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## EQUITY RESEARCH REPORT ASML HOLDING N.V. – POWERING THE NEXT ERA OF MICROCHIPS

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#### "ASML HOLDING N.V."

## **COMPANY REPORT**



**Abstract** 

This report outlines an individual's input within a group equity research assignment on ASML Holding N.V., carried out as part of the Master in Finance program at Nova SBE. It examines the company's core strengths, financial standing, sector dynamics, and future growth outlook. The content spans a company profile, regional market reach, shareholder composition, key financial metrics, projections for EUV segment revenue, and scenario modeling. Valuation approaches include both DCF and APV to determine intrinsic value. The findings support a BUY stance, setting a target price of €739.41, underscoring ASML's leadership in advanced lithography and its robust positioning in the everevolving semiconductor landscape.

Semiconductors; Artificial Intelligence; Cloud Computing; Integrated Circuits; Lithography Equipment; EUV Lithography; DUV Lithography

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### "ASML HOLDING N.V."

## **COMPANY REPORT**



Tecnologia (UID/ECO/00124/2013, UID/ECO/00124/2019 and Social Sciences DataLab, Project 22209), POR Lisboa (LISBOA-01-0145-FEDER-007722 and Social Sciences DataLab, Project 22209) and POR Norte (Social Sciences DataLab, Project 22209).

This report is part of the ASML research report (annexed), developed by Duarte Quintas (59664) and Adapa Rohan (59140) and should be read has an integral part of it.



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## Introduction

This individual report forms part of a collaborative equity research project on ASML Holding N.V., conducted within the Master in Management program at Nova School of Business and Economics. Developed in partnership with Adapa Rohan, the report evaluates ASML's intrinsic value and delivers a final recommendation of **BUY**, with a target price of €739.41 for FY25, representing a 12% premium over the share price as of May 21, 2025. The project combines such things as company fundamentals, industry positioning, segment forecasts, and valuation methodologies, such as DCF, APV, EVA, FTE, and market multiples, supplemented by scenario and sensitivity analyses to support the investment thesis.

My individual contributions are the Company Overview, Geographics, Ownership Structure, Financial Snapshot, and shareholder structure. I led the Industry Analysis and Market Overview, identifying structural growth drivers and sectoral trends. From a financial standpoint, I conducted the liquidity, solvency, activity, and profitability ratio analysis, and reformulated the financial statements to isolate value-generating components. I developed the EUV revenue forecast, evaluated cost structure and gross margins, and articulated the long-term value creation levers. I also constructed and interpreted the DCF and APV valuations, and executed the Scenario Analysis. Adapa Rohan contributed to the analysis of the different Business Lines, Board of Management, SWOT Analysis, Risk and Challenges, Competitive Landscape, Stock Performance, Revenue Forecast on DUV, Metrology & Inspection, and Net Services segments, as well as the Net Working Capital, CAPEX, Core Invested Capital and Free Cash Flow analysis, and additional valuation aspects. This report highlights the scope and depth of my individual analytical role within the broader research project



# **Company Overview**

ASML is a Netherlands-based company that operates from its headquarters in Veldhoven, where it develops systems and software that assist semiconductor chip manufacturers in their operations. On April 1, 1984, ASML was founded as ASM Lithography through a joint venture between Philips and ASM International, with a clear purpose: to commercialize the PAS 2000 wafer stepper, which had been developed at Philips (Van Duijn, 2024).

ASML stands as a global semiconductor industry leader through its innovative approach. The company provides chipmakers with hardware components along with software solutions and service capabilities needed for high-volume silicon pattern manufacturing through lithography. ASML offers a wide range of products that match their customers' technology plans and needs, so that they can support them with lithography solutions for both advanced and more traditional chipmaking needs. ASML's customer base consists primarily of the world's leading semiconductor manufacturers, including companies such as Intel, TSMC, and Samsung, using ASML's advanced lithography systems in their specialized fabrication facilities, to produce integrated circuits. These microchips manufactured with ASML's technology serve as critical components in a wide range of electronic devices, including smartphones, laptops, data centers, and emerging applications such as autonomous vehicles and artificial intelligence systems.

ASML offers four main categories of products and services: EUV Lithography Systems; DUV Lithography Systems; Metrology and Inspection Systems; and Net Service and Field Options. In addition to these, the company also provides Refurbished Systems within the DUV segment, while engages in computational lithography, and delivers comprehensive customer support services (ASML Products & Services | Supplying the Semiconductor Industry, n...). In addition to these, the company also provides Refurbished Systems within the DUV segment, while engages in computational lithography, and delivers comprehensive customer support services. (ASML Products & Services | Supplying the Semiconductor Industry, n.dd.)

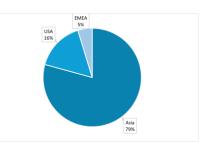


The world has no other manufacturer than ASML in 2025, which produces extreme ultraviolet (EUV) lithography machines that make it possible to produce smaller and faster microchips through shorter wavelength light use.

## Geographics

ASML distributes its products through a direct sales model, maintaining a global presence that ensures proximity to their key customers. The company's network of account managers, field and application engineers, and technical support teams is strategically positioned across Asia, the United States, and the EMEA region (ASML 2024 Annual Report, 2024, p. 28) while their customers expect them to have the right means in order to their needs and expectations.

ASML generates its revenue from different geographic regions due to the global nature of the semiconductor industry. The company obtained most of its revenue from Asia during the period 2020 to 2024, with Taiwan, South Korea and China accounting for majority of the revenues. Taiwan led with the highest contribution of 31.23%, followed by South Korea with 27.92% and China with 21.50% during this period. The three countries generated more than 80% of ASML's revenue demonstrating their importance as essential semiconductor manufacturing centers and ASML's primary customer base.



In 2024, China emerged as ASML's largest single market, generating €10.2 billion in revenue — a remarkable 40.59% year-over-year growth. South Korea remained the second-largest market, with €6.4 billion in revenue, followed by the United States (€4.5 billion), Taiwan (€4.4 billion), and EMEA (€1.3 billion). While the U.S. market showed a recovery from previous declines, Taiwan and EMEA experienced modest contractions in 2024.

From a historical growth perspective, some regions demonstrated significant volatility. For instance, the Netherlands saw sporadic spikes due to specific one-off shipments, while Rest of Asia remained marginal throughout the period. Despite this, the global diversification of ASML's customer base — with presence across North America, Europe, and Asia — remains a strategic advantage, even as the bulk of demand continues to originate from a relatively narrow group of countries.

#### **Ownership Structure**

ASML Holding N.V. is publicly listed on both Euronext Amsterdam (ticker:

Name	Shares	% of class
Capital Research and Management  Company	40,615,837	10.33%
BlackRock Inc.	31,259,169	7.95%



ASML.AS) and the NASDAQ (ticker: ASML), with a market capitalization of approximately €259 billion as of the most recent valuation. The company has 393,283,720 shares outstanding, of which a significant portion is held by institutional investors, reflecting a concentrated and stable shareholder base. Among the largest shareholders are Capital Research and Management Company, holding over 40.6 million shares (10.33% of the total), and BlackRock Inc., with a stake of approximately 7.95%. Collectively, these two institutions account for more than 18% of ASML's equity. In contrast, the current members of ASML's Board of Management and Supervisory Board collectively hold a negligible portion of the company's shares—just over 43,000 shares, or roughly 0.01% of the total. This ownership structure, characterized by long-term institutional holdings and limited insider ownership, typically signals lower share turnover, contributing to enhanced share price stability and reduced short-term volatility. (ASML 2024 Annual Report, 2024, p. 110)

## **Financial Snapshot 2024**

The revenue at the end of year 2024 was around \$28.3 billion with just a modest growth of 2.56% over the previous year (ASML 2024 Annual Report, 2024). The increase in revenue was primarily driven by higher net service and field option sales as a result of a growing customer base. NXE EUV system sales volumes were lower due to a shift in the market dynamics, driven by AI. The gross profit increased by just 2.52% from 2023 to \$14.5 billion, the slight increase is due to net service sales. The gross margin remained stable at about 51.3%. ASML has sold 380 units of new lithography systems and 38 units of used lithography systems. ASML intends to declare a total dividend for the year 2024 of €6.40 per ordinary share, which is a 4.9% increase compared to 2023. The increase in R&D costs at \$4.3 billion, an increase of 8.1 % over the previous year, shows that ASML is investing in the new EUV systems and also the next generation lithography systems to increase productivity and make it cost-effective for the customers. (ASML 2024)

# **Industry Analysis**

## **Market Overview**

The semiconductor industry will experience strong growth throughout 2025 because of artificial intelligence (AI) and high-performance computing, together with electric vehicles (EVs) and data center expansion, create increasing demand. The industry demonstrates strong progress toward its \$1 trillion chip sales target





for 2030, which indicates a 7.5% growth rate from 2025 to 2030 to achieve this key goal. ("2025 Global Semiconductor Industry Outlook," n.d.)

## The Key Growth Drivers are

Generative AI and Cloud Computing serve as primary growth drivers which lead to major investments in advanced chip development along with their production infrastructure. The implementation of AI technology creates higher market needs for innovative memory solutions and high-speed GPUs and drives increased data center investments during 2025.

Automotive and IoT - The increasing use of semiconductors in EVs, autonomous vehicles and IoT devices creates a broader market opportunity that demands more sophisticated energy-efficient and compact semiconductor chips.

Advanced Semiconductor Nodes - The industry is rapidly transitioning to 3nm and 2nm process technologies, enabled by innovations such as extreme ultraviolet (EUV) lithography. The market demand for advanced manufacturing equipment is driving companies' growth because of this trend.

## **Regional Dynamics**

Asia-Pacific remains the global manufacturing hub, with leading foundries (TSMC, Samsung) and significant investments in new fabrication facilities.

The U.S. and EU have introduced policies such as the CHIPS Act and the EU Chips Act to promote domestic production alongside supply chain resilience and advanced equipment use in both North America and Europe.

China maintains its large-scale semiconductor capacity development despite export regulations, which in turn drive worldwide equipment requirements.

#### Outlook

The industry benefits from government-backed initiatives that expand production capabilities while also achieving supply chain localization. The industry faces challenges from supply chain vulnerabilities and geopolitical risks, and must develop its workforce to maintain growth and innovation. The semiconductor industry in 2025 demonstrates strong expansion potential combined with technological developments and new difficulties that it needs to address. The semiconductor sector will benefit from these trends, but needs to adjust to changing competitive dynamics and regulatory and operational demands.

# Valuation



## **Financial Analysis**

## **Liquidity Ratios**

ASML			
Liquidity Ratios	2020	2022	2024
Current Ratio	2.41	1.28	1.53
Quick Ratio	1.72	0.88	0.99
Cash Ratio	0.92	0.40	0.64

Current Ratio - A company's capability to fulfill short-term debts is determined by its current ratio. The current ratio of ASML in 2024 stands at 1.53, while it exceeded 2 in 2020 before maintaining stability at approximately 1.5 in subsequent years, thus indicating that current assets outweigh liabilities and that the company can satisfy its short-term obligations.

Quick Ratio -The quick ratio assesses a business's capacity to fulfill its short-term responsibilities by using its most liquid assets. The quick ratio is more conservative and only takes into account liquid assets like cash, marketable securities, and receivables and excludes inventory as it generally takes time to be converted into cash. The quick ratio of ASML equals 0.99, which indicates the company lacks enough liquid assets to cover its current liabilities. It also followed the same trend as the current ratio and was above one until 2021, then dropped below from 2022. But for a capital-intensive company like ASML, which has significant inventory due to the complexity of its products, this does not indicate any financial distress.

Cash Ratio - A company's ability to settle its short-term obligations with cash and near-cash resources is determined by the Cash Ratio. The Cash Ratio of ASML stands at 0.50. Demonstrating that current liabilities exceed the cash and cash equivalents and marketable securities, and the company lacks enough cash to satisfy its short-term debt obligations. It is typical for manufacturing firms to have lower cash ratios due to capital deployment in inventory and receivables.

