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CREDIT OPINION
2 December 2020

Update

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RATINGS

UPM-Kymmene

Domicile	Helsinki, Finland
Long Term Rating	Baa1
Type	LT Issuer Rating - Dom Curr
Outlook	Stable

Please see the ratings section at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

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UPM-Kymmene

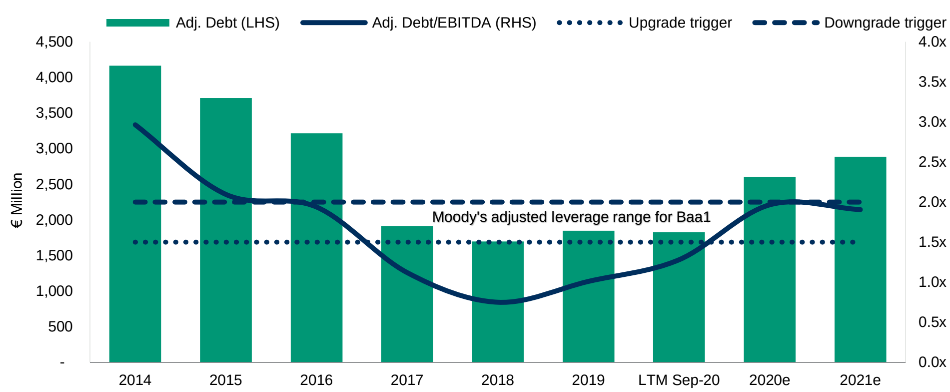
Update following €750 million notes issuance

Summary

The Baa1 issuer rating of UPM-Kymmene (UPM) primarily takes into account the company's large scale and global footprint, with market-leading positions across a broad product portfolio; track record of successful diversification beyond graphic-grade paper operations in mature markets, while keeping these operations profitable and cash flow generative on a sustained basis; good profitability and track record of significant positive free cash flow (FCF) at the group level on a sustained basis, despite the ongoing restructuring needs and sizeable investments in structurally growing business areas; and conservative financial policies, which we expect to also protect the group's financial strength during the forthcoming period of higher investment spending, with Moody's-adjusted debt/EBITDA likely to not move significantly above 2x for a prolonged period (1.8x for the 12 months that ended September 2020 on a pro forma basis for the issuance of the new €750 million notes).

The major constraints on UPM's Baa1 rating are the company's still sizeable exposure to the structurally declining graphic paper business in mature markets, which are subject to fairly tough pricing environments, and the need for ongoing restructuring and capacity reduction; the risk of volatility in its credit metrics because input costs as well as prices for most of its products are volatile, which reflects cyclical demand in some of the end-markets, at times exacerbated by periods of oversupply; and the risk of debt-funded growth, within UPM's publicly communicated net leverage ceiling of 2.0x (0.1x for the 12 months that ended September 2020).

Exhibit 1
UPM currently has limited capacity for further debt-funded growth within its Baa1 rating



Forward view represents Moody's view, not the view of the issuer, and does not incorporate any significant acquisitions, extraordinary shareholder distributions or investment projects (such as the Uruguay mill).
Source: Moody's Financial Metrics™

Credit strengths

» Market-leading positions across a fairly broad product portfolio

» Consistent FCF at the group level (excluding extraordinary capital spending), with contributions from all businesses (including graphic paper)

» Conservative financial policies commensurate with an investment-grade rating

Credit challenges

» Sizeable, although reduced, exposure to the structurally declining graphic paper business in mature markets

» The largely commodity-like nature of some of the company's structurally growing businesses (subject to fairly volatile market prices), which may translate into volatility in credit metrics

» Some risk of further debt-funded growth, which could (at least temporarily) hurt the company's solid leverage

Rating outlook

The stable rating outlook reflects our expectation that UPM will be able to sustain credit metrics that are commensurate with a Baa1 rating for the next 12-18 months, such that its Moody's-adjusted debt/EBITDA is not above 2.0x on a sustained basis, and also during the execution of biochemicals and pulp investments that is combined with the significant slowdown in macroeconomic growth as a result of the coronavirus pandemic.

Factors that could lead to an upgrade

» Further portfolio diversification

» A sustained improvement in Moody's-adjusted EBITDA margin above 20% through the cycle

» Financial policies consistent with Moody's-adjusted debt/EBITDA below 1.0x and Moody's-adjusted retained cash flow (RCF)/debt above 40%, both on a sustained basis

» A further reduction in UPM's dependence on the mature European and North American paper markets

» Further strengthening of liquidity

Factors that could lead to a downgrade

» Moody's-adjusted EBITDA margin declining towards 15% on a sustained basis

» Moody's-adjusted debt/EBITDA remaining above 2.0x on a sustained basis

» Moody's-adjusted RCF/debt below 30% for a prolonged period

» Erosion of liquidity as a result of an inability to execute the significant investments into its pulp and biochemicals businesses

