Q3/18	Q2/18	Q1/18	Q1–Q4/19	Q1–Q4/18
Comparable ROE, %										
Comparable profit for the period	261	281	271	305	319	330	258	288	1,119	1,194
Total equity, average	10,015	9,706	9,804	9,924	9,491	8,959	8,856	8,821	9,986	9,230
Comparable ROE, %	10.4	11.6	11.1	12.3	13.4	14.6	11.6	13.0	11.2	12.9
Net debt										
Non-current debt	1,195	1,179	1,126	1,139	753	732	750	720	1,195	753
Current debt	104	137	138	127	25	25	207	34	104	25
Total debt [1)]	1,299	1,316	1,264	1,267	778	757	957	755	1,299	778
Non-current interest-bearing assets	180	201	184	177	171	158	167	165	180	171
Cash and cash equivalents	1,536	1,080	678	1,064	888	549	369	528	1,536	888
Other current interest-bearing assets	35	38	36	31	30	46	20	20	35	30
Total interest-bearing assets	1,752	1,318	898	1,272	1,089	753	556	714	1,752	1,089
Net debt	-453	-2	366	-5	-311	4	401	41	-453	-311

1) Total debt increased in 2019 as a result of the adoption of IFRS 16 Leases 1 January 2019.
Refer to » **Basis of preparation and accounting policies.**

Quarterly information by business area

EURm, OR AS INDICATED	Q4/19	Q3/19	Q2/19	Q1/19	Q4/18	Q3/18	Q2/18	Q1/18	Q1–Q4/19	Q1–Q4/18
Sales										
UPM Biorefining	592	660	708	753	775	754	694	668	2,712	2,892
UPM Energy	110	101	93	113	100	101	83	107	417	391
UPM Raflatac	389	382	385	398	397	374	371	345	1,555	1,488
UPM Specialty Papers	353	344	359	357	364	354	368	343	1,412	1,429
UPM Communication Papers	1,098	1,116	1,138	1,200	1,206	1,209	1,149	1,126	4,552	4,690
UPM Plywood	101	106	120	123	119	112	125	125	450	480
Other operations	62	63	72	68	87	80	83	76	264	326
Internal sales	-259	-280	-269	-320	-318	-334	-289	-279	-1,129	-1,220
Eliminations and reconciliation	1	1	1	2	1	0	4	1	4	7
Sales, total	2,447	2,493	2,605	2,693	2,731	2,650	2,589	2,512	10,238	10,483
Comparable EBITDA										
UPM Biorefining [1]	96	171	203	254	282	297	199	233	724	1,011
UPM Energy	55	48	51	41	34	31	23	44	195	132
UPM Raflatac	43	44	40	40	35	41	44	36	166	156
UPM Specialty Papers	67	53	45	29	23	34	53	56	194	167
UPM Communication Papers	181	117	98	118	99	97	101	84	513	381
UPM Plywood	9	14	19	19	15	13	22	24	61	75
Other operations [1]	-17	4	3	-8	-14	-2	1	-13	-18	-28
Eliminations and reconciliation	8	4	8	-4	-2	-15	0	-9	17	-26
Comparable EBITDA, total [1]	442	455	466	488	473	497	442	456	1,851	1,868
Operating profit										
UPM Biorefining	42	130	161	212	241	256	155	195	544	847
UPM Energy	53	45	49	39	23	29	20	42	184	114
UPM Raflatac	33	36	30	26	27	33	37	29	124	126
UPM Specialty Papers	50	35	26	8	4	15	33	37	120	90
UPM Communication Papers	147	57	36	85	71	69	88	85	324	312
UPM Plywood	3	8	13	13	9	7	16	19	36	52
Other operations	7	1	-9	-9	365	25	0	-12	-10	380
Eliminations and reconciliation	2	5	14	0	4	-18	-2	-9	21	-25
Operating profit, total	336	316	319	373	744	417	349	385	1,344	1,895
% of sales	13.7	12.7	12.3	13.9	27.3	15.7	13.5	15.3	13.1	18.1
Items affecting comparability in operating profit										
UPM Biorefining	—	—	—	—	—	—	—	—	—	—
UPM Energy	—	—	-1	—	-9	—	—	—	-1	-9
UPM Raflatac	1	2	—	-5	—	—	—	—	-2	—
UPM Specialty Papers	—	—	—	—	—	—	—	—	—	—
UPM Communication Papers	-2	-28	-29	—	-1	—	17	30	-58	46
UPM Plywood	—	—	—	—	—	—	—	—	—	—
Other operations	—	-1	-2	—	345	—	—	—	-4	345
Eliminations and reconciliation [2]	-6	1	6	4	6	-3	-2	—	5	1
Items affecting comparability in operating profit, total	-7	-26	-26	-1	340	-3	15	30	-60	382
Comparable EBIT										
UPM Biorefining	42	130	161	212	241	256	155	195	544	847
UPM Energy	53	45	49	39	32	29	20	42	185	123
UPM Raflatac	32	34	30	31	27	33	37	29	126	126
UPM Specialty Papers	50	35	26	8	4	15	33	37	120	90
UPM Communication Papers	148	85	65	85	72	69	72	54	383	267
UPM Plywood	3	8	13	13	9	7	16	19	36	52
Other operations	7	2	-6	-9	21	25	0	-12	-7	35
Eliminations and reconciliation	8	4	8	-4	-2	-15	0	-9	17	-26
Comparable EBIT, total	343	342	345	374	404	420	334	355	1,404	1,513
% of sales	14.0	13.7	13.2	13.9	14.8	15.9	12.9	14.1	13.7	14.4

