

ASML Holding N.V.

The rating of ASML Holding N.V. is underpinned by its market-leading position in the design and manufacture of lithography (litho) tools, including its unique position in leading-edge tools (where it is effectively the industry's sole supplier), long-term R&D focus, effective outsourcing model and management of the supply chain, all of which lead to strong financial performance in market up-cycles and an increasing resilience and dampened volatility in a downturn.

A robust demand environment including a chip manufacturing industry operating at close to full capacity and strong demand for both leading-edge and more mature technology nodes provide good medium-term visibility. High margins, strong cash flow generation and a cautious financial policy compare ASML favourably within its peer group.

Residual volatility in integrated circuit (IC) demand and semiconductor capex trends and the technology industry's geopolitical sensitivities – while yet to manifest tangibly in ASML's business – weigh on the rating.

Key Rating Drivers

Lithography Leader: ASML is the market leader in the design and assembly of litho tools, the technology that is central to semiconductor production. The semiconductor market grew 11% in 2020 to more than USD450 billion, and Fitch Ratings expects it to grow strongly in the long term (IDC estimates 12.5% growth in 2021), as chips become ever smaller and more pervasive in all areas of daily life.

ASML has been instrumental in the development both of feature shrink and wafer throughput, which creates efficiencies and capacity improvements in chip technology. Fitch believes its focus on leading-edge technology positions ASML at a critical point in the chip production value chain.

Semi-Pervasion Key to Tech Evolution: Supply chip shortages that started in the auto industry have spread across multiple sector supply chains, with manufacturing capacity said to be extremely tight. Demand is spread widely with chips used in an increasing array of products including autos, industrial products, communications, white goods and consumables. Long-term drivers include AI, autonomous driving, cloud computing and all manner of "internet of things (IoT) applications, which will continue to fuel demand for ever more efficient litho tools.

Dampened Industry Volatility: Fitch views the historical correlation between semi-manufacturing, WFE investment and the economic cycle has loosened in recent years as the industry has grown in scale, unit semiconductor content has grown and as equipment spend becomes increasingly tied to wafer yield improvement and production efficiencies.

While individual foundry capex guidance can be somewhat erratic, long-term demand patterns suggest solid growth. An 8% rise in IC sales in 2020 is estimated to have driven a 12% rise in semi-manufacturing capex and 18% rise in WFE spend. WFE spending and, in particular, litho spend is driven as much by technology migrations as by near-term demand cycles.

DUV Longevity in Sales Mix: EUV lithography (extreme ultraviolet), the most advanced technology in commercial use, is firmly embedded in ASML's sales mix. Its EUV sales totalled EUR4.5 billion in 2020 and are expected to reach EUR5.8 billion out of a Fitch-forecast total sales of EUR17.5 billion for 2021. DUV (deep ultraviolet) tools represent by far the higher share of the sales mix and as a more mature technology attract a stronger gross margin (with R&D largely a historical expense).

Ratings

Rating type	Rating	Outlook	Last rating action
Long-Term IDR	A-	Stable	Affirmed 24 June 21

[Click here for full list of ratings](#)

Applicable Criteria

[Corporate Rating Criteria \(December 2020\)](#)

[Corporates Recovery Ratings and Instrument Ratings Criteria \(April 2021\)](#)

Related Research

[Protracted Global Chip Shortage Extends Sector's Cyclical Upturn](#)

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ASML now expects DUV sales to remain a more dominant part of the mix for longer than previously expected with demand in mature 28nm to 90nm manufacturing nodes driven by autos and other logic manufacturers, supporting both a strong volume and margin outlook.

Potential Margin Outperformance: Fitch expects management to shift upwards their scenario analysis for 2025, currently set at up to EUR24 billion in sales, when they publish capital-markets guidance later in the year. Trends in DUV and EUV sales lead us to believe that gross margin will comfortably meet 1Q21 guidance of 51%- 52% for 2021.

2021 Another Strong Year: Despite some caution at the start of the year given pandemic-related uncertainties, 2020 turned out to be a record year for ASML. Sales of EUR14 billion were ahead more than 18% while its gross margin of 48.6% was 3.9pp ahead and its operating margin a high of 25.4%. Strong cash flow saw the company close the year with cash of EUR7.4 billion (net cash of EUR2.7 billion). Demand and sales-mix conditions support our expectation of a further record year in 2021.

EUV No Longer Margin-Dilutive: Next generation technologies, e.g. EUV, generate lower gross margins in their early stages due to relatively low unit volumes and a high R&D commitment; the converse being the case for older-generation tools. EUV system gross margin in 2020 of 40% compares with the group level margin approaching 49% and is rising strongly. It is possible EUV margins could reach parity with the group level by 2H21.

Installed base management (services and field upgrades) now accounts for more than 25% of total sales and include a positive margin contribution from EUV; a feature we believe further reduces exposure to revenue and margin volatility.