Key indicators

Exhibit 2
UPM-Kymenne

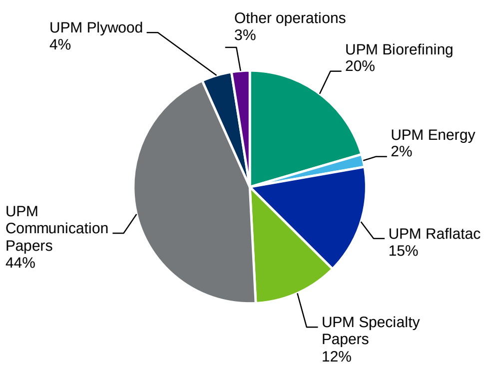
	Dec-15	Dec-16	Dec-17	Dec-18	Dec-19	LTM Sep-20 [1]	next 12-18 months
Revenue (USD billion)	$11.3	$10.9	$11.3	$12.4	$11.5	$9.9	$9.5 - $9.7
EBITDA Margin %	17.4%	17.1%	17.1%	21.6%	17.8%	16.2%	15.8% - 17.6%
RCF / Debt	24.2%	34.3%	50.8%	56.1%	48.0%	26.3%	15% - 30%
(RCF - CAPEX) / Debt	12.0%	22.4%	33.4%	37.0%	24.3%	-13.9%	-31% - -25%
Debt / EBITDA	2.1x	1.9x	1.1x	0.7x	1.0x	1.3x	1.8x - 2x
EBITDA / Interest Expense	8.9x	16.2x	20.6x	33.0x	33.3x	31.4x	18x - 22x

[1] Debt/EBITDA of 1.8x for the 12 months that ended September 2020 pro forma for the issuance of the new €750 million senior notes.
[2] Forward view represents Moody's view, not the view of the issuer, and does not incorporate significant acquisitions, investments or extraordinary shareholder distributions.
[3] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.
Source: Moody's Financial Metrics™

Profile

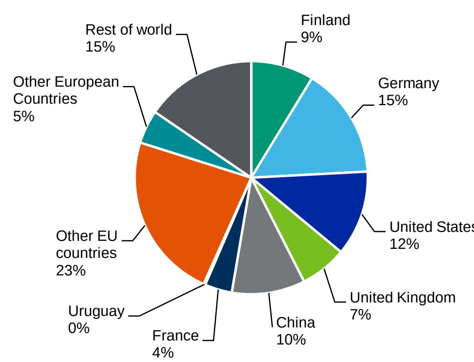
Headquartered in Helsinki, Finland, UPM-Kymmene (UPM) is one of the world's largest forest products companies, with sales of around €9 billion for the twelve months ended September 2020. Apart from having leading positions in major graphic paper grades, such as newsprint, magazine and fine paper, UPM is active in pulp and energy production, specialty paper, label materials and wood products. It also owns sizeable forest holdings in Europe and Latin America. The group has 51 production plants in 12 countries and 18,300 employees as of September 2020. UPM is publicly listed with a wide shareholder base. Its market capitalization was around €14.2 billion as of 23 November 2020.

Exhibit 3
UPM's external revenue by division
2019 sales



Source: UPM's 2019 annual report

Exhibit 4
UPM's revenue by geography
2019 sales



Source: UPM's 2019 annual report

Detailed credit considerations

Wide portfolio with a number of leading positions and good vertical integration

With group sales of around €8.8 billion for the 12 months that ended September 2020, UPM is one of the world's largest forest products companies, with a wide product portfolio and a number of leadership positions across its six divisions:

» **UPM Communication Papers**, which produces graphic paper for advertising, magazines, newspapers and home and office across all major grades. With a total annual production capacity of more than seven million tonnes in 2019, the company is the largest producer of graphic paper in Europe and the leader, or among the leaders, in most of the grades in fairly consolidated markets, competing, for instance, with Sappi Limited (Sappi, Ba2 stable) in most of the grades.