[1] The 2018 comparative figures have been restated due to accounting policy change of forest renewal costs. Refer to » **Basis of preparation and accounting policies.**
[2] Eliminations and reconciliations includes changes in fair value of unrealised cash flow and commodity hedges.

External sales by major products

BUSINESS AREA	BUSINESS	Q4/2019	Q4/2018	Q1–Q4/2019	Q1–Q4/2018
EURm					
UPM Biorefining	UPM Pulp UPM Biofuels UPM Timber	451	599	2,096	2,223
UPM Energy	UPM Energy	56	29	180	109
UPM Raflatac	UPM Raflatac	389	397	1,555	1,488
UPM Specialty Papers	UPM Specialty Papers	303	306	1,203	1,213
UPM Communication Papers	UPM Communication Papers	1,090	1,200	4,516	4,664
UPM Plywood	UPM Plywood	96	112	427	458
Other operations	UPM Forest UPM Biochemicals UPM Biomedicals UPM Biocomposites	60	86	258	321
Eliminations and reconciliations		1	1	4	7
Total		2,447	2,731	10,238	10,483

BUSINESS	PRODUCT RANGE
UPM Pulp	Softwood, birch and eucalyptus pulp
UPM Biofuels	Wood-based renewable diesel for transport and renewable naphtha for transport and petrochemicals
UPM Timber	Standard and special sawn timber
UPM Energy	Electricity and related services
UPM Raflatac	Self-adhesive paper and film label stock
UPM Specialty Papers	Labelling materials, release base papers, flexible packaging materials, office papers, graphic papers
UPM Communication Papers	Graphic papers for various end uses
UPM Plywood	Plywood and veneer products
UPM Forest	Wood and wood-based biomass (logs, pulpwood, chips, forest residues etc.), full forestry service offering
UPM Biochemicals	Lignin products for industrial use
UPM Biomedicals	Wood-based products for biomedical applications
UPM Biocomposites	UPM ProFi decking products and UPM Formi granules

Changes in property, plant and equipment

EURm	Q1–Q4/2019	Q1–Q4/2018
Book value at beginning of period	4,186	4,281
Reclassification to leased assets (IFRS 16)	-71	—
Reclassification to assets held for sale	-11	—
Capital expenditure	351	286
Decreases	-6	-15
Depreciation	-392	-408
Impairment charges	-13	0
Translation difference and other changes	41	41
Book value at end of period	4,083	4,186

