



## RATING ACTION COMMENTARY

# Fitch Upgrades ASML Holding N.V. to 'A'; Outlook Stable

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Fitch Ratings - Milan - 19 Apr 2022: Fitch Ratings has upgraded ASML Holding N.V.'s Long-Term Issuer Default Rating (IDR) and senior unsecured rating to 'A' from 'A-'. The Outlook on the IDR is Stable.

The upgrade reflects the company's tangibly stronger earnings and cash flow profile, ongoing improvement in market leadership, improved visibility and strong industry fundamentals.

Fitch believes previously identified constraints on the 'A' rating have reduced. Cyclical volatility in end-markets, technology roadmaps that drive high R&D and limited diversification remain, but in the context of more limited end-market volatility; the semiconductor industry is maturing but continues to grow strongly.

ASML has shown the ability to deal with technology migrations while maintaining its unique position as the market leader in leading edge and delivering strong margin and cash flow expansion. Fitch's base case forecasts an average pre-dividend free cash flow (FCF) of EUR8.5 billion over 2021-2025. This compares with an average of EUR2.2 billion (2017-2021) forecast at the time of the last upgrade in March 2018.

## KEY RATING DRIVERS

**Shift in Operating and Cash Flow Profile:** Fitch believes ASML's operating profile has shifted to a higher base. Sales of extreme ultraviolet (EUV) tools, which are ASML's (and the industry's) most advanced lithography tool and demand for lithography equipment are expected to outweigh production until 2024. We expect operating margins to rise steadily from 36% in 2022 to above 38% over the next four years, reflecting accelerating EUV sales and expectations of increased demand in more mature nodes (deep ultraviolet; DUV).

**Margin Visibility:** As EUV is no longer causing a drag on gross margin, we believe margin visibility has improved. ASML's technology roadmap will continue to evolve, but we expect it to be iterative

rather than the ground-breaking shift seen as leading-edge tools moved to EUV from DUV (light sources).

**Model Frames Profile:** ASML's market simulation model in 2021 guided to potential 2025 revenue of EUR24 billion to EUR30 billion, up by 60% from EUR15 billion to EUR24 billion predicted in 2018. At sales of EUR27 billion, the mid-point of the current range, we estimate the company would deliver an operating margin of 38%; 5pp higher than previously guided. Mid-range operating profit has risen to EUR10.3 billion compared with EUR6.4 billion in the 2018 guidance.

**Supportive Industry Outlook:** Trends driving the semiconductor industry include Cloud services, 5G, AI, autonomous driving, Internet of Things (IoT), augmented and virtual reality. The applications that use semiconductors are far wider than 10 years ago when PCs and communications were dominant end-markets. Industry revenues of around USD570 billion in 2021 are set to approach USD1 trillion by 2030, a CAGR of over 7%. Wafer fab equipment (WFE) spend is expected to continue its long-term capital intensity of around 22%, with lithography expected to grow faster than total WFE. These trends are driven by ASML's 100% share of EUV and growing installed basement management business.

**Geopolitics, Technology Sovereignty:** China accounted for around EUR2.7 billion of ASML's 2021 net sales, and we expect this to continue growing quickly. EUV is on China's restricted list, but this has not had a material impact on sales in the country, with only one shipment affected. Restrictions that extended to DUV tools would have a far greater impact but we do not expect them.

Geopolitical concerns around Taiwan are a risk factor. Semiconductor feature shrink and bit growth drive lithography demand and will continue to do so regardless of customer location. A push for technology sovereignty, including government funding by large western economies provides potential upside for domestic fab construction and WFE spending. Fitch has not factored this upside into the forecasts.

**Customer Concentration:** Customer concentration is a constraining factor. ASML's three largest customers are Taiwan Semiconductor Manufacturing Company Limited, Intel Corporation and Samsung Electronics Co., Ltd. Fitch estimates that combined annual sales to these customers is above 80%. Each have strong financial profiles, are industry founders and arguably the most important in their chosen fields. Long-term lithography demand is unlikely to be damaged by the failure of one individual customer as bit growth will inevitably drive investment elsewhere in the industry.

**Outsourced Business Model, Supply Chain Risks:** ASML operates a highly advanced outsourced business model with around 90% components sourced from outside suppliers. This requires a sophisticated approach to supply chain management and a collaborative approach to R&D. Strategic investments include ASML's 24.9% stake in Carl Zeiss SMT, the company's exclusive provider of optical lenses/mirrors, lithography's most critical input, while tuck-in acquisitions have been made to ensure component development keeps pace with ASML's roadmap.

We believe a significant share of components are of a standard nature and that management has a highly active and analytical approach to managing its supply chain.

**Changes to Navigator Factors:** Changes to ASML's Navigator factors/sub-factors include a change in the Profitability factor to 'a' from 'a-', reflecting the strength of projected earnings and cash flow margins and an increase in the factor weighting to high. The change incorporates the volatility of profitability sub-factor moving to 'bbb', in line with the industry average. This reflects Fitch's view that ASML's volatility is no more acute than its sector peers. We continue to view ASML's conservative financial policy a strength, but its rating is driven (operationally) by its leading market position, and (financially) by the strength of its earnings and cash flow.