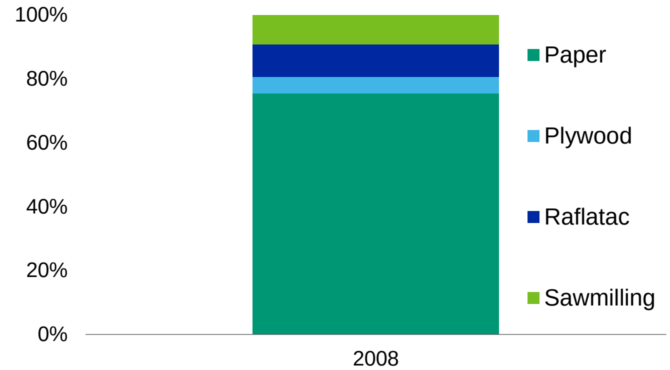
- **UPM Biorefining,** which is primarily focused on northern softwood, birch and eucalyptus pulp, with increasing offering in biofuels. With total market pulp deliveries of around 3.7 million tonnes for the 12 months that ended September 2020, UPM is still a fairly small company in the global pulp industry, with a global market share in mid-single digits in percentage terms in a relatively fragmented competitive landscape, but is among the key pulp producers in Europe.
- **UPM Energy**, which is the second-largest electricity producer in Finland through its hydro, nuclear and condensing power assets, with a total installed capacity of close to 1,500 megawatts in 2019.
- **UPM Raflatac**, which is the world's second-largest producer of self-adhesive label materials after Avery Dennison Corporation (Baa2 stable). It has a global presence and focuses on relatively stable and growing markets such as food, personal care and pharmaceuticals.
- **UPM Specialty Papers**, which supplies markets with label papers and release liners globally, with a leading position in the office paper market in China, which is still growing structurally.
- **UPM Plywood**, which offers plywood and veneer products, mainly for construction, vehicle flooring and the fairly profitable liquefied natural gas shipbuilding, where the company has a particularly strong market position benefitting from strong barriers to entry.

While traditionally focused on the mature European markets (around two-thirds of group's sales in 2019), UPM has an established presence in North America and has gradually expanded its footprint in the fast-growing Chinese market, most recently through its paper machine in Changshu. UPM's Baa1 rating also reflects the company's good level of backward integration into pulp (the company is long on pulp at group level), energy as well as wood, which helps it mitigate the impact of the inherent volatility in the key input costs on its profitability. The company's mills are generally efficient and well positioned in their respective cost curves.

Strategy to diversify beyond the structurally declining graphic paper business

One of the key factors supporting UPM's Baa1 rating is its successful ongoing diversification beyond graphic paper, the demand for which is subject to a secular decline, driven by digital substitution. Between 2013 and 2019, UPM progressively closed or converted around three million tonnes of graphic paper capacity to reflect the demand trend. The company is also expected to close graphic paper capacity of around one million tonnes by year-end 2020. At the same time, the company invested a sizeable amount of capital spending in other business areas with positive underlying growth and comparatively higher profitability. As a result, the proportion and importance of the graphic paper business decreased gradually to around 44% of the group's revenue in 2019 (and just around 25% of the group's operating income) from almost 80% in 2008. In addition, during the same period, the group's EBIT, as reported by UPM, more than doubled, while revenue remained broadly flat.

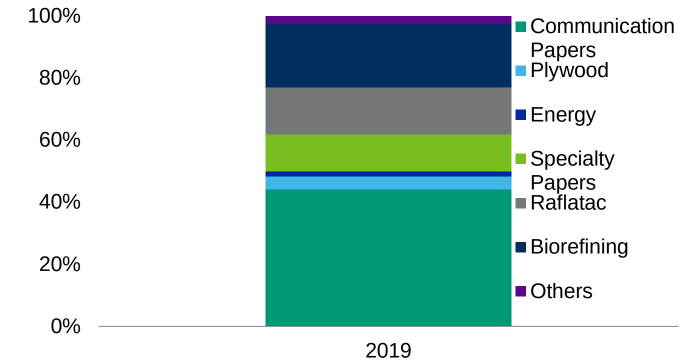
Exhibit 5
UPM's 2008 sales - Vertically integrated paper company