Financial assets and liabilities measured at fair value

EURm	31 DEC 2019				31 DEC 2018			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Financial assets								
Derivatives non-qualifying hedges	—	17	—	17	—	16	—	16
Derivatives under hedge accounting	23	166	—	189	106	140	—	246
Energy shareholdings	—	—	2,145	2,145	—	—	2,159	2,159
Total	23	183	2,145	2,351	106	156	2,159	2,421
Financial liabilities								
Derivatives non-qualifying hedges	—	7	—	7	—	10	—	10
Derivatives under hedge accounting	7	22	—	28	15	56	—	71
Total	7	29	—	36	15	66	—	81

There have been no transfers between Levels.

Specific valuation techniques used to value financial instruments at level 2 include the following methods:

Interest forward rate agreements (FRA) are fair valued based on quoted market rates on the balance sheet date. Forward foreign exchange contracts are fair valued based on the contract forward rates at the balance sheet date.

Foreign currency options are fair valued based on quoted market rates and market volatility rates on the balance sheet date by using the Black&Scholes option valuation model. Interest and currency swap instruments are fair valued as present value of the estimated future cash flows based on observable yield curves. Commodity swaps are fair valued based on forward curve quotations received from service providers.

Fair value measurements using significant unobservable inputs, Level 3

	ENERGY SHAREHOLDINGS	
EURm	Q1–Q4/2019	Q1–Q4/2018
Book value at beginning of period	2,159	1,974
Disposals	-1	-1
Fair value changes recognised in other comprehensive income	-13	185
Book value at end of period	2,145	2,159

Fair valuation of energy shareholdings in the UPM Energy (Pohjolan Voima Oyj's A, B, B2, C, C2, M and V-shares, Kemijoki Oy shares, and Länsi-Suomen Voima Oy shares) is based on discounted cash flows model. The electricity price estimate is based on fundamental simulation of the Finnish area electricity price. A change of 5% in the electricity price used in the model would change the total value of the assets by approximately EUR 350 million.

The discount rate of 5.52% used in the valuation model is determined using the weighted average cost of capital method. A change of 0.5% in the discount rate would change the total value of the assets by approximately EUR 280 million. Other uncertainties and risk factors in the value of the assets relate to start-up schedule of the fixed price turn-key Olkiluoto 3 EPR nuclear power plant project. UPM's indirect share of the capacity of Olkiluoto 3 EPR is approximately 31%, through its PVO B2 shares. Changes in regulatory environment or taxation could also have an impact on the value of the energy generating assets.

Fair value of financial assets and liabilities measured at carrying amount

EURm	31 DEC 2019	31 DEC 2018
Non-current debt excl. derivative financial instruments and lease liabilities	682	659

The fair values of all other financial assets and liabilities approximate their carrying amount.

Commitments and contingencies

EURm	31 DEC 2019	31 DEC 2018
Own commitments		
Mortgages	1	1
On behalf of others		
Guarantees	2	2
Other own commitments		
Leasing commitments for the next 12 months in accordance with IFRS 16 [1)]	6	90
Leasing commitments for subsequent periods [1)]	—	464
Other commitments	104	92
Total	113	649

[1)] Leasing commitments have decreased as a result of the adoption of IFRS 16 Leases 1 January 2019.
Refer to » Basis of preparation and accounting policies.

The lease commitments for leases not commenced at year end totals approximately EUR 100 million and these relate to long-term charter agreements.