Measured Financial Policy: Despite our view of dampened volatility in ASML's business, we regard a conservative financial policy as a support for the rating. A commitment to a EUR2 billion-2.5 billion cash buffer allows for uninterrupted long-term funding - mainly R&D and capex - in a downturn.

A more progressive dividend policy than in the past (15% growth in 2020) is nonetheless prudent relative to cash flow generation. Excess free cash flow (FCF) is distributed via share buybacks, which were paused in 1Q20 (since resumed) given caution over potential Covid-19 disruption. We do not view M&A risk as high.

Financial Summary

ASML Holding N.V.

(EURm)	Dec 18	Dec 19	Dec 20	Dec 21F	Dec 22F	Dec 23F
Gross revenue	10,944	11,820	13,979	17,470	19,137	20,910
Operating EBITDA margin (%)	31.0	26.7	31.9	34.0	34.5	35.0
FFO margin (%)	28.6	27.2	28.8	30.8	31.1	31.8
FFO net leverage (x)	-0.3	-0.5	-0.7	-0.2	-0.3	-0.5
FFO interest coverage (x)	52.1	53.9	63.3	77.5	85.6	95.7

F - Forecast

Source: Fitch Ratings, Fitch Solutions

Rating Derivation Relative to Peers

ASML has one of the strongest cash-generative capabilities in the technology sector, which is supported by a revenue market share in its niche segment in excess of 80%. The company's technology supports the development and innovation of the much larger semiconductor manufacturing sector. Barriers to entry are created by knowledge, technology expertise, capital investment requirements and customer partnerships.

Exposure to cyclical and product concentration risks is managed through conservative and flexible financial policies. These factors mean ASML is strongly positioned compared with its semi-conductor equipment and process control peers, such as KLA Corporation (BBB+/Stable) and Applied Materials Inc.

Rating Sensitivities

Factors that Could, Individually or Collectively, Lead to Positive Rating

Action/Upgrade:

- Positive rating action for ASML is unlikely in the near term. The unique nature of its business, including the cyclical nature of customers' end-markets, technology migrations that create a need for high R&D investment and the company's limited diversification, is a constraint on the rating

Factors that Could, Individually or Collectively, Lead to Negative Rating

Action/Downgrade:

- Operating margins materially below 10%-15% in downturns and below 25%-30% at the peak of upcycles. However, Fitch recognises that operating losses may be incurred during extreme cyclical contractions
- Liquidity (defined as gross cash plus undrawn, committed revolving credit facilities, or RCFs, beyond two years, less any debt maturities occurring within two years) consistently below EUR1.5 billion. The company has publicly committed to a strong cash balance
- Major loss of market share, which would signal a rapid shift in market position and probably reflect a sustained negative trend
- Funds from operations (FFO) net leverage remaining above 1.0x on a sustained basis

Liquidity and Debt Structure

Strong Liquidity: ASML maintains a strong cash position, which covers all debt maturities for at least the next four years. The company targets a minimum gross cash buffer of EUR2 billion to EUR2.5 billion. As of end-2020, ASML held EUR6,049 million in cash and cash-equivalents and EUR1,302 million in short-term investments. ASML also has access to an undrawn sustainability-linked RCF of EUR700 million maturing 2026.

ESG Considerations

Unless otherwise disclosed in this section, the highest level of ESG credit relevance is a score of '3'. This means ESG issues are credit-neutral or have only a minimal credit impact on the entity, either due to their nature or the way in which they are being managed by the entity. For more information on Fitch's ESG Relevance Scores, visit www.fitchratings.com/esg.

Liquidity and Debt Maturities

ASML Holding N.V. – Liquidity Analysis

(EURm)	2021F	2022F	2023F
Available liquidity			
Beginning cash balance	7,351	9,768	12,108
Rating-case FCF after acquisitions and divestitures	2,417	2,840	3,403
Total available liquidity (A)	9,768	12,608	15,511
Liquidity uses			
Debt maturities	0	-500	-750
Total liquidity uses (B)	0	-500	-750
Liquidity calculation			
Ending cash balance (A+B)	9,768	12,108	14,761
Revolver availability	700	700	700
Ending liquidity	10,468	12,808	15,461
Liquidity score (x)	Not meaningful	26.6	21.6

F – Forecast

Source: Fitch Ratings, Fitch Solutions, ASML Holding N.V.

Scheduled debt maturities (EURm)	Original 31 Dec 20
2021	0
2022	500
2023	750
2024	0
2025	0
Thereafter	3,250
Total	4,500

Source: Fitch Ratings, Fitch Solutions, ASML Holding N.V.