Sales	9.5bn
EBIT	513m
ROE	3.50%

Source: UPM's presentations

Exhibit 6
2019 sales of UPM's six separate businesses

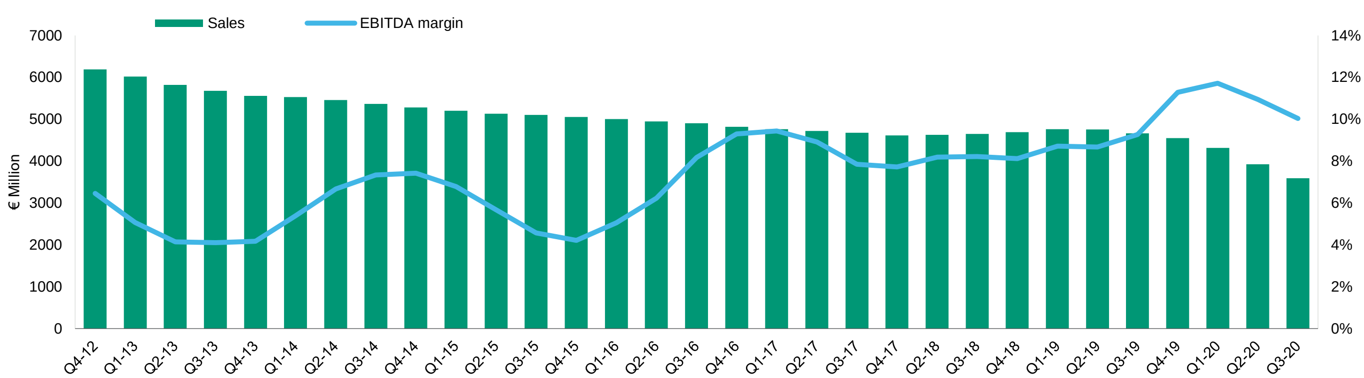


Sales	10.2bn
EBIT	1,404m
ROE	11.20%

Source: UPM's presentations

We estimate the paper business in Europe to continue to decline structurally at around 5% per year on average across all grades, predominantly because of digital substitution, in line with the average for the last decade, although the rate of decline will continue to vary depending on grade and the phase of general business cycle. The pandemic has accelerated the decline in graphic paper demand and entails some structural risk on the development of graphic paper demand because of a potential further shift in digitalization. Although most of the grades are likely to remain oversupplied in the coming years because of efficiencies coming from the scale and good quality of assets, as well as the ongoing strict cost management, UPM Communication Papers division, with an EBITDA margin of around 10% for the 12 months that ended September 2020 (as reported by UPM), is likely to remain profitable.

Exhibit 7
UPM Communication Papers' profitability has increased since 2016 as a result of higher sales prices that partly offset lower sales volume



Data as reported by UPM for the 12 months ending each quarter.
Source: UPM's reports

To ensure competitiveness, UPM decided to close two paper machines (Plattling and Rauma), removing 420,000 tonnes of capacity from the market in 2019 and convert the 200,000 tonnes paper machine in Nordland at the beginning of 2020. UPM also closed the 240,000 tonnes Chapelle newsprint mill in the third quarter of 2020 and is expected to close the 720,000 tonnes Kaipola newsprint mill in Q4 2020 removing around 1.2 million tonnes in total from the graphic paper market only in 2020. Additionally, the conversion of Stora Enso's Oulu mill and the reduction of CWF capacity by around 1.1 million tonnes is likely to mitigate the oversupply impact on the graphic paper market with positive impact expected to be reflected on the market in the beginning of 2021. Because of the fairly low maintenance capital spending of around €50 million per annum needed for UPM Communication Papers, such profitability levels will still enable UPM to continue to generate significant FCF in the business in the foreseeable future, which the company will reinvest in growth businesses or use for deleveraging. Over the last five years, UPM has generated (on average) roughly €330 million operating cash flow per year in the division.

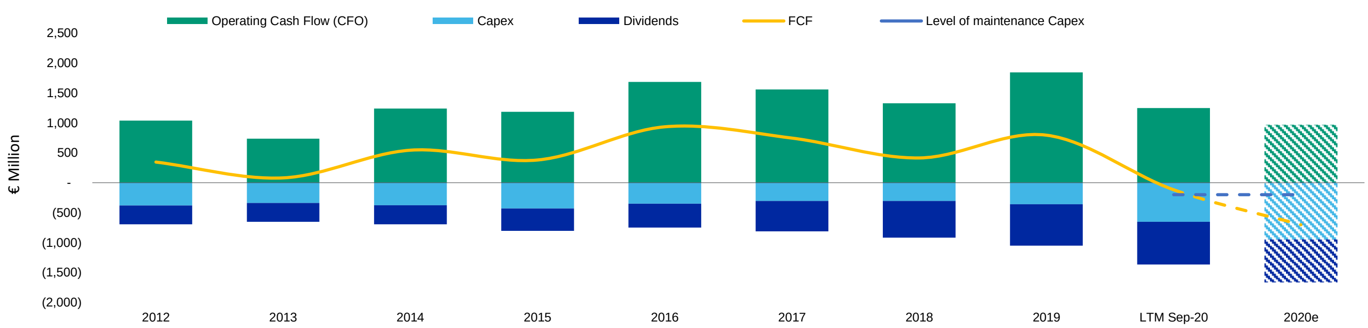
Segments such as labelling, specialty papers, pulp and wood products have positive underlying fundamentals. The underlying demand growth in these segments ranges between 2% and 4% per year, supported by megatrends such as urbanisation and increased consumption in emerging as well as increasing focus on climate change and sustainability. While we generally view diversification into these segments as credit positive, we caution that most of these businesses are sensitive to economic cycles and are subject to volatile pricing. This is particularly true for pulp, where the volatility is driven by periods of oversupply that could happen even in a growing market, because new supply coming on stream is often sizeable. This could lead to volatility in UPM's credit metrics, but the fairly wide portfolio provides some diversification. For instance, high pulp prices hurt the paper operations but are positive for the pulp business. We expect prices for most pulp grades will rebound modestly from recent troughs. Drivers include higher than normal supply disruptions and expectations of stronger demand from China following its recent announcement that imports of recovered paper will not be allowed starting in 2021. Over the next 12 months, we expect prices for most grades of pulp will increase by about 8%. However, with many schoolsand office buildings closed, weaker pulp demand by non-integrated commodity paper producers will limit a bigger recovery in pulp prices.