Capital commitments

EURm	COMPLETION	TOTAL COST	BY 31 DEC 2018	Q1–Q4/2019	AFTER 31 DEC 2019
CHP power plant / Germany	Q3 2022	95	—	—	95
New pulp mill / Uruguay	Q3 2022	2,730	—	46	2,684
Renovation and modernisation / Kuusankoski hydro power plant	Q4 2022	22	—	3	19
Paper machine conversion / Nordland paper mill	Q1 2020	124	35	74	15

Notional amounts of derivative financial instruments

EURm	31 DEC 2019	31 DEC 2018
Interest rate forward contracts	1,729	1,129
Interest rate swaps	334	753
Forward foreign exchange contracts	2,491	2,524
Currency options, bought	14	21
Currency options, written	10	31
Cross currency swaps	172	167
Commodity contracts	913	1,189

Assets classified as held for sale

Assets classified as held for sale relate to UPM Chapelle paper mill assets located in France. More information is presented under "Events during the year 2019".

Transactions with non-controlling interests

In September 2019, the new shareholders' agreements of Tile Forestal S.A., CUECAR S.A., Tebetur S.A. and Blanvira S.A. were signed reducing UPM's continuing interest in these companies to 91%. The proceeds of EUR 3 million were received from non-controlling interest in cash being the proportionate share of the carrying amount of the net assets of these subsidiaries.

In addition, the terms and conditions of UPM S.A. shareholders' agreement were amended in September 2019 resulting in recognition of 9% non-controlling interest amounting to EUR 63 million and derecognition of financial liability amounting to EUR 56 million. The difference amounting to EUR 7 million was recognised in equity as transactions with non-controlling interest. Prior to the amendment of the agreement the group accounted the portion belonging to non-controlling interests at the present value of the redemption amount within financial liability due to put option over non-controlling interests.

Basis of preparation and accounting policies

This unaudited interim report has been prepared in accordance with the accounting policies set out in International Accounting Standard 34 on Interim Financial Reporting and group's consolidated statements for 2018.

Alternative performance measures presented in this report should not be considered as a substitute for measures of performance in accordance with the IFRS and may not be comparable to similarly titled amounts used by other companies.

Figures presented in this report have been rounded and therefore the sum of individual figures might deviate from the presented total figure. Key figures have been calculated using exact figures.

Phase 1 amendments IFRS 9 and IFRS 7 for IBOR reform

The group has elected to early adopt the Amendments to IFRS 9 and IFRS 7 Interest Rate Benchmark Reform issued in September 2019. In accordance with the transition provision, the amendments have been adopted retrospectively to hedging relationships that existed at the start of the reporting period or where designated thereafter.

The amendments provide temporary relief from applying specific hedge accounting requirements to hedging relationships directly affected by IBOR reform. The reliefs have the effect that IBOR reform should not generally cause hedge accounting to terminate. However, any hedge ineffectiveness should continue to be recorded in the income statement. Furthermore, the amendments set out triggers for when the reliefs will end, which include the uncertainty arising from interests rate benchmark reform no longer being present.

The Group's risk exposure that is directly affected by the IBOR reform is fair value hedge accounting of long-term fixed-rate debt for changes in fair value attributable to USD LIBOR which is the current benchmark interest rate. Group currently has only few contracts which reference USD LIBOR and extend beyond 2021. Group Treasury oversees the Group's IBOR transition and follows changes to ISDA and other market guidelines on effects of these changes to UPM's contracts. In fair value hedging relationships, fair value for both the hedged item and hedging instrument is calculated with identical rate. Therefore no ineffectiveness is expected.

IFRS 16 Leases

On 1 January 2019, UPM has adopted IFRS 16 Leases standard and changed accounting policy of forest renewal costs. Description of effects of implementation and changes in accounting policies are presented below.

The group as a lessee

On 1 January 2019, UPM has changed its accounting policy regarding recognition, measurement, presentation and disclosure of leases. As a result, UPM as a lessee has recognised most of leases on the balance sheet and there is no distinction between operating and finance leases anymore.

Leases of property, plant and equipment where UPM, as a lessee, obtains substantially all of the economic benefits from the use of the identified asset and where UPM has the right to direct the use of the identified asset, are classified as leases.

The group recognises a leased asset and a lease liability at the lease commencement date, except for short-term leases. Short-term leases are leases where the duration of the lease term is 12 months or less. In case the contract includes a purchase option, it is not a short-term lease. UPM recognises lease payments of short-term leases as an expense on straight-line basis over the lease term.