Key Assumptions

Fitch's Key Assumptions Within the Rating Case for the Issuer

- Revenue to grow at 25% in 2021, slowing to high single digits in the following three years.
- EBITDA margin to increase to 34.5% in 2021 and up to 35.5% by 2023 as the EUV margin and overall gross margin improve.
- Capex as a share of revenue at 6.5% in 2021, decreasing to 4.5% in 2023.
- Biannual dividends to increase 14% a year from around EUR1.2 billion in 2021.
- Share buybacks of EUR4 billion in 2021, followed by EUR2 billion a year to 2023.

Financial Data

ASML Holding N.V.

(EURm)	Historical			Forecast		
	Dec 18	Dec 19	Dec 20	Dec 21	Dec 22	Dec 23
Summary income statement						
Gross revenue	10,944	11,820	13,979	17,470	19,137	20,910
Revenue growth (%)	20.9	8.0	18.3	25.0	9.5	9.3
Operating EBITDA (before income from associates)	3,388	3,154	4,462	5,933	6,595	7,311
Operating EBITDA margin (%)	31.0	26.7	31.9	34.0	34.5	35.0
Operating EBITDAR	3,455	3,239	4,542	6,013	6,678	7,398
Operating EBITDAR margin (%)	31.6	27.4	32.5	34.4	34.9	35.4
Operating EBIT	2,965	2,785	4,048	5,416	6,028	6,691
Operating EBIT margin (%)	27.1	23.6	29.0	31.0	31.5	32.0
Gross interest expense	-28	-32	-39	-70	-70	-70
Pretax income (including associate income/loss)	2,951	2,765	4,017	5,359	5,968	6,633
Summary balance sheet						
Readily available cash and equivalents	4,034	4,718	7,351	5,768	6,608	8,011
Total debt with equity credit	3,027	3,108	4,678	4,678	4,678	4,678
Total adjusted debt with equity credit	3,563	3,788	5,318	5,311	5,343	5,375
Net debt	-1,007	-1,610	-2,673	-1,090	-1,930	-3,333
Summary cash flow statement						
Operating EBITDA	3,388	3,154	4,462	5,933	6,595	7,311
Cash interest paid	-61	-60	-64	-70	-70	-70
Cash tax	-554	-679	-650	-874	-973	-1,081
Dividends received less dividends paid to minorities (inflow/(out)flow)	89	100	128	0	0	90
Other items before FFO	256	661	111	377	385	394
Funds flow from operations	3,132	3,215	4,019	5,380	5,948	6,656
FFO margin (%)	28.6	27.2	28.8	30.8	31.1	31.8
Change in working capital	-59	112	532	-611	-670	-732
Cash flow from operations (Fitch defined)	3,073	3,327	4,551	4,769	5,278	5,924
Total non-operating/non-recurring cash flow	0	-131	0			
Capital expenditure	-610	-886	-1,001			
Capital intensity (capex/revenue) (%)	5.6	7.5	7.2			
Common dividends	-597	-1,326	-1,066			
Free cash flow	1,866	984	2,484			
Net acquisitions and divestitures	0	0	-223			
Other investing and financing cash flow items	123	-186	-57	0	0	0
Net debt proceeds	-3	-4	1,483	0	0	0
Net equity proceeds	-1,124	-383	-1,170	-4,000	-2,000	-2,000
Total change in cash	862	411	2,517	-1,583	840	1,403
Leverage ratios						
Total net debt with equity credit/operating EBITDA (x)	-0.3	-0.5	-0.6	-0.2	-0.3	-0.5
Total adjusted debt/operating EBITDAR (x)	1.0	1.1	1.1	0.9	0.8	0.7
Total adjusted net debt/operating EBITDAR (x)	-0.1	-0.3	-0.4	-0.1	-0.2	-0.4
Total debt with equity credit/operating EBITDA (x)	0.9	1.0	1.0	0.8	0.7	0.6
FFO adjusted leverage (x)	1.1	1.1	1.3	1.0	0.9	0.8
FFO adjusted net leverage (x)	-0.1	-0.3	-0.5	-0.1	-0.2	-0.4
FFO leverage (x)	1.0	1.0	1.2	0.9	0.8	0.7
FFO net leverage (x)	-0.3	-0.5	-0.7	-0.2	-0.3	-0.5
Calculations for forecast publication						
Capex, dividends, acquisitions and other items before FCF	-1,207	-2,343	-2,290	-2,352	-2,439	-2,521
Free cash flow after acquisitions and divestitures	1,866	984	2,261	2,417	2,840	3,403
Free cash flow margin (after net acquisitions) (%)	17.1	8.3	16.2	13.8	14.8	16.3
Coverage ratios						
FFO interest coverage (x)	52.1	53.9	63.3	77.5	85.6	95.7
FFO fixed-charge coverage (x)	25.4	22.9	28.7	37.0	39.7	43.2
Operating EBITDAR/interest paid + rents (x)	27.7	23.0	32.4	40.3	43.6	47.6
Operating EBITDA/interest paid (x)	57.0	54.2	71.7	84.6	94.0	105.5
Additional metrics						
CFO-capex/total debt with equity credit (%)	81.4	78.5	75.9	77.7	90.3	106.5
CFO-capex/total net debt with equity credit (%)	-244.6	-151.6	-132.8	-333.3	-218.9	-149.5