#### **Activity Ratios**

ASML			
Activity Ratios	2020	2022	2024
Average Holding Period	232	251	289
Average Payable Period	70	89	93
Average Collection Period	34	92	58
Cash Conversion Cuole	196	253	254

Average Holding Period - The inventory liquidity is indicated by the average holding period which shows the time inventory stays on hand until sale. The average holding period at ASML reaches 289 days which extends far beyond the typical duration of manufacturing companies. The extensive assembly and testing process alongside product complexity and customization during production cycles leads to this long holding period for its advanced lithography systems. Capital equipment companies within the semiconductor sector maintain typical long holding periods because their products are expensive, low-volume, and made according to customer specifications.

Average Payable Period - Average payable period indicates the duration suppliers must wait for payment from the company. ASML has an average payable period of 93, indicating that its ability to negotiate favorable payment terms and efficiently



manage working capital, as it can retain cash for longer.

Average Collection Period - The average collection period tells us how many days, on average, it takes ASML to collect payment from its customers after making a sale, i.e., how quickly it turns sales into cash. ASML has an average collection period of 58, so it takes about 7-8 weeks to receive cash after delivering its products and services. This is quite efficient in the industry they are in and can impact their operations positively as they can reinvest cash into operations, R&D, and other initiatives.

Cash Conversion Cycle – The Cash Conversion Cycle (CCC) is a key financial metric used to assess a company's operational efficiency in managing its working capital. It measures the number of days required for a company to convert its investments in inventory and other resources into cash flows from sales. Specifically, the CCC is calculated by adding the Average Holding Period (time inventory is held) and the Average Collection Period (time to collect receivables), and then subtracting the Average Payable Period (time the company takes to pay its suppliers). In ASML's case, although each component has been examined individually, the CCC offers a more integrated view of how these elements interact.

So, over the last five years, ASML's CCC has ranged from 186 to 254 days, with a notable growing trend started in 2022 and going until the most recent year, 2024. This increase is mainly due to a longer Average Holding Period, which reflects extended inventory cycles. At the same time, the Average Payable Period has also increased, suggesting that ASML is negotiating longer payment terms with suppliers, improving short-term cash retention, as meanwhile, the Average Collection Period has remained relatively stable, indicating consistent efficiency in receivables management. Although a higher CCC implies a longer working capital cycle, it remains relatively typical for capital-intensive industries like semiconductor equipment manufacturing, where long production and long delivery timelines are the norm.

## **Solvency Ratios**

When evaluating ASML's financial health, it is important to consider not only its liquidity but also its capital structure and overall solvency, especially in relation to its capacity to service long-term obligations.

Starting with the Debt-to-Equity (D/E) ratio, ASML has consistently maintained conservative leverage levels, with the ratio remaining at or below 0.5 throughout the 2020–2024 period. Firstly, this reflects a strong equity cushion relative to its debt and highlights the company's preference for equity-financed growth. Similarly,



the Debt-to-EBITDA ratio, which measures how many years it would take ASML to repay its debt using operating earnings, has also remained quite low—hovering around 0.5 in the most recent years—indicating that the company generates enough earnings to comfortably meet its financial obligations without overreliance on external funding.

Moreover, the Solvency Ratio, which compares equity to total liabilities, reinforces ASML's strong balance sheet position. While this ratio declined from 1.0 in 2020 to 0.6 in 2024, suggesting a gradual increase in leverage, it remains within a healthy range. At the same time, the Financial Autonomy Ratio (equity over total assets) has slightly improved to 0.4 in 2024, reflecting that a significant share of the company's assets continues to be funded through equity rather than debt—another indicator of financial resilience.

Perhaps most telling is the trend in the Interest Coverage Ratio (EBIT/Interest Expense), which has fallen sharply from over 100 in the early years to negative values in 2023 and 2024. This drop is largely attributable to fluctuations in the "Interest and other, net" item (Interest and other, net consists mainly of interest income and interest expenses), recorded in the Consolidated Statement of Operations, mainly due to a significant increase in the Interest Income during this period, as detailed in Note 16 (ASML 2024 Annual Report, 2024, p. 357). Nevertheless, ASML's overall debt burden remains modest, and the company continues to generate strong and predictable operating earnings.

Taken together, these ratios suggest that ASML is in a strong financial position, with prudent leverage, robust earnings capacity, and a healthy balance between equity and debt financing. Although some indicators, such as the interest coverage ratio, signal volatility in recent years, mainly due to an increase of Interest Income, this does not materially undermine the company's ability to meet its obligations. Concluding and looking ahead, ASML is very well positioned to fund its long-term investments through a combination of retained earnings and manageable levels of long-term debt, maintaining flexibility as it continues to scale operations and support innovation.

## **Profitability Ratios**

To evaluate ASML's profitability over the 2020–2024 period, three key metrics are particularly insightful: Gross Margin, EBIT Margin, and Net Margin. Together, these ratios provide a comprehensive view of the company's efficiency in converting revenue into profit across different levels of the income statement.

Starting with the Gross Margin, ASML has consistently demonstrated strong cost



efficiency, maintaining levels around 50–52% throughout the period. In 2024, the gross margin stood at 51.28%, virtually unchanged from the 51.29% reported in 2023 ("ASML 2024 Annual Report" 2024, 55). This consistency highlights the company's robust pricing power and cost discipline, largely supported by the high value of its lithography systems and the growing contribution from services, which tend to carry higher margins.

Turning to the EBIT Margin, ASML showed a peak of 36.27% in 2021, during a period of exceptional demand and operational performance. Although this margin slightly declined to 31.92% by 2024, the change is largely attributable to ASML's continued investment in research and development, particularly in support of next-generation technologies like High-NA EUV and the NXT:870B platform ("ASML 2024 Annual Report" 2024, 296). In fact, R&D expenses rose by approximately 8.1% year-over-year, totaling €4.3 billion in 2024—demonstrating their intention to have the target of €4.0 billion R&D expenses by 2025.("ASML 2024 Annual Report" 2024, 55)

Finally, the Net Margin—which offers a clear view of how much profit the company retains from each euro of revenue—stood at 26.79% in 2024, slightly lower than the 28.44% achieved in the previous year. While this decline can be attributed to higher R&D and SG&A expenditures, it is worth noting that such a margin remains well above industry averages, reinforcing the strength and efficiency of ASML's business model. ("Semiconductors Industry Profitability" 2025)

In summary, despite minor fluctuations in margin levels over time, ASML's profitability profile remains remarkably strong. The company's ability to sustain high margins while actively investing in future technologies underlines its strategic focus and operational excellence. This solid financial performance not only reflects its market leadership but also reinforces its capacity to deliver long-term value, even amid an evolving and highly competitive semiconductor landscape.

## **Financial Statements Reformulation**

To comprehensively understand ASML's business segments and their impacts on the company, we reformulated the company's financial statements, including the Consolidated Statement of Operations, Consolidated Balance Sheet, and Consolidated Cash Flow Statement.

First of all, the Reformulated Income Statement is based on a distinction between



Core, Non-Core, and financial activities. This restructuring allows for a more transparent separation of value-generating operations from activities that are peripheral or purely financial in nature. The objective of this reformulation is to isolate the Core and Recurrent Business, which reflects the company's operational engine, which includes revenues from EUV segment, DUV segment, Metrology & Inspection, and Net Service and field options related activities, from non-core elements, such as profits from equity method investments, one-off items, so basically non recurrent business. Additionally, Financial items, includes interest income, and interest expenses, which then give us the total Net Income, by summing the Core, Non-Core and Financial items, which should match the Net Income from the Consolidated Statement of Operations. This classification enhances analytical clarity and facilitates more meaningful comparisons over time and across peers.

By reformulating the Balance Sheet, we distinguish between Core Invested Capital, so comprises the Net Working Capital, which means the difference between Current Assets and Current Liabilities, PP&E, and intangibles directly linked to operations, Goodwill, Right Use of Assets, and Non-Core Invested Capital, which includes items like financial participations, for example. This division allows us to isolate the capital that is truly productive from that which is not directly tied to operating value creation.

Likewise, the Cash Flow Map has been reconstructed to reflect the operational reality of ASML's business. It begins with Core EBIT and Recurrent NOPAT and follows through to the derivation of Core Unlevered Free Cash Flow, for example summing the Depreciation and Amortization, as well as Impairments, being that they are not an outflow of money. From there, Non-Core and Financial cash flows are layered in, providing a complete picture of total free cash flow available to the firm's stakeholders. This structure serves as the analytical foundation for all forecasting and valuation efforts in the subsequent sections of this report, where we project key drivers such as revenues, working capital, capital expenditures, and Core Invested Capital.

### **Revenue Forecast**

In order to project ASML's revenues in the future, we organized our analysis by ASML's main segments: EUV, DUV, Metrology and Inspection, and Net Service and Field Options. We projected each of these separately based on its individual growth pattern, according to the most recent annual report issued by ASML as well. We divided our forecast into two major phases: the projection period, from



2025 to 2030, and the steady-state period, from 2031 to 2035. In the projection period, growth assumptions change every year to account for product maturity, expected demand, and segment-specific trends as well as market size. In the steady-state period, growth rates stabilize, reflecting a more established and stable state of ASML's industry. This segmented and time-based method enables us to better account for each component of ASML's portfolio as it is likely to change over time.

#### **EUV**

In order to analyze and predict ASML's EUV segment revenue, one needs to understand the segment's past performance and drivers of future growth first. In recent years, ASML's EUV segment has grown to be more significant, attaining €8.3 billion in revenue in FY2024 ("ASML 2024 Annual Report" 2024). Though it was down by approximately 9% year on year, it was largely due to system delivery schedules, however this was a period when ASML installed the industry's first High NA extreme ultraviolet (EUV) lithography system (ASML 2024 Annual Report, 2024, p. 7).

Looking to 2025 and beyond, the EUV segment is projected to bounce back strongly. For FY2025, ASML is projecting significant growth in sales driven by delivering about 5 EXE (High NA EUV) systems, and about 45 NXE (0.33 NA EUV) systems. Combined these volumes, alongside average unit prices of about €300–350 million for EXE and €180 million for NXE, support the strong projected revenues of €10.4 billion in 2025 alone. As it is mentioned in the 2024 Annual Report "EUV technology in particular is playing an increasingly significant role in driving this growth" ("ASML 2024 Annual Report" 2024, 54) this growth targets an implied year-over-year 25% growth, and is based on the acceleration in demand for leading-edge Logic and Memory chip manufacturing that EUV technology provides. ("ASML 2024 Annual Report" 2024, 38)

Since Nikon and Canon, the other two players in the market, do not produce EUV equipment, ASML holds a market share of 100%, which, we feel, shall continue to be so as technologies that pose substitutes to EUV, like Nanoimprint Lithography (NIL), remain immature and are likely to never reach similar performances, so the EUV line of business is anticipated to grow steadily at double-digit growth levels from 2026 to 2030, fueled by successive transitions of technology, expanding customer adoption, and scaling up of High NA EUV to mass production levels. Specifically, the latest Annual Report describes a high-growth scenario where EUV revenues of €32 billion could be attained by 2030. This is closely in line with our



internal estimate of almost €25 billion in 2030 EUV revenues, as discussed on page 61 of their report ("ASML 2024 Annual Report" 2024, 61). As the forecast transitions into the period of steady-state (2031–2035) growth, EUV segment growth is anticipated to moderate to about 10% per year. According to the company's information (ASML 2021), 94% of all lithography machines ever sold are still in operation, however production facilities usually need to be upgraded frequently, due to new technologies entering the market. This is indicative of the more mature market environment, yet one that is still underpinned by structural drivers like rising memory and Logic layer counts, as well as higher system throughput through the newly launched EXE:5200B platforms. These platforms, which become the core of high-volume manufacturing from 2026, further add to ASML's EUV lithography leadership ("ASML 2024 Annual Report" 2024)."

# **Cost of Sales/Gross Margin**

ASML's cost structure and gross margin results indicate that it has succeeded in scaling high-value lithography systems while taking advantage of an increasingly service-led business model. Five years of historically strong gross margins, ranging from 49% to 53% in that period, vindicate this success. In FY2024, ASML recorded a gross margin of 51.3% due to strong system pricing and increasing contributions from its high-margin Net Service and Field Options segment.