The lease term of the different contracts is determined as the noncancellable period taking into consideration the options to extend and terminate if it is reasonably certain that the group will exercise the extension option or will not exercise the termination option. If the contract is for an indefinite period of time and the group and the lessor both have a right to terminate the contract within a short notice period (12 months or less) without a significant penalty, the contract is considered to be a short-term and the lease payments are expensed in the income statement on a straight-line basis over the lease term.

Leased asset comprises the initial lease liability, initial direct costs and the obligations to refurbish the asset, less any incentives granted by the lessors. The leased asset is subsequently valued at cost less accumulated depreciation and impairment losses. Remeasurement takes place in case lease liability is remeasured and change in cash flows is based on contract terms that have been included in the original contract. The leased asset is depreciated over the shorter of the asset's useful life and the lease term.

The lease liability is recognised at the commencement date and measured at the present value of the lease payments to be paid during the lease term. The group uses, as a basis, discount rate implicit in the lease and if that rate cannot be readily determined, UPM uses incremental borrowing rate which comprises of currency and lease period based reference rate and specific credit spread. Lease payments can include fixed payments, variable payments that depend on an index or rate and extension option payments or purchase options if it is reasonably certain that the group will exercise them. The lease liability is subsequently measured at amortised cost using the effective interest rate method and remeasured (with corresponding adjustment to the related leased asset) when there is a change in future lease payments due to renegotiation, changes of an index or rate or reassessment of options.

The group has elected to separate non-lease components such as service components and other variable components and account them for as expenses, if they can be separated from the leased asset. However, the group does not separate non-lease components from the lease contracts of company cars.

The group does not apply portfolio approach of leases with similar characteristics.

The group as a lessor

At inception of a lease contract, the group makes an assessment whether the lease is a finance lease or an operating lease. If the lease transfers substantially all of the risks and rewards incidental to ownership of the asset, it is considered to be a finance lease; if not, the lease is considered to be an operating lease. The group has only a minor amount of operating lease contracts, whereby the lease payments are recognised on a straight-line basis over the term of the lease.

Implementation of IFRS 16

The group has adopted the IFRS 16 standard using modified retrospective application method without restatement of comparatives. Under IFRS 16, a right-of-use asset (i.e. leased assets), representing right to use the underlying asset, and a lease liability, representing the obligation to make lease payments, is recognised on the balance sheet.

As part of the transition, leased assets of EUR 493 million and lease liabilities of EUR 491 million were recognised at the date of initial application on 1 January 2019. The most significant lease contracts recognised on the balance sheet consists of land areas, power plants and real estate. Leased assets are not included in the measure of Capital expenditure.

UPM estimated the remaining lease term as of 1 January 2019 and measured its lease liability at the present value of the remaining lease payments discounted using incremental borrowing rate at the date of application 1 January 2019. Lease payments relating to an optional renewal period in the lease liability were included only if it was reasonably certain that the group will exercise that option. The group applied IAS 36 Impairment of Assets to assess the leased assets for impairment at the date of initial application and consequently recognised an adjustment, net of tax, to the opening balance of retained earnings.

UPM applied short-term leases exemption consistently upon transition and subsequently for all asset classes.

For transition purposes UPM did not reassess previous decisions about existing contracts whether they are or contain a lease. Additionally, the group did not identify initial direct costs of leases previously classified as operating leases. At the date of initial application, the group did not apply practical exemption to account leases with the remaining term less than 12 months as short-term leases.

The Group has elected to separate lease and non-lease components for all asset classes except for company cars.

Upon transition, UPM did not make any adjustments to existing finance lease balances which have been accounted for in accordance with IAS 17. Subsequently, the group accounts for the leased asset and lease liability in accordance with the general requirements of IFRS 16.