The transition beyond paper executed with a track record of positive FCF, with a healthy investment pipeline

One of the key supporting factors for UPM's Baa1 rating is the fact that the company continued to transition beyond graphic paper with consistently positive FCF. During 2012-19, UPM generated positive FCF of around €570 million per year on average (as defined and adjusted by Moody's), despite the ongoing restructuring in its paper business and sizeable investments in growth businesses — gross capital spending averaged around €360 million per year between 2012 and 2019, which was above the maintenance capital spending needs of roughly €200 million per year. UPM guides towards €950 million of capital spending for 2020 as a result of sizeable investments in the pulp and biochemicals businesses while we anticipate capital investments to accelerate in 2021 and increase to around €1.5 billion, which is likely to be covered by the cash buffer and operating cash flow along with the proceeds from the issuance of the new €750 million notes. The current capital spending plan also includes various smaller debottlenecking initiatives to increase plywood and release liner capacity.

Exhibit 8

UPM has managed the diversification process with a track record of significant positive FCF



Data as reported by UPM, but as defined by Moody's.
Forward view is Moody's view.
Source: Moody's Financial Metrics™

Strategic transformation accelerates pace with new pulp mill in Uruguay and entrance into the biochemicals business

UPM has initiated its next capital investment phase as part of its strategic transformation beyond graphic paper. In July 2019, the company decided to construct a 2.1-million-tonne greenfield eucalyptus pulp mill after reaching an agreement with the Government of Uruguay (Baa2 stable). The investment is likely to amount to around $2.7 billion, further supplemented by $350 million investments in port operations in Montevideo and local facilities in Paso de los Toros, where the mill will be located. UPM's investment is likely to be financed by the current cash buffer, operating cash flow and group financing, while capital allocation is going to be spread through

2020-22 with capital allocation likely to be more intensive in 2021 and 2022. Our base assumption includes roughly €1.5 billion debt funding for the project, which is likely to lead to an increase in leverage to around 2.0x debt/EBITDA by 2022 on a Moody's-adjusted basis. Annual capital spending related to the construction of the mill, with €550 million likely to be invested in 2020, will affect the company's Moody's-adjusted FCF, which is likely to be negative at around €700 million in 2020 and will remain negative in 2021 and 2022.

The new highly competitive mill, scheduled to ramp up in H2 2022, is likely to achieve above-market-average operating profitability and subsequently improve UPM's biorefining business profitability as a result of its competitive anticipated total cash cost of around $280 per delivered tonne of pulp, which positions the facility in the first quartile of the global hardwood pulp supply curve. However, the construction of the pulp mill and its optimisation entails some execution risk that might temporarily affect credit metrics during the construction phase.

Another step of the company in achieving transformative growth and profitability is the entrance into biochemicals business by investing €550 million in a biorefinery facility at Leuna, Germany with a total capacity of 220,000 tonnes that is scheduled to start up in 2022. The business will produce a series of new 100% wood-based biochemical products spanning across bio-monoethylene glycol and lignin-based functional fillers to monopropylene glycol and industrial sugars, aiming to provide an alternative to fossil materials in various consumer-driven end-uses. Growth and capitalization of market share in the new business will be supported by the strong underlying demand growth of roughly 4% in the 30-million-tonne global glycols market and around 3% growth in the 15-million-tonne global market of carbon black and silica where customers are increasingly committed to sustainable solutions. The project is likely to be financed by a combination of operating cash flow and debt funding in combination with the required capital spending for the new pulp mill in Uruguay. In 2020, we expect a respective capital outflow of around €100 million for financing the initial construction process, while the remaining €450 million is likely to be cashed out during 2021 and 2022.

Financial policies commensurate with a solid investment-grade rating, with some re-leveraging expected

UPM comes off a track of significant deleveraging over the last years. Its Moody's-adjusted debt significantly decreased to around €1.8 billion (including IFRS 16 impact) as of the end of September 2020 from around €4.7 billion as of the end of December 2013. The bulk of debt reduction was funded by the group's free cash flow generation with minimal contribution from non-core asset sales. In the context of financing its strategic investments in pulp and biochemicals businesses under its green finance framework, UPM issued €750 million of senior unsecured notes in November 2020, which increases its Moody's-adjusted debt to around €2.6 billion in 2020. As a result, its Moody's-adjusted debt/EBITDA is likely to increase to around 2.0x in 2020 from 1.3x for the 12 months ended that September 2020.