We believe that ASML will anticipate sustaining its gross margin in 2025 between the 51–53%, in line with 2024 Annual Report guidance, since ASML's customers are dependent on the new EUV technology as well as upgrades of their existing machines ("ASML 2024 Annual Report" 2024, 54). Such an outlook is underpinned by sustained uptake of EUV systems, DUV price growth, and operational efficiency improvements in service operations. In the medium to long term, ASML aspires to achieve a gross margin of 56% to 60% by 2030, driven by supportive market fundamentals and cost leverage on next-generation technologies such as High-NA ("ASML 2024 Annual Report" 2024, 61).

On the cost of sales side, ASML has a mix of system sales and related service activities. System expenses accounted for 76% of total expense in 2024, compared to 24% for services, both of which increased slightly year-over-year in dollars terms. This mix is likely to change slightly in the future as installed base grows and it signs more service and upgrade packages. In terms of operating expenses, R&D expenses totaled €4.3 billion in 2024, or 15.2% of revenues—a significant demonstration of ASML's long-term innovation strategy. This expenditure is used to further product development in EUV, DUV, and metrology technologies, and is



an indication of the company's ongoing dedication to technological leadership in an increasingly complicated and evolving semiconductor environment. SG&A expenses, on the other hand, were flat at approximately 4.1% of revenues, at €1.17 billion, as part of ASML's lean discipline to expenditures on administration and expanding customer support.

In short, ASML's gross margin path is strong, underpinned by managed cost base, increasing contributions of services, and strategically invested innovation. All these fundamentals lay a strong platform for expanding margins and sustained profitability up to 2030 and beyond.

# **Long Term Value Drivers**

The terminal growth rate is the long-term annual growth rate expected for an industry or company beyond the period of which the future cashflows can be estimated. Terminal value assumes that the business will grow at a set rate forever after the forecast period. The semiconductor industry is forecasted to grow at a CAGR of 7.5%-9%. ("2025 Global Semiconductor Industry Outlook," n.d.) and as the market is expanding rapidly because of the strong demand coming from AI, data centers and automotive industry. Everything that we use in our daily lives are dependent upon the semiconductor chips and this trend will only rise as we increasingly use technology for everything from communication, transportation and education. We have used the RONIC, ROIC and retention rate to attain the theoretical growth rate but it does not fit in with our assumptions especially for a high growth company like ASML. We have come up with a terminal growth rate of 5.21% using the growth from Free Cash Flows (FCF) which might look very aspiring and very optimistic but looking at the rate the industry is growing we think it fits our assumptions. This value seems fair and in line with the World long-term Nominal GDP growth rate of 5%(IMF).

# **Valuation Methods**

On 31 December 2024, the share price for ASML was €659.80, and the number outstanding was 393.3 million. In order to analyze the price, we used multiple valuation tools—Discounted Cash Flow (DCF), Adjusted Present Value (APV), Economic Value Added (EVA), Flow to Equity (FTE), and market multiples.

## **Discounted Cash Flow (DCF):**

DCF analysis employs the Weighted Average Cost of Capital (WACC) as the discount rate, including debt and equity funding. The WACC was calculated based



on a 2.50% risk-free rate (German 10-Year Bund), an A+ rating with debt beta as 0.05, and a market risk premium value of 4.33% as per Damodaran data. The calculated cost of debt was 2.72%, and the cost of equity, calculated based on a beta value on Bloomberg as 1.523, was 9.09%, resulting in the overall WACC. Core unlevered free cash flows and terminal value were estimated and then discounted in order to calculate the value of operations. The non-core elements, being added, contributed to the enterprise value. Subtracting the net debt, the value of equity was calculated as €290.81 billion, implying the share value as €739.41.

## Adjusted Present Value (APV)

The APV approach separates the value of unlevered operations, discounting core unlevered free cash flows and tax shields independently at the unlevered cost of capital (Ru). Both the cash flows and the tax shields were estimated for terminal values. After adding up their present values and considering non-core items, the enterprise value was calculated. Subtraction of net debt resulted in an equity value of €295.24 billion, ultimately giving a share price of €750.68.

# **Scenario Analysis**

To address the range of possible outcomes in ASML's future, we conducted a scenario analysis incorporating both optimistic and pessimistic projections. These scenarios hinge on fluctuating revenue trends across ASML's primary segments—EUV, DUV, Metrology & Inspection, and Net Services—alongside broader considerations like macroeconomic headwinds, investment in R&D, and shifts in operational productivity. This comparative lens helps gauge how sensitive ASML's valuation might be under varying internal dynamics and external conditions.

### **Worst-Case**

In the downside case, we assume a prolonged global economic deceleration that leads to uncertainty and reduced capital spending within the semiconductor ecosystem. Such a backdrop curtails ASML's growth prospects, particularly in EUV, which is projected to comprise only 18% of total revenues by 2027. Overall revenue expansion slows, with a CAGR from 2022 to 2027 of just 9.61%, noticeably lagging the base case estimate of 13.51%.

Supply chain vulnerabilities emerge under this stress, potentially delaying the rollout of crucial components—especially those tied to High NA EUV systems that depend on coordinated R&D with ASML's partners. Consequently, R&D expenditure intensifies, rising to 14% of revenue (up from 11.02% in the base



scenario), as innovation becomes more costly and complex. EBIT margins are expected to contract to 31.13% by 2027, reflecting diminished economies of scale and slower technological adoption. At the same time, capital expenditures climb as ASML works to preserve output despite declining operational efficiency.

This less favorable setup leads to materially lower projected cash flows. The terminal value takes a hit, bringing the per-share valuation down to €446.12—representing a 35.2% decline from the base-case figure of €659.80. Even a leader like ASML isn't immune to macroeconomic drag, as this scenario illustrates.

#### **Best-Case**

On the other hand, the upside scenario envisions a more robust global rebound and an investment-friendly climate across the semiconductor space. In such a favorable environment, ASML captures accelerated growth, with revenues climbing at a CAGR of 14.57% over the 2022–2027 period and projected to hit €82.07 billion by 2035. EUV adoption gains momentum, accounting for 27% of revenues by 2027, while the earlier rollout of High NA EUV platforms unlocks stronger margins due to the superior profitability of these systems.

This buoyant trajectory results in EBIT margins reaching 38.73% by 2027, fueled by improved operating leverage, a more profitable product mix, and gross margins forecast in the 54–56% range by 2025. R&D spending becomes more efficient, tapering to 10.91% of revenues, while capital intensity eases—property, plant, and equipment fall to 16% of sales, outperforming the 16.87% level in the base scenario.

The financial payoff is substantial: free cash flow projections increase meaningfully, driving up the terminal value and pushing enterprise value beyond €746 billion. The implied share price rises to €1,007.80, a 6.6% premium over the base-case valuation, signaling significant upside if macro trends and innovation efforts align favorably.



## **ASML HOLDING N.V.**

## **COMPANY REPORT**

LITHOGRAPHY EQUIPMENT

21 May 2025

STUDENT: ADAPA ROHAN, DUARTE QUINTAS

59140, 59664@novasbe.pt

## The Engine Behind Next-Gen Chipmaking

Driving innovation through EUV Lithography

- Our recommendation (considering the 21st of May 2025) is to BUY ASML Holding N.V., according to the estimated Price Target FY25 of 814.96 €, resulting in an upside of 24,27% in his stock price from the earliest mentioned date.
- The recent emergence of Artificial Intelligence (AI) and its expected impact on the semiconductor market, expected growth in global wafer capacity, electrification and the energy transition will lead to the ASML's future growth.
- Their unique control over EUV technology a key step in making the world's most advanced chips and the high cost and complexity of entering this field, ASML has positioned itself as an essential player in the future of microchip manufacturing.
- After 10 years in the making, ASML finalize and install the first High NA EUV system, setting the next generation of tools operational and innovated.

Recommendation: BUY

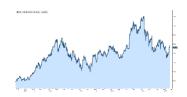
Price Target FY25: 739.41 €

Price (as of 22-May-25) 659.80 €

Bloomberg: ASML:NA

52-week range (€)	508.40-1021.80
Market Cap (€m)	261,031
Outstanding Shares (m)	393.8

Source: Yahoo Finance



Source: Bloomberg			
(Values in € millions)	2023	2024	2025F
Revenues	27559	28263	31648
EBIT	7646	7389	8753
Net Income	7839	7572	8937
EPS	19.93	19.25	22.72
Net Margin	28.44	26.79	28.23
Net Fin. Debt	-1702	-7471	-5749
ROIC	0.84	0.79	0.80
Debt-to-Equity	0.13	0.40	0.32
ROE	0.58	0.41	0.50
Cash-Ratio	0.43	0.64	0.60

Source: ASML Annual Report, Own Estimations



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# **Company Overview**



ASML is a Netherlands-based company that operates from its headquarters in Veldhoven, where it develops systems and software that assist semiconductor chip manufacturers in their operations. On April 1, 1984, ASML was founded as ASM Lithography through a joint venture between Philips and ASM International, with a clear purpose: to commercialize the PAS 2000 wafer stepper, which had been developed at Philips (Van Duijn, 2024).

ASML stands as a global semiconductor industry leader through its innovative approach. The company provides chipmakers with hardware components along with software solutions and service capabilities needed for high-volume silicon pattern manufacturing through lithography. ASML offers a wide range of products that match their customers' technology plans and needs, so that they can support them with lithography solutions for both advanced and more traditional chipmaking needs. ASML's customer base consists primarily of the world's leading semiconductor manufacturers, including companies such as Intel, TSMC, and Samsung, using ASML's advanced lithography systems in their specialized fabrication facilities, to produce integrated circuits. These microchips manufactured with ASML's technology serve as critical components in a wide range of electronic devices, including smartphones, laptops, data centers, and emerging applications such as autonomous vehicles and artificial intelligence systems.

ASML offers four main categories of products and services: EUV Lithography Systems; DUV Lithography Systems; Metrology and Inspection Systems; and Net Service and Field Options. In addition to these, the company also provides Refurbished Systems within the DUV segment, while engages in computational lithography, and delivers comprehensive customer support services (ASML Products & Services | Supplying the Semiconductor Industry, n...). In addition to these, the company also provides Refurbished Systems within the DUV segment, while engages in computational lithography, and delivers comprehensive customer support services. (ASML Products & Services | Supplying the Semiconductor Industry, n.dd.)

The world has no other manufacturer than ASML in 2025, which produces extreme ultraviolet (EUV) lithography machines that make it possible to produce smaller and faster microchips through shorter wavelength light use.



## **Products & Services**



## **Extreme Ultraviolet (EUV) Lithography Systems**

ASML provides extreme ultraviolet (EUV) lithography systems, which are the highest resolution systems for high-volume manufacturing. The state-of-the-art technology developed by ASML enables chipmakers to increase the number of transistors on a single chip, which advances Moore's Law due to its unique status in the industry. EUV lithography systems make it possible to print the smallest features on microchips at the highest density – they are used for the most intricate, critical layers on the most advanced microchips. (ASML 2024)

ASML's EUV systems accounted for about 30% of the revenue in 2024, just over €8 billion. The average price of a Low-NA EUV lithography system like the NXE costs an average of €183 million and a High-NA Twinscan EXE costs around \$380 million. In the year 2024, they sold 42 units of NXE and 2 units of EXE. Chips made with EUV lithography will be used in all leading-edge electronics today, from smartphones and AI to autonomous vehicles and high-performance computing platforms. The EUV lithography market is set for robust expansion, projected to grow from €11 billion in 2025 to € 40 billion by 2035, and we believe that EUV systems will be a major part of ASML's future revenue.

## Deep Ultraviolet (DUV) Lithography systems



DUV lithography systems are the workhorses of the industry, producing the majority of layers in microchips (ASML 2024 Annual Report, 2024, p. 23). DUV lithography systems serve as the essential foundation of the semiconductor production process. ASML supports a wide variety of market segments by offering both immersion and dry lithography systems. To meet the needs of different chipmaking technologies, the company uses multiple light sources that cover all key wavelengths currently used in the semiconductor industry. These include argon fluoride (ArF) lasers for 193 nm applications, krypton fluoride (KrF) lasers for 248 nm, and mercury vapor discharge lamps (i-line) for 365 nm. Their dry and immersion DUV systems serve the high-volume manufacturing requirements for the most advanced Logic and Memory chips and all other innovative chip applications.