Source: Fitch Ratings, Fitch Solutions

How to Interpret the Forecast Presented

The forecast presented is based on Fitch Ratings' internally produced, conservative rating case forecast. It does not represent the forecast of the rated issuer. The forecast set out above is only one component used by Fitch Ratings to assign a rating or determine a rating outlook, and the information in the forecast reflects material but not exhaustive elements of Fitch Ratings' rating assumptions for the issuer's financial performance. As such, it cannot be used to establish a rating, and it should not be relied on for that purpose. Fitch Ratings' forecasts are constructed using a proprietary internal forecasting tool, which employs Fitch Ratings' own assumptions on operating and financial performance that may not reflect the assumptions that you would make. Fitch Ratings' own definitions of financial terms such as EBITDA, debt or free cash flow may differ from your own such definitions. Fitch Ratings may be granted access, from time to time, to confidential information on certain elements of the issuer's forward planning. Certain elements of such information may be omitted from this forecast, even where they are included in Fitch Ratings' own internal deliberations, where Fitch Ratings, at its sole discretion, considers the data may be potentially sensitive in a commercial, legal or regulatory context. The forecast (as with the entirety of this report) is produced strictly subject to the disclaimers set out at the end of this report. Fitch Ratings may update the forecast in future reports but assumes no responsibility to do so. Original financial statement data for historical periods is processed by Fitch Solutions on behalf of Fitch Ratings. Key financial adjustments and all financial forecasts credited to Fitch Ratings are generated by rating agency staff.

Ratings Navigator

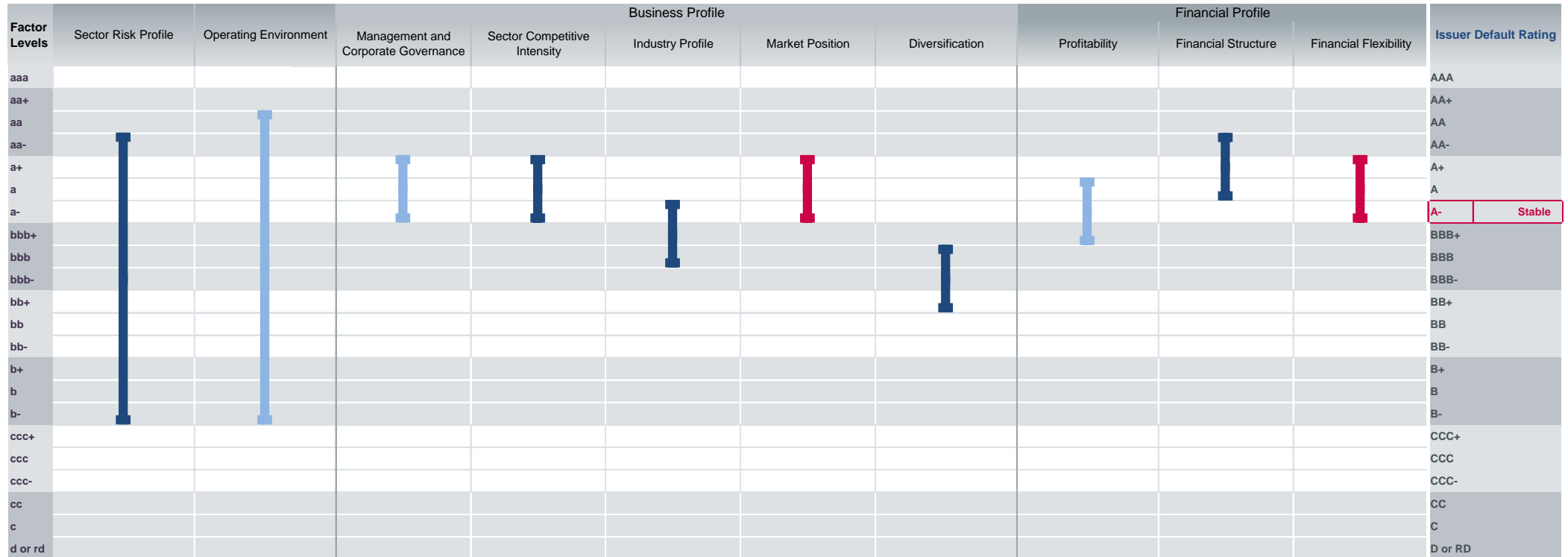
FitchRatings

ASML Holding N.V.