The change in lease accounting has resulted in a reduction in operating costs (and therefore an increase in EBITDA), higher depreciation expenses and positive impact on operating profit. In addition, interest expenses have increased slightly. Cash generation was not impacted by the adoption of the standard. However, operating cash flow is positively impacted by it, given that a large part of the payments in relation to leases is now reported as financing cash flow (lease liability repayments).

The impact of the initial application of IFRS 16 by each balance sheet line item is described below. The balance sheet impact includes also the reclassification of finance leases recognised in accordance with IAS 17 at 31 December 2018 to leased assets and lease liability. In addition, certain long-term land use contracts were reclassified from intangible rights to leased assets. The corresponding lease liabilities have been settled in previous periods. Operating lease prepayments reported in trade and other receivables at 31.12.2018 were reclassified to leased assets.

Adjustments of opening balances

EURm	31 DEC 2018	IMPACT OF IFRS 16	1 JAN 2019
ASSETS			
Goodwill	236	—	236
Other intangible assets	295	–17	279
Property, plant and equipment	4,186	–71	4,114
Leased assets	—	581	581
Forecast assets	1,945	—	1,945
Energy shareholdings	2,159	—	2,159
Other non-current financial assets	178	—	178
Deferred tax assets	397	—	397
Net retirement benefit assets	38	—	38
Investments in associates and joint ventures	32	—	32
Other non-current assets	34	—	34
Non-current assets	9,501	493	9,994
Inventories	1,642	—	1,642
Trade and other receivables	1,833	-8	1,825
Other current financial assets	107	—	107
Income tax receivables	24	—	24
Cash and cash equivalents	888	—	888
Current assets	4,496	-8	4,488
Assets	13,996	485	14,482
EQUITY AND LIABILITIES			
Share capital	890	—	890
Treasury shares	–2	—	–2
Translation reserve	232	—	232
Other reserves	1,778	—	1,778
Reserve for invested non-restricted equity	1,273	—	1,273
Retained earnings	5,623	-6	5,617
Equity attributable to owners of the parent company	9,792	-6	9,786
Non-controlling interests	5	—	5
Equity	9,797	-6	9,791
Deferred tax liabilities	535	—	535
Net retirement benefit liabilities	679	—	679
Provisions	126	—	126
Non-current debt	753	422	1,175
Other non-current financial liabilities	101	—	101
Non-current liabilities	2,194	422	2,616
Current debt	25	69	94
Trade and other payables	1,881	—	1,881
Other current financial liabilities	78	—	78
Income tax payables	22	—	22
Current liabilities	2,005	69	2,074
Liabilities	4,199	491	4,690
Equity and liabilities	13,996	485	14,482

The following reconciliation to opening balance for the lease liabilities as of 1 January 2019 is based upon the operating lease commitments as of 31 December 2018:

EURm	
Operating lease commitments 31.12.2018	554
Recognition exemption for short-term leases	–7
Reasonably certain extension or termination options	53
Non-lease components (service components)	–27
Other	2
Gross lease liabilities at 1.1.2019	575
Discounting [1]	–84
Lease liability 1.1.2019	491
Present value of finance lease liabilities 31.12.2018	98
Total lease liabilities 1.1.2019	589

[1] The lease liabilities were discounted at incremental borrowing date as of 1.1.2019. The weighted-average incremental borrowing rate was 1.4%.

Accounting policy change of forest renewal costs

On 1 January 2019, UPM has changed its accounting policy relating to forest assets by capitalising forestry renewal costs on the balance sheet during the growth cycle and reclassifying forest assets-related cash flows from operating cash flow to investing cash flow. Previously UPM has recognised forestry renewal costs in income statement and reported forest assets-related cash flows, including forest renewal costs, forest asset purchases and sales, in operating cash flow. UPM has consistently increased the weight of the Southern hemisphere plantations in its forest asset portfolio, where the growth cycle is significantly shorter and significance of forestry renewal cost substantially higher compared to the Northern hemisphere. Majority of UPM's forest renewal costs are related to Southern hemisphere plantations. Thus, the change of accounting policy results in more relevant information on group's financial performance and cash flows.