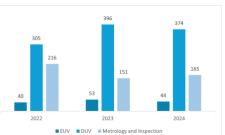
In fiscal year 2024, ASML's Deep Ultraviolet (DUV) systems represented a significant portion of the company's total revenue, accounting for nearly 46% of total sales, which amounted to approximately €12 billion. Within this segment, argon fluoride immersion (ArFi) systems emerged as the primary contributor,



generating around €9 billion through the sale of 129 units, each priced at roughly €77 million. According to ASML's 2024 Annual Report, demand for DUV systems exceeded the company's production capacity, particularly in China and for certain models. In response, ASML is actively collaborating with both customers and suppliers to enhance its output capabilities, navigate ongoing market uncertainties, and mitigate operational risks. (ASML 2024 Annual Report, 2024, p. 34)

## **Metrology & Inspection Systems**

The wafer metrology and inspection portfolio enable chipmakers to maximize their manufacturing yield, together with optimal performance for large-scale semiconductor chip production. The systems allow chipmakers to measure chip pattern quality while performing inspections and optimizations, which result in high yield and performance.



## **Net Service and Field Options**

ASML's Net Service and Field Options segment — also known as Installed Base Management (ASML 2024 Annual Report, 2024, p. 27)— plays a key role in helping customers get the most value out of their existing systems. Instead of just focusing only on new equipment, this ASML's segment offers a wide range of services, upgrades, and refurbished systems that extend the lifespan and improve the performance of machines already in use. Through the development and sell of product options, tailored software updates, hardware enhancements, on-site technical support, and upgrade options, as well as upgrading packages, ASML helps customers boost throughput, improve patterning precision, and keep up with evolving manufacturing requirements. These upgrade solutions also allow chipmakers to reduce their total cost by improving older systems rather than fully replacing them.

## **Customer support**

At ASML, the customer always comes first. The company has 10,000 customer support employees who consist of service engineers and applications specialists. ASML customer support applies deterministic diagnostics along with predictive methods to enhance maintenance and upgrades that match production schedules with customer needs.

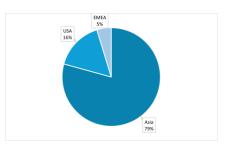
#### Geographics

ASML distributes its products through a direct sales model, maintaining a global presence that ensures proximity to their key customers. The company's network of account managers, field and application engineers, and technical support teams



is strategically positioned across Asia, the United States, and the EMEA region (ASML 2024 Annual Report, 2024, p. 28) while their customers expect them to have the right means in order to their needs and expectations.

ASML generates its revenue from different geographic regions due to the global nature of the semiconductor industry. The company obtained most of its revenue from Asia during the period 2020 to 2024, with Taiwan, South Korea and China accounting for majority of the revenues. Taiwan led with the highest contribution of 31.23%, followed by South Korea with 27.92% and China with 21.50% during this period. The three countries generated more than 80% of ASML's revenue demonstrating their importance as essential semiconductor manufacturing centers and ASML's primary customer base.



In 2024, China emerged as ASML's largest single market, generating €10.2 billion in revenue — a remarkable 40.59% year-over-year growth. South Korea remained the second-largest market, with €6.4 billion in revenue, followed by the United States (€4.5 billion), Taiwan (€4.4 billion), and EMEA (€1.3 billion). While the U.S. market showed a recovery from previous declines, Taiwan and EMEA experienced modest contractions in 2024.

From a historical growth perspective, some regions demonstrated significant volatility. For instance, the Netherlands saw sporadic spikes due to specific one-off shipments, while Rest of Asia remained marginal throughout the period. Despite this, the global diversification of ASML's customer base — with presence across North America, Europe, and Asia — remains a strategic advantage, even as the bulk of demand continues to originate from a relatively narrow group of countries.

## **Board of Management**

Name
Position

Christophe D. Fouquet
President, CEO, and Chair

Roger J.M. Dassen
Executive Vice President and CFO

James (Jim) P. Koonmen
Executive Vice President and CCO

Wayne R. Allan
Executive Vice President and CPO

Frédéric J.M. Schneider-Maunoury
Executive Vice President and COO

Five members serve on the present Board of Management. The 2024 AGM brought about the retirement of former President and CEO Peter Wennink and former President and CTO Martin van den Brink. The 2024 AGM appointed Christophe Fouquet to serve as President and CEO. The same day Jim Koonmen received his appointment as Chief Customer Officer and joined the Board of Management. The Board of Management functions as the governing body for ASML. It implements two main responsibilities which involve defining sustainable long-term value creation position and developing business strategies and deploying them and establishing risk management systems and control systems and achieving operational targets and financial targets and ESG targets.



## **Ownership Structure**

ASML Holding N.V. is publicly listed on both Euronext Amsterdam (ticker: ASML.AS) and the NASDAQ (ticker: ASML), with a market capitalization of approximately €259 billion as of the most recent valuation. The company has 393,283,720 shares outstanding, of which a significant portion is held by institutional investors, reflecting a concentrated and stable shareholder base. Among the largest shareholders are Capital Research and Management Company, holding over 40.6 million shares (10.33% of the total), and BlackRock Inc., with a stake of approximately 7.95%. Collectively, these two institutions account for more than 18% of ASML's equity. In contrast, the current members of ASML's Board of Management and Supervisory Board collectively hold a negligible portion of the company's shares—just over 43,000 shares, or roughly 0.01% of the total. This ownership structure, characterized by long-term institutional holdings and limited insider ownership, typically signals lower share turnover, contributing to enhanced share price stability and reduced short-term volatility. (ASML 2024 Annual Report, 2024, p. 110)

## Financial Snapshot 2024

The revenue at the end of year 2024 was around \$28.3 billion with just a modest growth of 2.56% over the previous year (ASML 2024 Annual Report, 2024). The increase in revenue was primarily driven by higher net service and field option sales as a result of a growing customer base. NXE EUV system sales volumes were lower due to a shift in the market dynamics, driven by AI. The gross profit increased by just 2.52% from 2023 to \$14.5 billion, the slight increase is due to net service sales. The gross margin remained stable at about 51.3%. ASML has sold 380 units of new lithography systems and 38 units of used lithography systems. ASML intends to declare a total dividend for the year 2024 of €6.40 per ordinary share, which is a 4.9% increase compared to 2023. The increase in R&D costs at \$4.3 billion, an increase of 8.1 % over the previous year, shows that ASML is investing in the new EUV systems and also the next generation lithography systems to increase productivity and make it cost-effective for the customers. (ASML 2024)

## **SWOT Analysis**

## **Strengths**

Monopoly in EUV Lithography - ASML is the only supplier of extreme ultraviolet





Memory Service and field options



(EUV) lithography systems, commanding about 90% of the global lithography market. This technological edge is a critical enabler for advanced semiconductor manufacturing and creates high entry barriers for competitors.

Robust IP Portfolio - ASML has a strong portfolio of patents that protect its technology and give it a competitive edge

#### Weaknesses

High Capital Intensity - Significant ongoing investments in R&D (up to 4 billion annually) and manufacturing are required to maintain technological leadership, impacting margins and increasing fixed costs.

Geopolitical Exposure - 36% of 2024 sales came from China, now constrained by export bans on advanced tools. This restriction could possibly affect 15-20% of the net sales of ASML.

#### **Opportunities**

Rising Demand for Advanced Chips - The worldwide interest in AI, 5G, quantum computing and automotive electronics drives an increase in demand for sophisticated chips which directly benefits ASML through its EUV and High-NA EUV systems.

Expansion in Emerging Markets - ASML has a strong opportunity to serve the growing markets of China and India because both countries experiencing major growth in their semiconductor industry sectors. The Indian semiconductor market is set to grow at a 15% CAGR from 2025 to 2030 and it is to reach \$108 billion in 2030 according to UBS.

#### **Threats**

Intense Competition - While ASML dominates EUV, competitors like Applied Materials, Lam Research, Canon, and Nikon continue to innovate in other areas of semiconductor equipment and could challenge ASML's dominance if new technologies emerge. While unmatched in EUV, ASML faces competition in Deep Ultraviolet (DUV) equipment from Canon and Nikon as both these companies are heavily investing in their DUV systems lineups hoping to gain more market share.

Cyclical Industry Dynamics -The semiconductor industry experiences recurring cycles that lead to reduced capital spending from chipmakers which negatively affects ASML's revenue performance and profitability levels.

#### Stock's Performance

Over the past 5 years, ASML Holding N.V. has significantly outperformed the AEX



Index. The current weight of the stock in the AEX Index is about 20%, given its substantial weighting, significant movement in ASML will influence the Index's performance. Over the past 5 years, ASML has given a cumulative return of 134.8% compared to the Index's return of 77.5%. In 2024, ASML repurchased 574,925 shares for a total consideration of €500.0 million. We assume ASML has consistently outperformed the Index due to the robust growth in the semiconductor equipment sector, particularly in the EUV segment, which is essential for advanced chip manufacturing.

# **Industry Analysis**

#### **Market Overview**

The semiconductor industry will experience strong growth throughout 2025 because of artificial intelligence (AI) and high-performance computing, together with electric vehicles (EVs) and data center expansion, create increasing demand. The industry demonstrates strong progress toward its \$1 trillion chip sales target for 2030, which indicates a 7.5% growth rate from 2025 to 2030 to achieve this key goal. ("2025 Global Semiconductor Industry Outlook," n.d.)

## The Key Growth Drivers are

Generative AI and Cloud Computing serve as primary growth drivers which lead to major investments in advanced chip development along with their production infrastructure. The implementation of AI technology creates higher market needs for innovative memory solutions and high-speed GPUs and drives increased data center investments during 2025.

Automotive and IoT - The increasing use of semiconductors in EVs, autonomous vehicles and IoT devices creates a broader market opportunity that demands more sophisticated energy-efficient and compact semiconductor chips.

Advanced Semiconductor Nodes - The industry is rapidly transitioning to 3nm and 2nm process technologies, enabled by innovations such as extreme ultraviolet (EUV) lithography. The market demand for advanced manufacturing equipment is driving companies' growth because of this trend.

## **Regional Dynamics**

Asia-Pacific remains the global manufacturing hub, with leading foundries (TSMC, Samsung) and significant investments in new fabrication facilities.



The U.S. and EU have introduced policies such as the CHIPS Act and the EU Chips Act to promote domestic production alongside supply chain resilience and advanced equipment use in both North America and Europe.

China maintains its large-scale semiconductor capacity development despite export regulations, which in turn drive worldwide equipment requirements.

## Outlook

The industry benefits from government-backed initiatives that expand production capabilities while also achieving supply chain localization. The industry faces challenges from supply chain vulnerabilities and geopolitical risks, and must develop its workforce to maintain growth and innovation. The semiconductor industry in 2025 demonstrates strong expansion potential combined with technological developments and new difficulties that it needs to address. The semiconductor sector will benefit from these trends, but needs to adjust to changing competitive dynamics and regulatory and operational demands.

# Risk & Challenges

## **Geopolitical Risks**

ASML is facing geopolitical risks because most of its sales originate from Taiwan and China but Chinese sales face challenges due to US and Dutch government restrictions aimed at blocking China's access to new and advanced lithography technology. ASML's situation improves slightly due to the US and European efforts to bring semiconductor manufacturing back home along with financial incentives that enhance ASML tool demand.

## **Nanoimprint Lithography**

The new nanoimprint lithography (NIL) systems from Canon deviates from traditional photolithography systems because it produces circuit patterns through mold stamping instead of using light to expose patterns and it apparently matches or surpasses ASML's performance at a reduced cost which could disrupt the market if validated at scale. NIL begins with a method that resembles photolithography's process. A pattern writing instrument uses a focused electron beam to write information on a "mask" object. EUV uses a mirror to capture this pattern which is then reflected toward the silicon surface. The NIL process requires a quartz master mask which produces multiple quartz replica masks. The replica mask presses against the wafer surface which has a liquid resin called a resist applied to it. This technology enables the creation of circuit features down to 14



nanometer sizes to produce logic chips comparable to Intel, AMD, and Nvidia processors made in mass production today.