ESG Relevance:



Corporates Ratings Navigator
Technology



Bar Chart Legend:

Vertical Bars = Range of Rating Factor		Bar Arrows = Rating Factor Outlook	
Bar Colours = Relative Importance		↑	Positive
■	Higher Importance	↓	Negative
■	Average Importance	↕	Evolving
■	Lower Importance	□	Stable

Operating Environment

aa+	Economic Environment	aa	Very strong combination of countries where economic value is created and where assets are located.
aa	Financial Access	aa	Very strong combination of issuer specific funding characteristics and of the strength of the relevant local financial market.
	Systemic Governance	aa	Systemic governance (eg rule of law, corruption; government effectiveness) of the issuer's country of incorporation consistent with 'aa'
b-			
ccc+			

Sector Competitive Intensity

aa-	Industry Structure	a	Reduced number of competitors with clear leader.
a+	Barriers to Entry/Exit	aa	Very high barriers to entry. Emergence of significant new entrants in the rating horizon close to impossible.
a	Relative Power in the Value Chain	bbb	Relative bargaining power balanced with suppliers and customers.
a-			
bbb+			

Market Position

aa-	Market Share	aa	Market leader in most of its segments.
a+	Competitive Advantage	a	Strong competitive advantages but at some risk from competitors.
a			
a-			
bbb+			

Profitability

a+	FFO margin	aa	30%
a	EBIT margin	aa	30%
a-	FCF margin	aa	14%
bbb+	Volatility of Profitability	bb	Higher volatility of profits than industry average.
bbb			

Financial Flexibility

aa-	Financial Discipline	aa	Publicly announced conservative financial policy. Track record of strict compliance.
a+	Liquidity	aa	Very comfortable liquidity; no need to use external funding in the next 24 months even under a severe stress scenario. Well-spread debt maturity. Diversified sources of funding.
a	FFO Interest Coverage	aa	13.0x
a-	FX Exposure	bbb	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging in place.
bbb+			

How to Read This Page: The left column shows the three-notch band assessment for the overall Factor, illustrated by a bar. The right column breaks down the Factor into Sub-Factors, with a description appropriate for each Sub-Factor and its corresponding category.

Management and Corporate Governance

aa-	Management Strategy	a	Coherent strategy and good track record in implementation.
a+	Governance Structure	a	Experienced board exercising effective check and balances. Ownership can be concentrated among several shareholders.
a	Group Structure	a	Group structure shows some complexity but mitigated by transparent reporting.
a-	Financial Transparency	bbb	Good quality reporting without significant failing. Consistent with the average of listed companies in major exchanges.
bbb+			

Industry Profile

a	Long-Term Growth Potential	bbb	Mature industry. Traditional markets may be under some pressure but opportunities arise in new markets.
a-	Volatility of Demand	bb	Demand fluctuations exceed economic cycles
bbb+	Threat of Substitutes	aa	No medium-term risk from technological substitution.
bbb			
bbb-			

Diversification

bbb+	End-Market Diversification	a	Well balanced exposure to at least three business lines or markets with different sensitivity to the economic cycle
bbb	Customer Concentration	b	Significant customer concentration, including more than one customer representing 10% or more of total revenue.
bbb-			
bb+			
bb			

Financial Structure

aa	FFO Leverage	aa	0.8x
aa-	FFO Net Leverage	aa	0.0x
a+	(CFO-Capex)/Total Debt With Equity Credit	aa	>40%
a	Total Debt With Equity Credit/FCF	a	3.0x
a-	Total Debt With Equity Credit/Op. EBITDA	aa	0.6x

Credit-Relevant ESG Derivation

				Overall ESG			
ASML Holding N.V. has 10 ESG potential rating drivers				key driver	0	issues	5
→	Energy consumption in operations			driver	0	issues	4
→	Water usage in semiconductor fabrication process			potential driver	10	issues	3
→	Waste usage in the fabrication and manufacturing process			not a rating driver	1	issues	2
→	Data security				3	issues	1
→	Impact of labor negotiations and employee (dis)satisfaction; employee recruitment and retention						
→	Shift in consumer preferences and social trends						

Showing top 6 issues

For further details on Credit-Relevant ESG scoring, see page 3.

Credit-Relevant ESG Derivation

ASML Holding N.V. has 10 ESG potential rating drivers

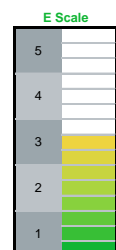
- ➔ ASML Holding N.V. has exposure to energy productivity risk but this has very low impact on the rating.
- ➔ ASML Holding N.V. has exposure to water management risk but this has very low impact on the rating.
- ➔ ASML Holding N.V. has exposure to waste & impact management risk but this has very low impact on the rating.
- ➔ ASML Holding N.V. has exposure to customer accountability risk but this has very low impact on the rating.
- ➔ ASML Holding N.V. has exposure to labor relations & practices risk and employee recruitment & retention risk but this has very low impact on the rating.
- ➔ ASML Holding N.V. has exposure to shifting consumer preferences but this has very low impact on the rating.