We believe that UPM is unlikely to operate with a Moody's-adjusted debt/EBITDA of around or somewhat above 2.0x for a prolonged period, which is consistent with a Baa1 rating. UPM has also stated that an investment-grade rating is an important element in its financing strategy. However, given the fact that UPM is operating well below its net leverage ceiling of 2.0x (as defined by UPM, compared with 0.1x for the 12 months ended September 2020), we see a temporary re-leveraging risk for UPM as illustrated by the issuance of €750 million senior unsecured notes. Nevertheless, under normal circumstances, UPM will aim to operate with capacity under the ceiling; if extraordinary debt-funded growth takes place during the investment phase in pulp and biochemicals businesses, the company will focus on deleveraging to regain the capacity within reasonable time given the company's strong cash flow generation capabilities and its track record of repaying debt from generated cash.

While we also expect that UPM will prioritise growth investments to further diversify beyond graphic paper, extraordinary shareholder distributions cannot be entirely excluded if the company does not find a better use of excess cash and continues to operate well below its leverage ceiling for a prolonged period. However, given a robust pipeline of potential projects, some of which are sizeable, we see that scenario currently as unlikely. In addition, so far, management's track record with regard to shareholder distributions has been conservative. UPM's ordinary dividend policy is not excessive and is tied to cash flow generation (30%-40% of operating cash flow), and has supported consistent positive FCF through the entire business transition period over the past decade. The company distributed a total dividend of €693 million for 2019, which translates into 38% of its operating cash flow in 2019.

ESG considerations

Despite the fact that the paper industry is a fairly large consumer of energy and water in the production processes, with occasional environmental incidents, we score it as “moderate risk” on our environmental risk heat map. This score means that we believe that the industry’s exposure to environmental risk is broadly manageable, or it could be material to credit quality in the medium to long term (five or more years).

UPM is one of the front-runners in Europe in its attempts to improve its carbon footprint by reducing the electricity and heat consumption per tonne and carbon dioxide (CO_2) emissions in relation to energy consumption. Under this framework, UPM has pledged to support the United Nations Global Compact’s Business Ambition for 1.5°C by committing to a 65% CO_2 emission reduction, climate positive forestry and by innovating through new climate positive products and solutions as illustrated by the new investment in biochemicals business. By year-end 2019, UPM achieved a 15% reduction in CO_2 emissions on absolute terms compared with the 2015 levels, a 12% reduction per UPM average product in acidifying flue gases since 2015 and a 70% renewable fuels share. In the field of water management, UPM achieved a 31% reduction in effluent load per UPM average product and a 10% reduction in wastewater volume since 2008. The company has 100% of owned land covered by forest certification schemes, given that sustainably managed forests play an important role in absorbing CO_2 while 82% of all wood sourced by UPM is certified and 100% is covered by a chain of custody system. The company is also actively looking into alternative use of lignin and hemicellulose for new applications, through its new biochemicals business, that could replace fossil-based solutions.

Social considerations are predominantly related to work conditions and support to employees. UPM has set specific goals under its 2030 Targets framework such as lower than 2% absenteeism rate and less than one lost-time accident frequency. UPM fosters diversity and inclusion, continuous learning development and safe and healthy working conditions. The group also develops and supports community involvement by promoting programmes that bring added value to local societies.

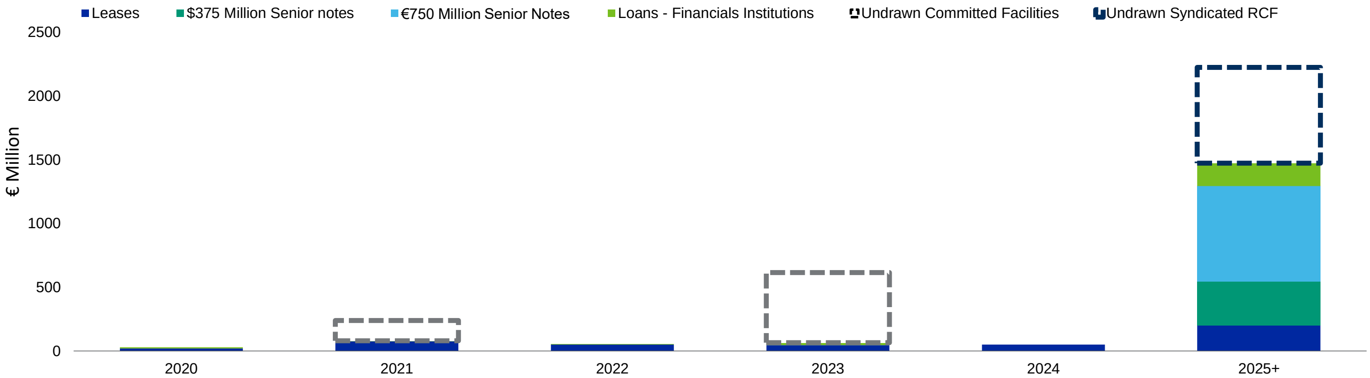
In addition, we regard the coronavirus pandemic as a social risk under our environmental, social and governance (ESG) framework, given the substantial credit implications for public health and safety.