In September 2024, Canon shipped the first commercial version of this technology and if they are correct then these machines will eventually deliver EUV-quality chips at a fraction of the cost. Canon claims that, compared to EUV, this direct contact method requires fewer steps and tools, resulting in a simpler process that's less costly to operate. For instance, compared to an EUV system employing a 250-watt light source, Canon estimates NIL consumes just one-tenth the energy and also it takes up less of the extremely valuable real estate in the fab's clean room. ("Nanoimprint Lithography Aims to Take on EUV," n.d.)

## **Supply Chain Disruption**

The production of ASML systems depends on third-party vendors for providing their essential components and subassemblies. The complex nature of EUV system components together with many others requires the supplier to be limited to only one due to economic reasons. The dependency on a small number of suppliers by ASML creates multiple risks which include supply chain interruptions for essential components and subassemblies as well as reduced ability to control pricing and quality. The production numbers of lithography systems at ASML are constrained by the manufacturing capabilities of Carl Zeiss SMT because they act as the exclusive supplier of essential optical components including lenses, mirrors, illuminators, collectors and other critical parts. (Referred to as optics). ASML maintains an exclusive relationship with Carl Zeiss SMT. Their production ability determines whether they can complete their orders. This situation would severely impact the overall business operations and result in strained customer relationships. The business operations of ASML as a company would come to an end if Carl Zeiss SMT either ends their supply partnership.

## **Investment Cycle**

The semiconductor industry has historically been cyclical. The timing, duration and volatility are difficult to predict and can have a significant impact on semiconductor equipment manufacturers including ASML. Newer entrants to the industry, including Chinese semiconductor manufacturers, could increase the risk of cyclicality in the future. (ASML 2024). Also, the current advanced node investment levels remain strong, but mature node funding has dropped to create a supply-demand imbalance. The automotive semiconductor industry depends on mature



nodes for its operations, thus creating potential supply chain disruptions. (James, n.d.)

## **Customer Dependency**

A high percentage of net sales is derived from a few customers. In 2024 TSMC, Intel and Samsung accounted for more than 60% of ASML's annual sales. ("Fitch Upgrades ASML to 'A+"; Outlook Stable," n.d.) Total net sales to the largest customer amounted to €4,682.4 million, or 16.6% of total net sales in 2024, compared with €8,772.9 million, or 31.8% of total net sales in 2023. In 2024, 30.5% of total net sales were made to the two largest customers. The loss of any significant customer or any significant reduction or delay in orders by such a customer may have adverse effect on the business, financial condition and results of operations. (ASML 2024)

# **Competitive Landscape**

ASML preserves its semiconductor equipment market dominance through its leadership in EUV lithography technology and consistent revenue growth from previous years.

#### **Direct Competitors**

ASML faces competition mainly from Canon and Nikon when it comes to DUV systems. Both companies possess substantial financial resources and extensive patent portfolios. The companies offer products that compete directly against ASML's DUV systems, which threatens the sales performance and business operations. (ASML 2024) Looking at the future objective of both companies, the DUV market will be very competitive and the revenue will be more evenly distributed among these three companies.

#### Canon

Canon is a leading technology company, founded in Japan in 1937. They employ over 182,000 people in marketing and manufacturing facilities across Japan, the Americas, Europe, Asia and Oceania. Canon recorded a staggering revenue of \$28.5 billion in the year 2024 across all their business units and one of their main drivers for revenue was their semiconductor lithography equipment. The optical equipment segment mainly related to semiconductor lithography equipment achieved net sales of around \$2.5 billion an increase of 13.3% compared to previous term which equates to 8% of the total net sales and employs 7740 employees. Canon operates in the DUV segment but continues to develop



alternative lithography technologies. Anticipating continuing market growth for semiconductors driven by essential devices used in AI, IoT, electric vehicles (EVs), and other technological innovations and recognizing the need to boost production capacity to respond to strong demand Canon has started construction of a new plant in Utsunomiya that is scheduled to become operational in 2025. They are also developing ArF lithography equipment with the aim of launching it in the second half of 2025. They are planning to expand the coverage of semiconductor production processes by enhancing their lineup. (Canon 2024)

#### Nikon

Nikon is a Japanese multinational company; it was a global leader in lithography in the Early 2000s. Nikon recorded a revenue of \$5 billion for the year 2024 and 30% of this revenue was from precision equipment business that manufactures lithography semiconductor equipment. It currently has 19,444 employees across all its segments. Nikon set a goal name "Vision 2030" and it is expected to make mega shifts ranging from people's values to social frameworks such as climate change and technology. By 2030 Nikon wats to establish Digital lithography for high-speed prototyping with direct lithography and to handle flexible manufacturing systems and will continue to grow optical and EUV-related components. They are also planning on a joint development rolled out with major semiconductor manufacturer for the development of new immersion platform to pursue compatibility and productivity. (Nikon 2024)

## **Indirect Competitors**

ASML competes against providers of applications that support complex patterning solutions through its competition with Applied Materials Inc. and KLA-Tencor Corporation. The company's applications offering competes with these applications, which represent a major segment of the business. (ASML 2024)

## **Applied Materials**

Applied Materials, Inc. is an American corporation and the world's leading semiconductor and display equipment company. In 2024 it had achieved a revenue of \$27.18 billion and also invested a significant amount (\$3.2 billion) into R&D. The company employs 35,700 employees across 207 cities and 24 countries. It also holds more than 22,000 patents showing its strength in new innovations. They have expertise in the design, development, production, and servicing of the critical wafer fabrication and display fabrication tools that customers need to manufacture semiconductors and displays. (AM 2024) Applied Materials introduced a patterning



system called Sculpta, which allows chipmakers to reduce EUV double patterning steps by elongating patterned features, bringing the tips of the features closer together than achievable with a single EUV or High-NA EUV exposure. ("Applied Materials Expands Patterning Solutions Portfolio for Angstrom Era Chipmaking | Applied Materials," n.d.) This could reduce the reliance on ASML's tools and as both ASML and Applied Materials sell to the same customers like TSMC and Samsung, so if they choose to spend more on Applied's equipment, that means less capex available for ASML's lithography tools.

#### Lam Research

Lam Research offers equipment that performs critical steps in semiconductor manufacturing particularly etching and deposition. In 2024 the company achieved a revenue of \$14.9 Billion and has invest about \$1.9 billion in R&D expenses. Lam employees more than 18,300 people across the globe. Lam has pioneered advanced etch techniques, such as atomic layer etching (ALE) are capable of removing a few atomic layers of material at a time. For numerous materials and demanding features involved, Lam's thin film deposition products provide the precision, performance, and flexibility needed for a wide range of challenging device applications. They also offer strip & clean services like removing remaining photoresist and provide process flexibility for multiple applications, while their high-productivity clean products deliver pristine surfaces center to edge for the most demanding cleaning steps. If Lam's etching innovations are able to maintain scaling with existing DUV tools then potential customers of ASML may defer invest in their EUV systems. (LAM 2024)

## **Tokyo Electron**

Tokyo Electron is a Japanese based company leading innovation in semiconductor production equipment. TEL is the only manufacturer in the world with a product portfolio covering the four sequential patterning processes, and we also command leading shares in many other product categories. Tokyo Electron recorded a revenue of about \$ 12.7 billion in 2024. They are number one when it comes to the patents owned (23,249). As semiconductor innovation is rising higher, they have decided to invest more than \$ 10 billion into R&D over the FY2025-FY2029. The three steps of lithography (photoresist coating, exposure, and development) are often performed inline on an integrated system, which requires high reliability and precise control. TEL has a 90% share of the overall market in the Coater/Developer market and almost a 100% share, especially for the high NA process. TEL has the second largest market share in dry etch systems. In particular, TEL excels in critical



etch processes for advanced devices due to its distinctive technologies and superior competitive performance. (TEL 2024)

#### **ASM**

ASM supplies wafer processing equipment to the leading semiconductor manufacturers, mostly for the deposition of thin films. They design, manufacture, sell, and service deposition tools to supply their customers with the advanced technologies to produce semiconductor devices, or integrated circuits (ICs). ASM employs more than 4600 individuals and more than 69 nationalities work at ASM. They have generated €2.9 billion in revenue in 2024 with a high gross margin of 50.5% and a net margin of 27.4%. ASM invests heavily in R&D and over 25% of employees are in the R&D division continuously developing new process and equipment to meet evolving industry needs. ASM is the leading supplier of Atomic Layer Deposition (ALD). ALD is the most advanced deposition method in the market, making it possible to create ultra-thin films of exceptional material quality, uniformity, and conformality. ALD is among the fastest-growing segments in the wafer fab equipment market, and ASM has the broadest portfolio of ALD products and applications. ASM plans to maintain a market share larger than 55% in the ALD segment and aims to increase their market share by more than 30% by the end of 2025 in Silicon epitaxy (Si Epi) market as ASM is number two in Epi market and saw a solid growth in their 2024 Epi revenues. Si Epi is used for depositing precisely controlled crystalline silicon-based layers, a critical process technology for creating advanced transistors and memories.

# **Valuation**

## **Financial Analysis**

## **Liquidity Ratios**

ASML			
Liquidity Ratios	2020	2022	2024
Current Ratio	2.41	1.28	1.53
Quick Ratio	1.72	0.88	0.99
Cash Ratio	0.92	0.40	0.64

Current Ratio - A company's capability to fulfill short-term debts is determined by its current ratio. The current ratio of ASML in 2024 stands at 1.53, while it exceeded 2 in 2020 before maintaining stability at approximately 1.5 in subsequent years, thus indicating that current assets outweigh liabilities and that the company can satisfy its short-term obligations.

Quick Ratio -The quick ratio assesses a business's capacity to fulfill its short-term responsibilities by using its most liquid assets. The quick ratio is more conservative and only takes into account liquid assets like cash, marketable securities, and



receivables and excludes inventory as it generally takes time to be converted into cash. The quick ratio of ASML equals 0.99, which indicates the company lacks enough liquid assets to cover its current liabilities. It also followed the same trend as the current ratio and was above one until 2021, then dropped below from 2022. But for a capital-intensive company like ASML, which has significant inventory due to the complexity of its products, this does not indicate any financial distress.

Cash Ratio - A company's ability to settle its short-term obligations with cash and near-cash resources is determined by the Cash Ratio. The Cash Ratio of ASML stands at 0.50. Demonstrating that current liabilities exceed the cash and cash equivalents and marketable securities, and the company lacks enough cash to satisfy its short-term debt obligations. It is typical for manufacturing firms to have lower cash ratios due to capital deployment in inventory and receivables.

## **Activity Ratios**

ASML			
Activity Ratios	2020	2022	2024
Average Holding Period	232	251	289
Average Payable Period	70	89	93
Average Collection Period	34	92	58
Cash Conversion Cycle	196	253	254

Average Holding Period - The inventory liquidity is indicated by the average holding period which shows the time inventory stays on hand until sale. The average holding period at ASML reaches 289 days which extends far beyond the typical duration of manufacturing companies. The extensive assembly and testing process alongside product complexity and customization during production cycles leads to this long holding period for its advanced lithography systems. Capital equipment companies within the semiconductor sector maintain typical long holding periods because their products are expensive, low-volume, and made according to customer specifications.

Average Payable Period - Average payable period indicates the duration suppliers must wait for payment from the company. ASML has an average payable period of 93, indicating that its ability to negotiate favorable payment terms and efficiently manage working capital, as it can retain cash for longer.

Average Collection Period - The average collection period tells us how many days, on average, it takes ASML to collect payment from its customers after making a sale, i.e., how quickly it turns sales into cash. ASML has an average collection period of 58, so it takes about 7-8 weeks to receive cash after delivering its products and services. This is quite efficient in the industry they are in and can impact their operations positively as they can reinvest cash into operations, R&D, and other initiatives.