Showing top 6 issues

			Overall ESG Scale	
key driver	0	issues	5	
driver	0	issues	4	
potential driver	10	issues	3	
not a rating driver	1	issues	2	
	3	issues	1	

Environmental (E)

General Issues	E Score	Sector-Specific Issues	Reference
GHG Emissions & Air Quality	2	Emissions from the fabrication process	Profitability
Energy Management	3	Energy consumption in operations	Profitability
Water & Wastewater Management	3	Water usage in semiconductor fabrication process	Profitability
Waste & Hazardous Materials Management; Ecological Impacts	3	Waste usage in the fabrication and manufacturing process	Profitability
Exposure to Environmental Impacts	1	n.a.	n.a.



How to Read This Page

ESG scores range from 1 to 5 based on a 15-level color gradation. Red (5) is most relevant and green (1) is least relevant.

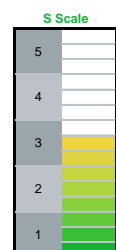
The Environmental (E), Social (S) and Governance (G) tables break out the individual components of the scale. The right-hand box shows the aggregate E, S, or G score. General Issues are relevant across all markets with Sector-Specific Issues unique to a particular industry group. Scores are assigned to each sector-specific issue. These scores signify the credit-relevance of the sector-specific issues to the issuing entity's overall credit rating. The Reference box highlights the factor(s) within which the corresponding ESG issues are captured in Fitch's credit analysis.

The Credit-Relevant ESG Derivation table shows the overall ESG score. This score signifies the credit relevance of combined E, S and G issues to the entity's credit rating. The three columns to the left of the overall ESG score summarize the issuing entity's sub-component ESG scores. The box on the far left identifies the some of the main ESG issues that are drivers or potential drivers of the issuing entity's credit rating (corresponding with scores of 3, 4 or 5) and provides a brief explanation for the score.

Classification of ESG issues has been developed from Fitch's sector ratings criteria. The General Issues and Sector-Specific Issues draw on the classification standards published by the United Nations Principles for Responsible Investing (PRI) and the Sustainability Accounting Standards Board (SASB).

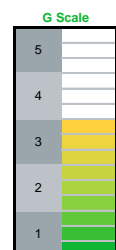
Social (S)

General Issues	S Score	Sector-Specific Issues	Reference
Human Rights, Community Relations, Access & Affordability	1	n.a.	n.a.
Customer Welfare - Fair Messaging, Privacy & Data Security	3	Data security	Sector Trend; Company's Market Position; Profitability
Labor Relations & Practices	3	Impact of labor negotiations and employee (dis)satisfaction; employee recruitment and retention	Sector Trend; Company's Market Position; Sector Competitive Intensity; Profitability
Employee Wellbeing	1	n.a.	n.a.
Exposure to Social Impacts	3	Shift in consumer preferences and social trends	Diversification; Sector Trend; Company's Market Position; Profitability



Governance (G)

General Issues	G Score	Sector-Specific Issues	Reference
Management Strategy	3	Strategy development and implementation	Management and Corporate Governance
Governance Structure	3	Board independence and effectiveness; ownership concentration	Management and Corporate Governance
Group Structure	3	Complexity, transparency and related-party transactions	Management and Corporate Governance
Financial Transparency	3	Quality and timing of financial disclosure	Management and Corporate Governance