Corporate governance at UPM is centred around the Finnish Limited Liability Companies Act and other laws and regulations applicable to publicly listed companies in Finland. UPM also complies with all recommendations of the Finnish Corporate Governance Code for listed companies while it has a well-established governance structure, which is state-of-the-art for a publicly listed company of its size. The company has committed to legal compliance and ethical practices as main pillars and foundation of its operations.

Liquidity analysis

UPM's liquidity is excellent. As of the end of September 2020, UPM reported about €900 million of cash and cash equivalents on its balance sheet, further underpinned by a fully undrawn €750 million syndicated revolving credit facility linked to biodiversity and climate targets and around €700 million of various committed facilities. As of the end of September 2020, UPM reported only around €88 million of short-term debt maturities and there are no material debt maturities until 2027, when the $375 million bond comes due.

Exhibit 9
Debt maturity profile
As of Q3 2020



Source: UPM's Q3 2020 report

Methodology and scorecard

We use our Paper and Forest Products Industry rating methodology, published in October 2018, as the primary methodology for assessing UPM. The methodology scorecard indicates a Baa2 outcome for our current and our 12-18-month forward view, which is one notch below the actual assigned rating of Baa1. The one-notch difference is driven by the fact that the (RCF - capital spending)/debt factor has been weakened by the considerable increase in capital spending for the new strategic investments in the pulp and biochemicals businesses.

Exhibit 10
Rating factors
UPM-Kymenne

Paper and Forest Products Industry Grid [1][2]	Current LTM 9/30/2020		Moody's 12-18 Month Forward View As of 11/23/2020 [3]	
Factor 1 : Scale (10%)	**Measure**	**Score**	**Measure**	**Score**
a) Revenue (USD Billion)	$9.9	Baa	$9.5 - $9.7	Baa
Factor 2 : Business Profile (30%)				
a) Product Line Diversification	A	A	A	A
b) Geographic and Operational Diversification	Baa	Baa	Baa	Baa
c) Market Position, Cyclicality and Growth Potential	Ba	Ba	Baa	Baa
Factor 3 : Profitability and Efficiency (15%)				
a) EBITDA Margin	16.2%	Ba	15.8% - 17.6%	Ba
b) Fiber and Energy Flexibility and Cost	Baa	Baa	Baa	Baa
Factor 4 : Leverage and Coverage (30%)				
a) RCF / Debt	26.3%	Baa	15% - 30%	Baa
b) (RCF - CAPEX) / Debt	-13.9%	Ca	-31% - -25%	Ca
c) Debt / EBITDA	1.3x	A	1.8x - 2x	Baa
d) EBITDA / Interest	31.4x	Aaa	18x - 22x	Aa
Factor 5 : Financial Policy (15%)				
a) Financial Policy	Baa	Baa	Baa	Baa
Rating:				
Indicated Outcome before Notching Adjustments		Baa3		Baa3
Notching Adjustments		0.5	0.5	0.5
a) Scorecard-Indicated Outcome		Baa2		Baa2
b) Actual Rating Assigned				Baa1

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.
[2] As of 09/30/2020.
[3] Forward view represents Moody's view, not the view of the issuer, and does not incorporate significant acquisitions, investments or extraordinary shareholder distributions.
Source: Moody's Financial Metrics™

Appendix

Exhibit 11

Peer comparison

	UPM-Kymmene Baa1 Stable			Mondi Plc Baa1 Stable			Domtar Corporation Baa3 Stable			Stora Enso Oyj Baa3 Stable			Sappi Limited Ba2 Stable		
(in USD million)	FYE Dec-18	FYE Dec-19	LTM Sep-20	FYE Dec-18	FYE Dec-19	LTM Jun-20	FYE Dec-18	FYE Dec-19	LTM Jun-20	FYE Dec-18	FYE Dec-19	LTM Sep-20	FYE Sep-18	FYE Sep-19	LTM Jun-20
Revenue	12,379	11,462	9,899	8,834	8,137	7,684	5,455	5,220	4,817	12,383	11,257	9,866	5,806	5,746	4,971
Operating Profit	2,192	1,511	1,082	1,503	1,360	1,164	405	267	115	1,500	1,475	1,382	480	411	147
EBITDA	2,677	2,038	1,599	2,035	1,840	1,639	737	586	432	2,162	2,085	2,012	810	737	465
Total Debt	1,939	2,072	2,140	2,711	2,658	3,157	1,035	1,155	1,297	5,070	5,398	5,996	2,335	2,373	2,549
Cash & Cash Equivalents	1,015	1,724	1,039	59	83	751	111	61	124	1,292	983	1,599	363	393	190
EBIT / Interest Expense	26.5x	24.6x	21.0x	13.5x	11.4x	9.5x	5.6x	4.2x	1.7x	6.8x	7.5x	7.5x	4.4x	3.8x	1.3x
Debt / EBITDA	0.7x	1.0x	1.3x	1.4x	1.4x	1.9x	1.4x	2.0x	3.0x	2.4x	2.6x	2.8x	2.9x	3.2x	5.5x
RCF / Net Debt	117.8%	285.8%	51.1%	26.5%	38.8%	50.1%	57.6%	31.3%	19.8%	37.3%	26.9%	27.9%	27.1%	25.9%	16.7%
FCF / Debt	25.9%	39.5%	-10.2%	-11.2%	2.5%	8.7%	26.5%	6.6%	4.6%	8.1%	12.0%	10.4%	-4.5%	-0.9%	-1.8%