Cash Conversion Cycle – The Cash Conversion Cycle (CCC) is a key financial metric used to assess a company's operational efficiency in managing its working capital. It measures the number of days required for a company to convert its



investments in inventory and other resources into cash flows from sales. Specifically, the CCC is calculated by adding the Average Holding Period (time inventory is held) and the Average Collection Period (time to collect receivables), and then subtracting the Average Payable Period (time the company takes to pay its suppliers). In ASML's case, although each component has been examined individually, the CCC offers a more integrated view of how these elements interact.

So, over the last five years, ASML's CCC has ranged from 186 to 254 days, with a notable growing trend started in 2022 and going until the most recent year, 2024. This increase is mainly due to a longer Average Holding Period, which reflects extended inventory cycles. At the same time, the Average Payable Period has also increased, suggesting that ASML is negotiating longer payment terms with suppliers, improving short-term cash retention, as meanwhile, the Average Collection Period has remained relatively stable, indicating consistent efficiency in receivables management. Although a higher CCC implies a longer working capital cycle, it remains relatively typical for capital-intensive industries like semiconductor equipment manufacturing, where long production and long delivery timelines are the norm.

#### **Solvency Ratios**

When evaluating ASML's financial health, it is important to consider not only its liquidity but also its capital structure and overall solvency, especially in relation to its capacity to service long-term obligations.

Starting with the Debt-to-Equity (D/E) ratio, ASML has consistently maintained conservative leverage levels, with the ratio remaining at or below 0.5 throughout the 2020–2024 period. Firstly, this reflects a strong equity cushion relative to its debt and highlights the company's preference for equity-financed growth. Similarly, the Debt-to-EBITDA ratio, which measures how many years it would take ASML to repay its debt using operating earnings, has also remained quite low—hovering around 0.5 in the most recent years—indicating that the company generates enough earnings to comfortably meet its financial obligations without overreliance on external funding.

Moreover, the Solvency Ratio, which compares equity to total liabilities, reinforces ASML's strong balance sheet position. While this ratio declined from 1.0 in 2020 to 0.6 in 2024, suggesting a gradual increase in leverage, it remains within a healthy range. At the same time, the Financial Autonomy Ratio (equity over total assets) has slightly improved to 0.4 in 2024, reflecting that a significant share of the company's assets continues to be funded through equity rather than debt—



another indicator of financial resilience.

Perhaps most telling is the trend in the Interest Coverage Ratio (EBIT/Interest Expense), which has fallen sharply from over 100 in the early years to negative values in 2023 and 2024. This drop is largely attributable to fluctuations in the "Interest and other, net" item (Interest and other, net consists mainly of interest income and interest expenses), recorded in the Consolidated Statement of Operations, mainly due to a significant increase in the Interest Income during this period, as detailed in Note 16 (ASML 2024 Annual Report, 2024, p. 357). Nevertheless, ASML's overall debt burden remains modest, and the company continues to generate strong and predictable operating earnings.

Taken together, these ratios suggest that ASML is in a strong financial position, with prudent leverage, robust earnings capacity, and a healthy balance between equity and debt financing. Although some indicators, such as the interest coverage ratio, signal volatility in recent years, mainly due to an increase of Interest Income, this does not materially undermine the company's ability to meet its obligations. Concluding and looking ahead, ASML is very well positioned to fund its long-term investments through a combination of retained earnings and manageable levels of long-term debt, maintaining flexibility as it continues to scale operations and support innovation.

#### **Profitability Ratios**

To evaluate ASML's profitability over the 2020–2024 period, three key metrics are particularly insightful: Gross Margin, EBIT Margin, and Net Margin. Together, these ratios provide a comprehensive view of the company's efficiency in converting revenue into profit across different levels of the income statement.

Starting with the Gross Margin, ASML has consistently demonstrated strong cost efficiency, maintaining levels around 50–52% throughout the period. In 2024, the gross margin stood at 51.28%, virtually unchanged from the 51.29% reported in 2023 ("ASML 2024 Annual Report" 2024, 55). This consistency highlights the company's robust pricing power and cost discipline, largely supported by the high value of its lithography systems and the growing contribution from services, which tend to carry higher margins.

Turning to the EBIT Margin, ASML showed a peak of 36.27% in 2021, during a period of exceptional demand and operational performance. Although this margin slightly declined to 31.92% by 2024, the change is largely attributable to ASML's continued investment in research and development, particularly in support of next-generation technologies like High-NA EUV and the NXT:870B platform ("ASML



2024 Annual Report" 2024, 296). In fact, R&D expenses rose by approximately 8.1% year-over-year, totaling €4.3 billion in 2024—demonstrating their intention to have the target of €4.0 billion R&D expenses by 2025.("ASML 2024 Annual Report" 2024, 55)

Finally, the Net Margin—which offers a clear view of how much profit the company retains from each euro of revenue—stood at 26.79% in 2024, slightly lower than the 28.44% achieved in the previous year. While this decline can be attributed to higher R&D and SG&A expenditures, it is worth noting that such a margin remains well above industry averages, reinforcing the strength and efficiency of ASML's business model. ("Semiconductors Industry Profitability" 2025)

In summary, despite minor fluctuations in margin levels over time, ASML's profitability profile remains remarkably strong. The company's ability to sustain high margins while actively investing in future technologies underlines its strategic focus and operational excellence. This solid financial performance not only reflects its market leadership but also reinforces its capacity to deliver long-term value, even amid an evolving and highly competitive semiconductor landscape.

# **Financial Statements Reformulation**

To comprehensively understand ASML's business segments and their impacts on the company, we reformulated the company's financial statements, including the Consolidated Statement of Operations, Consolidated Balance Sheet, and Consolidated Cash Flow Statement.

First of all, the Reformulated Income Statement is based on a distinction between Core, Non-Core, and financial activities. This restructuring allows for a more transparent separation of value-generating operations from activities that are peripheral or purely financial in nature. The objective of this reformulation is to isolate the Core and Recurrent Business, which reflects the company's operational engine, which includes revenues from EUV segment, DUV segment, Metrology & Inspection, and Net Service and field options related activities, from non-core elements, such as profits from equity method investments, one-off items, so basically non recurrent business. Additionally, Financial items, includes interest income, and interest expenses, which then give us the total Net Income, by summing the Core, Non-Core and Financial items, which should match the Net Income from the Consolidated Statement of Operations. This classification enhances analytical clarity and facilitates more meaningful comparisons over time



and across peers.

By reformulating the Balance Sheet, we distinguish between Core Invested Capital, so comprises the Net Working Capital, which means the difference between Current Assets and Current Liabilities, PP&E, and intangibles directly linked to operations, Goodwill, Right Use of Assets, and Non-Core Invested Capital, which includes items like financial participations, for example. This division allows us to isolate the capital that is truly productive from that which is not directly tied to operating value creation.

Likewise, the Cash Flow Map has been reconstructed to reflect the operational reality of ASML's business. It begins with Core EBIT and Recurrent NOPAT and follows through to the derivation of Core Unlevered Free Cash Flow, for example summing the Depreciation and Amortization, as well as Impairments, being that they are not an outflow of money. From there, Non-Core and Financial cash flows are layered in, providing a complete picture of total free cash flow available to the firm's stakeholders. This structure serves as the analytical foundation for all forecasting and valuation efforts in the subsequent sections of this report, where we project key drivers such as revenues, working capital, capital expenditures, and Core Invested Capital.

#### **Revenue Forecast**

In order to project ASML's revenues in the future, we organized our analysis by ASML's main segments: EUV, DUV, Metrology and Inspection, and Net Service and Field Options. We projected each of these separately based on its individual growth pattern, according to the most recent annual report issued by ASML as well. We divided our forecast into two major phases: the projection period, from 2025 to 2030, and the steady-state period, from 2031 to 2035. In the projection period, growth assumptions change every year to account for product maturity, expected demand, and segment-specific trends as well as market size. In the steady-state period, growth rates stabilize, reflecting a more established and stable state of ASML's industry. This segmented and time-based method enables us to better account for each component of ASML's portfolio as it is likely to change over time.

#### **EUV**

In order to analyze and predict ASML's EUV segment revenue, one needs to understand the segment's past performance and drivers of future growth first. In recent years, ASML's EUV segment has grown to be more significant, attaining €8.3 billion in revenue in FY2024 ("ASML 2024 Annual Report" 2024). Though it

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was down by approximately 9% year on year, it was largely due to system delivery schedules, however this was a period when ASML installed the industry's first High NA extreme ultraviolet (EUV) lithography system (ASML 2024 Annual Report, 2024, p. 7).

Looking to 2025 and beyond, the EUV segment is projected to bounce back strongly. For FY2025, ASML is projecting significant growth in sales driven by delivering about 5 EXE (High NA EUV) systems, and about 45 NXE (0.33 NA EUV) systems. Combined these volumes, alongside average unit prices of about €300–350 million for EXE and €180 million for NXE, support the strong projected revenues of €10.4 billion in 2025 alone. As it is mentioned in the 2024 Annual Report "EUV technology in particular is playing an increasingly significant role in driving this growth" ("ASML 2024 Annual Report" 2024, 54) this growth targets an implied year-over-year 25% growth, and is based on the acceleration in demand for leading-edge Logic and Memory chip manufacturing that EUV technology provides. ("ASML 2024 Annual Report" 2024, 38)

Since Nikon and Canon, the other two players in the market, do not produce EUV equipment, ASML holds a market share of 100%, which, we feel, shall continue to be so as technologies that pose substitutes to EUV, like Nanoimprint Lithography (NIL), remain immature and are likely to never reach similar performances, so the EUV line of business is anticipated to grow steadily at double-digit growth levels from 2026 to 2030, fueled by successive transitions of technology, expanding customer adoption, and scaling up of High NA EUV to mass production levels. Specifically, the latest Annual Report describes a high-growth scenario where EUV revenues of €32 billion could be attained by 2030. This is closely in line with our internal estimate of almost €25 billion in 2030 EUV revenues, as discussed on page 61 of their report ("ASML 2024 Annual Report" 2024, 61). As the forecast transitions into the period of steady-state (2031-2035) growth, EUV segment growth is anticipated to moderate to about 10% per year. According to the company's information (ASML 2021), 94% of all lithography machines ever sold are still in operation, however production facilities usually need to be upgraded frequently, due to new technologies entering the market. This is indicative of the more mature market environment, yet one that is still underpinned by structural drivers like rising memory and Logic layer counts, as well as higher system throughput through the newly launched EXE:5200B platforms. These platforms, which become the core of high-volume manufacturing from 2026, further add to ASML's EUV lithography leadership ("ASML 2024 Annual Report" 2024)."

DUV



The DUV segment remains a foundational component of ASML's revenue, particularly as it continues to support both advanced and mature node production. In 2024, DUV generated approximately €12.8 billion, marking a 4% decline from 2023, when revenues surged to €12.3 billion. Despite this slight contraction, DUV performance in 2024 remained robust and continued to represent one of ASML's largest revenue sources.

Going through the projection period (2025–2030), DUV revenue is expected to stabilize and grow at a moderate pace, supported by steady demand for immersion and dry lithography systems, since ASML now expect more weighting to advanced Logic (≤7 nm and below nodes) and advanced DRAM, required to support Alrelated applications, and less weighting on NAND and mainstream wafers ("ASML 2024 Annual Report" 2024, 38). In 2025, revenue is projected to reach €13.1 billion, a 2% increase year-over-year. This consistent upward trend continues through 2030, with DUV revenues forecasted at €13.9 billion, implying a modest but resilient CAGR of 1-2%. According to ASML's 2024 Annual Report, the company sees long-term relevance for DUV across multiple layers of chip production, particularly in high-volume manufacturing and for use in China, where export restrictions on EUV have created additional tailwinds for DUV systems ("ASML 2024 Annual Report" 2024, 34)

As the model transitions into the steady-state period (2031–2035), DUV revenue growth is expected to slow, stabilizing at approximately 1% per year, as shown in the forecast. This tapering reflects the segment's maturation, yet its continued relevance is ensured by a large installed base and ongoing system upgrades and services. Overall, the DUV segment is projected to remain a steady contributor to ASML's total revenue, offering balance against the more cyclical and innovation-driven EUV segment.