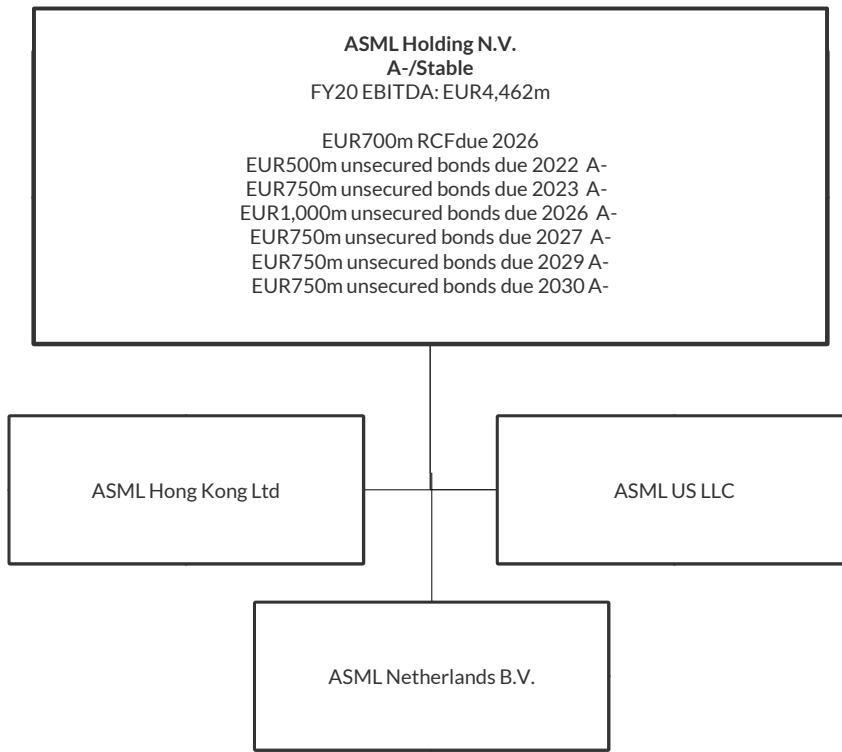


CREDIT-RELEVANT ESG SCALE

How relevant are E, S and G issues to the overall credit rating?

5		Highly relevant, a key rating driver that has a significant impact on the rating on an individual basis. Equivalent to "higher" relative importance within Navigator.
4		Relevant to rating, not a key rating driver but has an impact on the rating in combination with other factors. Equivalent to "moderate" relative importance within Navigator.
3		Minimally relevant to rating, either very low impact or actively managed in a way that results in no impact on the entity rating. Equivalent to "lower" relative importance within Navigator.
2		Irrelevant to the entity rating but relevant to the sector.
1		Irrelevant to the entity rating and irrelevant to the sector.

Simplified Group Structure Diagram



Note: FY20 = financial year ending December 2020.
Source: Fitch Ratings, Fitch Solutions, ASML, as of December 2020, pro forma the RCF extension in 2021

Peer Financial Summary

Company	Issuer Default Rating	Financial statement date	Gross revenue (EURm)	Operating EBITDA margin (%)	FFO margin (%)	FFO net leverage (x)	FFO interest coverage (x)
ASML Holding N.V.	A-						
	A-	2020	13,979	31.9	28.8	-0.7	63.3
	A-	2019	11,820	26.7	27.2	-0.5	53.9
	A-	2018	10,944	31.0	28.6	-0.3	52.1
KLA Corporation	BBB+						
	BBB+	2020	5,254	42.6	32.9	0.8	13.4
	BBB+	2019	4,005	40.9	30.2	1.3	13.5
	BBB+	2018	3,385	41.2	36.3	-0.2	13.5
NXP Semiconductors N.V.	BBB-						
	BBB-	2020	7,559	33.5	23.3	2.3	6.9
	BBB-	2019	7,930	35.8	29.1	2.3	11.5
	BBB-	2018	7,973	34.4	45.9	1.1	25.1
STMicroelectronics N.V.	BBB						
	BBB	2019	8,537	21.6	20.6	-0.3	152.2
	BBB	2018	8,191	22.9	22.0	-0.2	178.2
Nokia Corporation	BBB-						
	BBB-	2020	21,870	11.8	11.0	-0.9	237.3
	BBB-	2019	23,344	10.6	9.0	-0.5	-74.8
	BBB-	2018	22,580	11.9	9.8	-1.0	14.4
Telefonaktiebolaget LM Ericsson	BBB-						
	BBB-	2020	22,194	15.1	13.3	-1.2	22.1
	BBB-	2019	21,450	11.0	10.3	-1.3	22.2
	BBB-	2018	20,548	8.4	2.6	-4.9	8.1

Source: Fitch Ratings, Fitch Solutions

Fitch Adjusted Financials

Fitch Adjustments and Reconciliation Table for ASML Holding N.V.