The change has an impact on the following key figures in UPM group, UPM Biorefining and Other operations: EBITDA, EBITDA margin, operating and investing cash flows, operating cash flow per share and net debt to EBITDA ratio. Operating profit, comparable EBIT and balance sheet are not affected. The comparative years have been restated according to the new reporting principles.

UPM group

AS PUBLISHED	Q4/18	Q3/18	Q2/18	Q1/18	Q1–Q4/18
Comparable EBITDA, EURm	461	487	425	449	1,823
% of sales	16.9	18.4	16.4	17.9	17.4
Operating cash flow, EURm	420	434	329	208	1,391
Operating cash flow per share, EUR	0.79	0.81	0.62	0.39	2.61
Investing cash flow, EURm	-83	-61	-62	-54	-260
Net debt to EBITDA (last 12 m.)	-0.17	0.00	0.23	0.02	-0.17

RESTATED	Q4/18	Q3/18	Q2/18	Q1/18	Q1–Q4/18
Comparable EBITDA, EURm	473	497	442	456	1,868
% of sales	17.3	18.7	17.1	18.2	17.8
Operating cash flow, EURm	384	405	328	214	1,330
Operating cash flow per share, EUR	0.72	0.76	0.61	0.40	2.49
Investing cash flow, EURm	-46	-33	-61	-59	-199
Net debt to EBITDA (last 12 m.)	-0.17	0.00	0.22	0.02	-0.17

Comparable EBITDA by business area

AS PUBLISHED	Q4/18	Q3/18	Q2/18	Q1/18	Q1–Q4/18
EUR million					
UPM Biorefining	271	288	185	227	970
UPM Energy	34	31	23	44	132
UPM Raflatac	35	41	44	36	156
UPM Specialty Papers	23	34	53	56	167
UPM Communication Papers	99	97	101	84	381
UPM Plywood	15	13	22	24	75
Other operations	-14	-2	-2	-13	-31
Eliminations and reconciliations	-2	-15	0	-9	-26
Total	461	487	425	449	1,823

RESTATED	Q4/18	Q3/18	Q2/18	Q1/18	Q1–Q4/18
EUR million					
UPM Biorefining	282	297	199	233	1,011
UPM Energy	34	31	23	44	132
UPM Raflatac	35	41	44	36	156
UPM Specialty Papers	23	34	53	56	167
UPM Communication Papers	99	97	101	84	381
UPM Plywood	15	13	22	24	75
Other operations	-14	-2	1	-13	-28
Eliminations and reconciliations	-2	-15	0	-9	-26
Total	473	497	442	456	1,868

It should be noted that certain statements herein, which are not historical facts, including, without limitation, those regarding expectations for market growth and developments; expectations for growth and profitability; and statements preceded by "believes", "expects", "anticipates", "foresees", or similar expressions, are forward-looking statements. Since these statements are based on current plans, estimates and projections, they involve risks and uncertainties which may cause actual results to materially differ from those expressed in such forward-looking statements. Such factors include, but are not limited to: (1) **operating factors** such as continued success of manufacturing activities and the achievement of efficiencies therein including the availability and cost of production inputs, continued success of product development, acceptance of new products or services by the Group's targeted customers, success of the existing and future collaboration arrangements, changes in business strategy or development plans or targets, changes in the degree of protection created by the Group's patents and other intellectual property rights, the availability of capital on acceptable terms; (2) **industry conditions**, such as strength of product demand, intensity of competition, prevailing and future global market prices for the Group's products and the pricing pressures thereto, financial condition of the customers and the competitors of the Group, the potential introduction of competing products and technologies by competitors; and (3) **general economic conditions,** such as rates of economic growth in the Group's principal geographic markets or fluctuations in exchange and interest rates. The main earnings sensitivities and the group's cost structure are presented on pages 135–136 of the 2018 Annual Report. Risks and opportunities are discussed on pages 30–31 and risks and risk management are presented on pages 106–109 of the report.

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