#### **Metrology and Inspection**

The Metrology and Inspection segment is projected to grow steadily in coming years, as it is used to support all of ASML's system platforms and is critical to chip quality and production yield enhancement. For both the projection and steady-state phases, we project 5% annual growth, which is in accordance with the IMF's forecasted global GDP growth rate ("World Economic Outlook (April 2025) - GDP, Current Prices" 2025). This assumption is based on the segment's wide application to various chipmaking processes and stable position within ASML's product line.

#### **Net Service and Field Options**

ASML's Net Service and Field Options segment, also referred to as their installed



base business, plays a vital role in sustaining the company's long-term value creation. This segment encompasses services, system upgrades, and field options tailored to improve system performance, throughput, and cost-effectiveness over time.

The segment benefits directly from the growth of the installed base of lithography systems, particularly EUV, as well as increasing utilization levels by customers. As reported in the 2024 Annual Report, service revenues saw a significant 15.6% increase over the previous year, primarily driven by these dynamics ("ASML 2024 Annual Report" 2024, 56).

For FY2025, the company has expressed confidence in the continued expansion of this business unit, projecting another year of growth due to elevated demand for upgrades and services linked to their broader system portfolio ("ASML 2024 Annual Report" 2024). This momentum is supported by the growing adoption of EUV technology and a robust services roadmap. Looking forward, ASML has outlined a long-term objective of reaching €12 billion in Net Service and Field Options revenue by 2030 ("ASML 2024 Annual Report" 2024, 61).

In line with this guidance, the projected revenue path in our forecast assumes a moderation from the sharp 15.6% growth in 2024 to a more gradual deceleration in subsequent years, ultimately stabilizing around a 5% steady-state growth rate. This reflects both the anticipated maturity of the installed base and aligns with a long-term global GDP assumption ("World Economic Outlook (April 2025) - GDP, Current Prices" 2025). The service segment is expected to remain a cornerstone of ASML's recurring revenue model, offering resilience against cyclical fluctuations in system sales.

# **Cost of Sales/Gross Margin**

ASML's cost structure and gross margin results indicate that it has succeeded in scaling high-value lithography systems while taking advantage of an increasingly service-led business model. Five years of historically strong gross margins, ranging from 49% to 53% in that period, vindicate this success. In FY2024, ASML recorded a gross margin of 51.3% due to strong system pricing and increasing contributions from its high-margin Net Service and Field Options segment.

We believe that ASML will anticipate sustaining its gross margin in 2025 between the 51–53%, in line with 2024 Annual Report guidance, since ASML's customers are dependent on the new EUV technology as well as upgrades of their existing machines ("ASML 2024 Annual Report" 2024, 54). Such an outlook is underpinned



by sustained uptake of EUV systems, DUV price growth, and operational efficiency improvements in service operations. In the medium to long term, ASML aspires to achieve a gross margin of 56% to 60% by 2030, driven by supportive market fundamentals and cost leverage on next-generation technologies such as High-NA ("ASML 2024 Annual Report" 2024, 61).

On the cost of sales side, ASML has a mix of system sales and related service activities. System expenses accounted for 76% of total expense in 2024, compared to 24% for services, both of which increased slightly year-over-year in dollars terms. This mix is likely to change slightly in the future as installed base grows and it signs more service and upgrade packages. In terms of operating expenses, R&D expenses totaled €4.3 billion in 2024, or 15.2% of revenues—a significant demonstration of ASML's long-term innovation strategy. This expenditure is used to further product development in EUV, DUV, and metrology technologies, and is an indication of the company's ongoing dedication to technological leadership in an increasingly complicated and evolving semiconductor environment. SG&A expenses, on the other hand, were flat at approximately 4.1% of revenues, at €1.17 billion, as part of ASML's lean discipline to expenditures on administration and expanding customer support.

In short, ASML's gross margin path is strong, underpinned by managed cost base, increasing contributions of services, and strategically invested innovation. All these fundamentals lay a strong platform for expanding margins and sustained profitability up to 2030 and beyond.

# Net Working Capital, CAPEX and Core Invested Capital

It is important for the analysis of the operational effectiveness and the funding needs for ASML to understand the structure and evolution of Net Working Capital, Capital Expenditures and Core Invested Capital. In it, the Net Working Capital (NWC) is an extremely important component. NWC indicates the company's short-run liquidity and operational efficiency, and as far as valuation is concerned, it is an important building block for the Core Invested Capital. It includes the operational components like operating cash, inventories, receivables, payables, contract assets, and contract liabilities. Positive working capital usually suggests that the company has the finances to finance its ongoing activities and invest in its future operations.



We assume Operating Cash at 2% of the revenues, following McKinsey valuation practices. ("McKinsey on Finance," 2011) (Koller et al., 2025). This assumption normalizes the comparisons and maintains consistency between periods, recognizing that some operational liquidity is always being kept back for funding core business activities.

Contract Liabilities consist of advance payments from customers for equipment delivery in the upcoming periods. As an indicator of strength, not weakness, these liabilities give ASML positive cash flow and minimize the need for external funding. The model provides the company with greater visibility into forward revenue and manufacturing planning, in addition to capturing the customer confidence in the delivery commitments made by ASML for the longer term. During the forecasting period, the NWC remains negative — approximately -43% of revenues — but this structural component continues to contribute towards ASML's operating cash cycle and cash flow situation.

In the area of Capital Expenditures (CAPEX), ASML has traditionally pursued long-term technology advancement. Capex primarily consists of investment in property, plant, and equipment (PP&E), as such is necessary for creating and producing next-generation lithography systems, as for example newest and more efficient EUV Lithography Systems. According to the 2024 Annual Report, the company spent more than €6 billion in PP&E, comparing to the €2 Billion spent in 2020 and 2021, having eight factories in Europe, the US and Asia that provide high-precision, highly controlled environments where assemble, test and deliver complex lithography and metrology and inspection portfolio (ASML 2024 Annual Report, 2024, p. 42), driving its capacity increases and infrastructure upgrades in response to future demand.

Core Invested Capital is made up of NWC and fixed operational assets including PP&E, intangible assets, and right-of-use assets. Core Invested Capital decreased gradually between 2020 and 2024, declining from €10.8 billion in 2020 to €8.6 billion in 2024, but after that we forecast rising this combination of segments, reaching €20.5 billion in 2030, and is estimated to reach €46.5 billion in 2035. This is mainly supported by the increase in the CAPEX, properly in PP&E and the receiving of Finance Receivables, which stands for outstanding payments due from customers under financing arrangements such as sales-type leases or extended payment terms. These receivables arise when ASML facilitates customer purchases of its lithography systems by offering structured payment plans.

# **Free Cash Flow**



ASML's Total Unlevered Free Cash Flow (UFCF) has exhibited consistent yearover-year growth, evidencing the company's solid operating performance and sound approach toward the allocation of capital. Following the downturn in 2023 owing to a cyclical decrease in Net Working Capital and higher investment, UFCF recovered vigorously in 2024 at the level of €9.3 billion. In the projection years (2025–2030), the free cash flow will continue growing at an increasing rate, buoyed by climbing operating earnings and managed working capital and capex changes. In 2030, the UFCF is projected at €13.9 billion, representing a 15% CAGR from the base year. In the steady-state era (2031–2035), the increment in the free cash flow starts leveling off, climbing from €16.4 billion in 2031 through to €18.6 billion in 2035. Such an accelerating trend is in tune with ASML's revenue outlook in the distant term and indicates an increasingly stable cash-generating profile after the company enters the operational maturity and capex efficiency stage. As such, the ability of the company to translate earnings into cash underpins the solid base in valuation and highlights the company's ability to finance growth, return value back to the shareholder base, and preserve financial flexibility.

# **Valuation Methods**

On 31 December 2024, the share price for ASML was €659.80, and the number outstanding was 393.3 million. In order to analyze the price, we used multiple valuation tools—Discounted Cash Flow (DCF), Adjusted Present Value (APV), Economic Value Added (EVA), Flow to Equity (FTE), and market multiples.

#### **Discounted Cash Flow (DCF):**

DCF analysis employs the Weighted Average Cost of Capital (WACC) as the discount rate, including debt and equity funding. The WACC was calculated based on a 2.50% risk-free rate (German 10-Year Bund), an A+ rating with debt beta as 0.05, and a market risk premium value of 4.33% as per Damodaran data. The calculated cost of debt was 2.72%, and the cost of equity, calculated based on a beta value on Bloomberg as 1.523, was 9.09%, resulting in the overall WACC. Core unlevered free cash flows and terminal value were estimated and then discounted in order to calculate the value of operations. The non-core elements, being added, contributed to the enterprise value. Subtracting the net debt, the value of equity was calculated as €290.81 billion, implying the share value as €739.41.

#### Adjusted Present Value (APV)

The APV approach separates the value of unlevered operations, discounting core



unlevered free cash flows and tax shields independently at the unlevered cost of capital (Ru). Both the cash flows and the tax shields were estimated for terminal values. After adding up their present values and considering non-core items, the enterprise value was calculated. Subtraction of net debt resulted in an equity value of €295.24 billion, ultimately giving a share price of €750.68.

#### **Economic Value Added (EVA)**

EVA is concerned with whether ASML generates value above its cost of capital. The WACC was once more used as the discount rate. While the ROIC and the RONIC decrease during the forecasting timeframe, it still remained above the WACC, implying value creation. EVA for each year was calculated as the difference between the ROIC and the WACC multiplied against invested capital. The total value was calculated as the sum of the value of EVA in each year, terminal EVA, the initial invested capital, and the non-core assets. Using the above methodology, the value for equity was calculated as €373.90 billion and the share price was calculated as €950.69.

#### Flow to Equity (FTE)

FTE estimates the value of the equity by discounting the cash flows accessible for the benefit of the shareholders with the cost of equity (Re = 9.09%). Terminal value and cash flows each year for equity were estimated, taking into account net financial debt and shareholder transactions changes. Discounted at the cost of equity, this provided an equity value of €292.25 billion, and the share price would be €743.07.

#### **Market Multiples**

The comparable companies were drawn from the wider semiconductor group as well as the specialist lithography equipment niche, including Canon Inc., Nikon Corporation, KLA Corporation, LAM Research, ASM International, Applied Materials, and Tokyo Electron. While in analogous lines of business, none of these companies share ASML's special technological niche, further solidifying its monopoly. Of the multiples considered, the EV/EBITDA was the most suitable. It produced valuations that were not in very close proximity to the share price as May 21, 2025 (€659.80), and reflects the drawback of relative valuation for an incumbent monopoly such as ASML.

# **Long Term Value Drivers**



The terminal growth rate is the long-term annual growth rate expected for an industry or company beyond the period of which the future cashflows can be estimated. Terminal value assumes that the business will grow at a set rate forever after the forecast period. The semiconductor industry is forecasted to grow at a CAGR of 7.5%-9%. ("2025 Global Semiconductor Industry Outlook," n.d.) and as the market is expanding rapidly because of the strong demand coming from AI, data centers and automotive industry. Everything that we use in our daily lives are dependent upon the semiconductor chips and this trend will only rise as we increasingly use technology for everything from communication, transportation and education. We have used the RONIC, ROIC and retention rate to attain the theoretical growth rate but it does not fit in with our assumptions especially for a high growth company like ASML. We have come up with a terminal growth rate of 5.21% using the growth from Free Cash Flows (FCF) which might look very aspiring and very optimistic but looking at the rate the industry is growing we think it fits our assumptions. This value seems fair and in line with the World long-term Nominal GDP growth rate of 5%(IMF).