## **DERIVATION SUMMARY**

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 semiconductor equipment and process control peers, such as KLA Corporation (A-/Stable), Applied Materials Inc. and LAM Research Corporation (neither of whom are rated but we believe have strong operating profiles). Wider comparisons from the semiconductor manufacturing sector include Intel (A+/Stable) and Samsung (AA-/Stable), two of ASML's largest customers. These peers are far larger and in Samsung's case more diversified, but ASML's cash flow profile compares well with both and revenue volatility is no more pronounced.

## **KEY ASSUMPTIONS**

Revenue growing at 20% in 2022, slowing to 11% in 2023 and high single digit percentage growth thereafter.

EBITDA margin remaining around 38% in 2022 up to 38.8% by 2023 as EUV system margin and overall gross margin improve.

Capex as a percentage of revenues of 5.8% in 2022, decreasing to 3.7% only in 2025.

Bi-annual dividends increasing to around EUR2.2 billion in 2022.

Share buy-backs of EUR5 billion in 2022, thereafter EUR5.8 billion per year.

## **RATING SENSITIVITIES**

**Factors that could, individually or collectively, lead to positive rating action/upgrade:**

- A further tangible shift (upwards) in ASML's operating and cash flow profile, driven by the company's ongoing and increasingly embedded position in the industry's ecosystem and its customers' technology roadmap.

- A continued commitment to a conservative financial policy - currently embedded in the company's commitment to a minimum gross cash position of EUR2 billion-EUR2.5billion.
- Continued market share leadership in both leading-edge and non-leading-edge lithography. As EUV matures and becomes a higher proportion of industry revenues Fitch would expect its overall market share of lithography to grow.

**Factors that could, individually or collectively, lead to negative rating action/downgrade:**

- Operating margins materially below 15% in downturns and below 30% at the peak of upcycles. However, Fitch recognises that operating losses may be incurred during extreme cyclical contractions
- Major loss of market share, which would signal a rapid shift in market position and likely reflect a sustained negative trend
- Liquidity (defined as gross cash plus undrawn, committed revolving credit facilities 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
- Funds from operations net leverage remaining above 1.0x on a sustained basis

**BEST/WORST CASE RATING SCENARIO**

International scale credit ratings of Non-Financial Corporate issuers have a best-case rating upgrade scenario (defined as the 99th percentile of rating transitions, measured in a positive direction) of three notches over a three-year rating horizon; and a worst-case rating downgrade scenario (defined as the 99th percentile of rating transitions, measured in a negative direction) of four notches over three years. The complete span of best- and worst-case scenario credit ratings for all rating categories ranges from 'AAA' to 'D'. Best- and worst-case scenario credit ratings are based on historical performance. For more information about the methodology used to determine sector-specific best- and worst-case scenario credit ratings, visit

<https://www.fitchratings.com/site/re/10111579>.

**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 EUR2.0 billion to EUR2.5 billion. As of end-2021, ASML held EUR6,952 million of cash and equivalents and EUR639 million short term investments. ASML also has access to an undrawn revolving credit facility of EUR700 million maturing 2026.

**ISSUER PROFILE**

ASML is a provider of integrated circuit lithography systems used in the manufacture of semiconductors. Over the past 30 years, the industry has consolidated to three players and ASML has emerged as market leader in DUV sales and as a monopoly on EUV technology. EUV is vital to driving future shrink (downscaling) in the manufacture of semiconductors. The fruition of

investments in next generation of lithography machines (EUV) will support ASML's market share and position it for long-term growth.

## REFERENCES FOR SUBSTANTIALLY MATERIAL SOURCE CITED AS KEY DRIVER OF RATING

The principal sources of information used in the analysis are described in the Applicable Criteria.

## 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](http://www.fitchratings.com/esg)

## RATING ACTIONS

ENTITY / DEBT ↕	RATING ↕			PRIOR ↕
ASML Holding N.V.	LT IDR	A Rating Outlook Stable	Upgrade	A- Rating Outlook Stable
senior unsecured	LT	A	Upgrade	A-

[VIEW ADDITIONAL RATING DETAILS](#)

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## APPLICABLE CRITERIA

[Corporates Recovery Ratings and Instrument Ratings Criteria \(pub. 09 Apr 2021\) \(including rating assumption sensitivity\)](#)

[Corporate Rating Criteria \(pub. 15 Oct 2021\) \(including rating assumption sensitivity\)](#)

[Sector Navigators - Addendum to the Corporate Rating Criteria \(pub. 15 Oct 2021\)](#)

## APPLICABLE MODELS

Numbers in parentheses accompanying applicable model(s) contain hyperlinks to criteria providing description of model(s).

[Corporate Monitoring & Forecasting Model \(COMFORT Model\), v8.0.2 \(1\)](#)

## ADDITIONAL DISCLOSURES

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ASML Holding N.V.

EU Issued, UK Endorsed

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