All figures and ratios are calculated using Moody's estimates and standard adjustments. FYE = Fiscal year-end. LTM = Last 12 months.
Source: Moody's Financial Metrics™

Exhibit 12

Reconciliation of Moody's-adjusted debt

(in EUR million)	FYE Dec-15	FYE Dec-16	FYE Dec-17	FYE Dec-18	FYE Dec-19	LTM Sep-20
As Reported Total Debt	**3,066**	**2,420**	**1,114**	**777**	**1,300**	**1,279**
Pensions	677	751	565	613	699	699
Operating Leases	308	360	396	440	0	0
Non-Standard Adjustments	-344	-316	-162	-134	-153	-153
Moody's Adjusted Total Debt	**3,707**	**3,215**	**1,913**	**1,696**	**1,846**	**1,825**

Source: Moody's Financial Metrics™

Exhibit 13

Reconciliation of Moody's-adjusted EBITDA

(in EUR million)	FYE Dec-15	FYE Dec-16	FYE Dec-17	FYE Dec-18	FYE Dec-19	LTM Sep-20
As Reported EBITDA	**1,721**	**1,676**	**1,677**	**2,283**	**1,826**	**1,378**
Pensions	18	9	44	15	12	12
Operating Leases	51	48	42	44	0	0
Unusual	-18	-53	-49	-69	-15	41
Non-Standard Adjustments	-3	-5	-5	-6	-3	-3
Moody's Adjusted EBITDA	**1,769**	**1,675**	**1,709**	**2,267**	**1,820**	**1,428**

Moody's defines EBITDA as pretax income + interest expense.
Source: Moody's Financial Metrics™

Exhibit 14

Overview of UPM's key metrics

(in EUR million)	FYE Dec-15	FYE Dec-16	FYE Dec-17	FYE Dec-18	FYE Dec-19	LTM Sep-20
INCOME STATEMENT						
Revenue	10,138	9,812	10,010	10,483	10,238	8,839
EBITDA	1,769	1,675	1,709	2,267	1,820	1,428
EBIT	1,214	1,134	1,234	1,821	1,343	954
Interest Expense	198	104	83	69	55	46
BALANCE SHEET						
Cash & Cash Equivalents	626	992	716	888	1,536	886
Total Debt	3,707	3,215	1,913	1,696	1,846	1,825
CASH FLOW						
Funds from Operations (FFO)	1,272	1,502	1,479	1,565	1,579	1,196
Cash Flow From Operations (CFO)	1,245	1,737	1,586	1,378	1,860	1,263
Capital Expenditures	(455)	(381)	(333)	(325)	(437)	(734)
Dividends	373	400	507	613	693	716
Retained Cash Flow (RCF)	899	1,102	972	952	886	480
RCF / Debt	24.2%	34.3%	50.8%	56.1%	48.0%	26.3%
Free Cash Flow (FCF)	417	956	746	440	730	(187)
FCF / Debt	11.2%	29.7%	39.0%	25.9%	39.5%	-10.2%
PROFITABILITY						
% Change in Sales (YoY)	2.7%	-3.2%	2.0%	4.7%	-2.3%	-16.0%
EBIT margin %	12.0%	11.6%	12.3%	17.4%	13.1%	10.8%
EBITDA margin %	17.4%	17.1%	17.1%	21.6%	17.8%	16.2%
INTEREST COVERAGE						
EBIT / Interest Expense	6.1x	11.0x	14.9x	26.5x	24.6x	21.0x
EBITDA / Interest Expense	8.9x	16.2x	20.6x	33.0x	33.3x	31.4x
LEVERAGE						
Debt / EBITDA	2.1x	1.9x	1.1x	0.7x	1.0x	1.3x
Net Debt / EBITDA	1.7x	1.3x	0.7x	0.4x	0.2x	0.7x

All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.
Source: Moody's Financial Metrics™

Ratings

Exhibit 15

Category	Moody's Rating
UPM-KYMMENE	
Outlook	Stable
Issuer Rating -Dom Curr	Baa1
Senior Unsecured	Baa1

Source: Moody's Investors Service

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