(EURm)	Notes and Formulas	Reported Values	Sum of Adjustments	Other Adjustments	Adjusted Values
31 December 2020					
Income Statement Summary					
Revenue		13,979			13,979
Operating EBITDAR		4,543	-1	-1	4,542
Operating EBITDAR After Associates and Minorities	(a)	4,671	-1	-1	4,670
Operating Lease Expense	(b)	0	80	80	80
Operating EBITDA	(c)	4,543	-81	-81	4,462
Operating EBITDA After Associates and Minorities	(d) = (a-b)	4,671	-81	-81	4,590
Operating EBIT	(e)	4,052	-4	-4	4,048
Debt and Cash Summary					
Total Debt with Equity Credit	(f)	4,678			4,678
Lease-Equivalent Debt	(g)	0	640	640	640
Other Off-Balance-Sheet Debt	(h)	0			0
Total Adjusted Debt with Equity Credit	(i) = (f+g+h)	4,678	640	640	5,318
Readily Available Cash and Equivalents	(j)	7,351			7,351
Not Readily Available Cash and Equivalents		0			0
Cash Flow Summary					
Operating EBITDA After Associates and Minorities	(d) = (a-b)	4,671	-81	-81	4,590
Preferred Dividends (Paid)	(k)	0			0
Interest Received	(l)	32			32
Interest (Paid)	(m)	-64			-64
Cash Tax (Paid)		-650			-650
Other Items Before FFO		107	4	4	111
Funds from Operations (FFO)	(n)	4,096	-77	-77	4,019
Change in Working Capital (Fitch-Defined)		532			532
Cash Flow from Operations (CFO)	(o)	4,628	-77	-77	4,551
Non-Operating/Nonrecurring Cash Flow		0			0
Capital (Expenditures)	(p)	-1,001			-1,001
Common Dividends (Paid)		-1,066			-1,066
Free Cash Flow (FCF)		2,561	-77	-77	2,484
Gross Leverage (x)					
Total Adjusted Debt/Operating EBITDAR ^a	(i/a)	1.0			1.1
FFO Adjusted Leverage	(i)/(n-m-l-k+b)	1.1			1.3
FFO Leverage	(i-g)/(n-m-l-k)	1.1			1.2
Total Debt with Equity Credit/Operating EBITDA ^a	(i-g)/d	1.0			1.0
(CFO-Capex)/Total Debt with Equity Credit (%)	(o+p)/(i-g)	77.5%			75.9%
Net Leverage (x)					
Total Adjusted Net Debt/Operating EBITDAR ^a	(i-j)/a	(0.6)			(0.4)
FFO Adjusted Net Leverage	(i-j)/(n-m-l-k+b)	(0.6)			(0.5)
FFO Net Leverage	(i-g-j)/(n-m-l-k)	(0.6)			(0.7)
Total Net Debt with Equity Credit/Operating EBITDA ^a	(i-g-j)/d	(0.6)			(0.6)
(CFO-Capex)/Total Net Debt with Equity Credit (%)	(o+p)/(i-g-j)	-135.7%			-132.8%
Coverage (x)					
Operating EBITDA/(Interest Paid + Lease Expense) ^a	a/(-m+b)	73.0			32.4
Operating EBITDA/Interest Paid ^a	d/(-m)	73.0			71.7
FFO Fixed-Charge Coverage	(n-l-m-k+b)/(-m-k+b)	64.5			28.7
FFO Interest Coverage	(n-l-m-k)/(-m-k)	64.5			63.3

^aEBITDA/R after dividends to associates and minorities.

Source: Fitch Ratings, Fitch Solutions, ASML Holding N.V.

Reconciliation of Key Financial Metrics for ASML

(EURm)			FY20
Debt & Cash Summary			
Long-term debt	As reported		4,663
Short-term debt	As reported		15
Total debt	Calculated		4,678
Equity credit			0
Total debt with equity credit	Calculated		4,678
Total off-balance sheet debt (8 x long-term lease expense)	Calculated	(f x 8)	642
Total lease-adjusted debt	Calculated		5,321
Cash & Investments			
Cash & equivalents	As reported		6,049
Short-term investments	As reported		1,302
Readily available cash	Calculated		-7,352
Net debt with equity credit	Calculated	(a)	-2,673
Net lease-adjusted debt	Calculated	(b)	-2,031
Cash Flow Summary			
Revenue	As reported		13,979
Operating Income	As reported		4,052
Plus: depreciation & amortisation	As reported		491
Less: right-of-use operating lease depreciation	As reported		-66
Less: right-of-use finance lease depreciation	As reported		-11
Less: interest on lease liabilities	Fitch assumption		-4
Operating EBITDA (Fitch-calculated)	Calculated		4,462
Operating EBITDA (Fitch-calculated)	As above		4,462
Gross interest paid	As reported	(c)	-64
Interest received	Fitch assumption		32
Net interest paid	Calculated	(d)	-32
Cash tax paid	As reported		-650
Dividends to minorities net of dividends received	As reported		128
Other items before FFO	calculated		143
FFO	As below	(e)	4,019
Cash provided by operating activities	As reported		4,628
Plus: non-operating/non-recurring cash flow	Fitch assumption		0
Less: right-of-use operating lease depreciation	As reported		-66
Less: right-of-use finance lease depreciation	As reported		-11
Cash flow from operations (Fitch-calculated)	Calculated	(h)	4,551
Less/offset: Change in working capital	As reported		-532
FFO	Calculated		4,019
Right-of-use operating lease depreciation	As reported		66
Right-of-use finance lease depreciation	As reported		11
Interest on lease liabilities	Fitch assumption		4
Long-term lease expense	Fitch assumption	(f)	80
Capex	As reported	(g)	-1,001
Financial Ratio Summary			
FFO interest coverage (x)			
(FFO + net interest paid) / gross interest paid		(e - d) / (-c)	63x
Net debt / EBITDA (x)			-0.6x
FFO net leverage (x)			
Net debt / (FFO + net interest paid)		a / (e-d)	-0.7x
(CFO - capex) / net debt (%)		(h - g) / a	-133%

Source: Fitch Ratings, Fitch Solutions, ASML Holding N.V.

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