# **Discount Rate (WAAC)**

We computed the WACC using the risk-free rate, we used the Germany Bund 10 Year Yield, which currently stands at 2.50%. ("German Rates & Bonds," n.d.) The cost of debt was determined using the credit rating approach, resulting in a A+credit rating ("ASML Holding N.V. Credit Ratings: Fitch Ratings," n.d.) and a debt beta of 0.05. Applying the CAPM with a risk-free rate and a Market Risk Premium (MRP) sourced from Damodaran's "Country Default Spreads and Risk Premium" of 4.33% ("Country Default Spreads and Risk Premiums," n.d.), the cost of debt was calculated to be 2.72%. To determine the cost of equity we took the historical data of beta value from Bloomberg to be at 1.523. This yielded a cost of equity of 9.09%. We computed ASML's WACC to be 9%, which serves as the minimum required return for its investments to create shareholder value.

# **Sensitivity Analysis**

We performed a sensitivity analysis applying the Discounted Cash Flow method in order to test the strength of our valuation and determine the effect on the intrinsic value of ASML from the major assumptions.

First of all, the two most important variables we estimated include the Weighted



Average Cost of Capital (WACC) and the Terminal Growth Rate (g). All these inputs are uncertain and have the potential to impact the share price substantially. For example, WACC would respond strongly to changes in many underlying determinants: the risk-free rate, market risk premium, the cost of debt, and most specifically the equity beta, whose value depends on the relative volatility in ASML returns versus the market. Additionally, also external market movements (e.g., changes in interest rates or inflation expectations), or internal company decisions (e.g., those related to ASML's funding strategy or its mix of equity and debt), may cause changes in these assumptions. Furthermore, altering the regression period between ASML and the MSCI World Index can change the beta and, consequently, the cost of equity.

Likewise, the terminal growth rate reflects longer-term expectations outside the stated forecast period. Minor variations in the rate, traditionally the same as, or slightly higher than the World GDP, can make a large difference in the terminal value component in the DCF, representing much of the entire valuation. Moreover, our DCF method sensitivity matrix indicates how changes in WACC (between 6% and 12%) and terminal growth (between 2.21% and 8.21%) affect the calculated share price. Specifically, the calculations reveal the share price of ASML is fairly responsive to these variables. For instance, using our base case assumption of 9% WACC and 5.21% terminal growth, the calculated share price is roughly €739.35. Decreasing WACC 1% (to 8%) raises the valuation to €950.67, whereas an increase in WACC lowers it to €581.66.

# Scenario Analysis

To address the range of possible outcomes in ASML's future, we conducted a scenario analysis incorporating both optimistic and pessimistic projections. These scenarios hinge on fluctuating revenue trends across ASML's primary segments—EUV, DUV, Metrology & Inspection, and Net Services—alongside broader considerations like macroeconomic headwinds, investment in R&D, and shifts in operational productivity. This comparative lens helps gauge how sensitive ASML's valuation might be under varying internal dynamics and external conditions.

#### **Worst-Case**

In the downside case, we assume a prolonged global economic deceleration that leads to uncertainty and reduced capital spending within the semiconductor ecosystem. Such a backdrop curtails ASML's growth prospects, particularly in EUV, which is projected to comprise only 18% of total revenues by 2027. Overall



revenue expansion slows, with a CAGR from 2022 to 2027 of just 9.61%, noticeably lagging the base case estimate of 13.51%.

Supply chain vulnerabilities emerge under this stress, potentially delaying the rollout of crucial components—especially those tied to High NA EUV systems that depend on coordinated R&D with ASML's partners. Consequently, R&D expenditure intensifies, rising to 14% of revenue (up from 11.02% in the base scenario), as innovation becomes more costly and complex. EBIT margins are expected to contract to 31.13% by 2027, reflecting diminished economies of scale and slower technological adoption. At the same time, capital expenditures climb as ASML works to preserve output despite declining operational efficiency.

This less favorable setup leads to materially lower projected cash flows. The terminal value takes a hit, bringing the per-share valuation down to €446.12—representing a 35.2% decline from the base-case figure of €659.80. Even a leader like ASML isn't immune to macroeconomic drag, as this scenario illustrates.

#### **Best-Case**

On the other hand, the upside scenario envisions a more robust global rebound and an investment-friendly climate across the semiconductor space. In such a favorable environment, ASML captures accelerated growth, with revenues climbing at a CAGR of 14.57% over the 2022–2027 period and projected to hit €82.07 billion by 2035. EUV adoption gains momentum, accounting for 27% of revenues by 2027, while the earlier rollout of High NA EUV platforms unlocks stronger margins due to the superior profitability of these systems.

This buoyant trajectory results in EBIT margins reaching 38.73% by 2027, fueled by improved operating leverage, a more profitable product mix, and gross margins forecast in the 54–56% range by 2025. R&D spending becomes more efficient, tapering to 10.91% of revenues, while capital intensity eases—property, plant, and equipment fall to 16% of sales, outperforming the 16.87% level in the base scenario.

The financial payoff is substantial: free cash flow projections increase meaningfully, driving up the terminal value and pushing enterprise value beyond €746 billion. The implied share price rises to €1,007.80, a 6.6% premium over the base-case valuation, signaling significant upside if macro trends and innovation efforts align favorably.

# Conclusion

#### "ASML HOLDING N.V."

#### **COMPANY REPORT**



ASML's intrinsic value has been assessed using multiple valuation methodologies for FY25, all of which point to a favorable investment outlook. The DCF model yields a share price estimate of €739.41, while the APV and FTE approaches result in similar valuations of €750.68 and €743.07, respectively. The EVA method, which captures economic profit beyond capital costs, implies a higher value of €950.69 per share. Compared to the current share price of €659.80 (as of 22-May-2025), these figures indicate an upside potential ranging from 12% to over 44%. ASML's dominant position in EUV technology, reinforced by the successful deployment of High NA EUV systems, underpins its strategic leadership in advanced chipmaking. With strong long-term tailwinds from AI, electrification, and global semiconductor expansion, ASML is structurally positioned to benefit from rising demand across both mature and emerging markets. Its high barriers to entry, robust innovation pipeline, and consistent free cash flow generation provide a resilient investment case. Despite potential risks from geopolitical exposure and industry cyclicality, the fundamentals support a favorable risk-return profile. Given the current valuation gap and ASML's unique market position, our investment recommendation is a BUY.



# **Appendix**

# **Financial Statements**

Income Statement (Reformulated)

Year ended December 31 (€ M)	2020 A	2021 A	2022 A	2023 A	2024 A
Core					
Revenues per segment					
EUV	4,463.8	6,284.0	7,045.1	9,124.0	8,321.6
DUV	5,502.2	6,855.1	7,725.4	12,278.5	12,802.1
Metrology and Inspection	350.6	513.7	659.6	536.1	645.5
Net Service and Field Options	3,661.9	4,958.2	5,743.1	5,619.9	6,493.9
Total Net Sales	13,978.5	18,611.0	21,173.2	27,558.5	28,263.1
Cost of Sales					
System sales	(5,169.3)	(6,482.9)	(7,582.3)	(10,151.0)	(10,406.9)
Services	(2,012.0)	(2,319.1)	(2,891.0)	(3,271.4)	(3,364.0)
Total Cost of Sales	(7,181.3)	(8,802.0)	(10,473.3)	(13,422.4)	(13,770.9)
Gross Profit	6,797.2	9,809.0	10,699.9	14,136.1	14,492.2
SG&A	(544.9)	(725.6)	(945.9)	(1,113.2)	(1,165.7)
R&D	(2,200.8)	(2,547.0)	(3,253.5)	(3,980.6)	(4,303.7)
Gain on sale of subsidiaries	(2,200.6)	213.7	- (3,233.3)	(3,560.0)	(4,303.7)
Core Result Before Taxes	4,051.5	6,750.1	6,500.5	9,042.3	9,022.8
Statutory Taxes	(1,012.9)	(1,687.5)	(1,677.1)	(2,332.9)	(2,327.9)
Tax Adjustments	458.5	700.2	735.2	936.8	693.9
Core Result = NOPAT	3,497.1	5,762.8	5,558.6	7,646.2	7,388.8
Non-Core Business					
Interest Income	-	-	0.6	2.4	
Non Core Result Before Taxes	-	-	0.6	2.4	-
Statutory taxes			(0.2)	(0.6)	
Tax Adjustments	(5.9)				
Profit from equity method investments	88.6	199.1	138.0	191.3	209.8
Non-Core Result After Taxes	82.7	153.9	99.0	164.0	168.2
Financial					
Interest and other, net	(34.9)	(44.6)	(45.2)	38.8	20.0
Financial Result Before Taxes	(34.9)	(44.6)	(45.2)	38.8	20.0
Statutory Taxes	(8.7)	(11.2)	(11.7)	10.0	5.2
Financial Result After Taxes	(26.2)	(33.5)	(33.5)	28.8	14.8
Net income	3,554	E 002 A	E 624 0	7 929 0	7,572.0
Check	3,554 TRUE	5,883.0 TRUE	5,624.0 TRUE	7,839.0 TRUE	TRUE
CHECK	IKUE	INUE	INUE	INUE	INUE



# Balance Sheet (Reformulated)

Year ended December 31 (€ M)	2020 A	2021 A	2022 A	2023 A	2024 A
Core Business					
Operating cash	280	372	423	551	565
as % of Sales	2%	2%	2%	2%	2%
Account receivables	1,310	3,028	5,324	4,334	4,478
Finance receivables	1,711	1,186	1,357	1,379	83
Current tax assets (liabilities)	(43)	(260)	(282)	692	0
Contract assets	119	165	132	240	321
Inventories	4,569	5,179	7,200	8,851	10,892
Other assets	763	948	1,626	1,559	1,844
Accounts payable	(1,378)	(2,116)	(2,565)	(2,347)	(3,500)
Accrued and other liabilities	(1,254)	(1,569)	(1,921)	(2,241)	(2,795)
Contract liabilities	(3,954)	(7,935)	(12,481)	(11,441)	(12,571)
Net Working Capital	2,123	(1,002)	(1,187)	1,577	(685)
Finance receivables	401	383	-	61	317
Deferred and other tax assets (liabilities)	433	858	1,406	1,500	1,642
Other assets	828	840	740	641	791
Goodwill	4,629	4,556	4,556	4,589	4,589
Other intangible assets	1,049	952	842	742	621
PP&E	2,470	2,983	3,944	5,493	6,847
Right Use of Assets	345	165	193	307	387
Contract liabilities	(1,640)	(3,226)	(5,270)	(4,826)	(5,625)
Accrued and other liabilities	(130)	(115)	(149)	(181)	(237)
Core Invested Capital	10,508	6,393	5,075	9,902	8,646
Non-Core Business					
Participation in Carl Zeiss	820.7	892.5	923.6	919.6	903
Loan to Carl Zeiss	0	124.4	364.4	929.2	1456.6
Non-Core Invested Capital	821	1,017	1,288	1,849	2,360
Total Invested Capital	11,329	7,410	6,363	11,751	11,005
Financial					
Excess cash & Short-term Investments	7,072	7,218	6,953	6,459	12,176
Derivative financial assets (liabilities)	143	97	(244)	(126)	(17)
Gross Financial Debt	4,678	4,584	4,260	4,632	4,688
Net Financial Debt	(2,537)	(2,731)	(2,448)	(1,702)	(7,471)
Total Shareholders' Equity	13,865	10,141	8,811	13,452	18,477
Total Funding	11,329	7,410	6,363	11,751	11,005
Check	TRUE	TRUE	TRUE	TRUE	TRUE



## Forecasted Income Statement

								Projectio	n Period				S	teady State		
Year ended December 31 (€ M)	2020 A	2021 A	2022 A	2023 A	2024 A	2025 E	2026 F	2027 F	2028 F	2029 F	2030 F	2031 F	2032 F	2033 F	2034 F	2035 F
Core																
Revenues per segment																
EUV	4,463.8	6,284.0	7,045.1	9,124.0	8,321.6	10.402.0	13,002.5	15,603.0	18,723.6	21,532.1	24,762.0	27,238.2	29,962.0	32,958.2	36,254.0	39,879.4
Metrology and Inspection	350.6	513.7	659.6	536.1	645.5	677.8	711.7	747.2	784.6	823.8	865.0	908.3	953.7	1,001.4	1,051.5	1,104.0
Net Service and Field Options	3,661.9	4,958.2	5,743.1	5,619.9	6,493.9	7,503.8	8,554.4	9,580.9	10,539.0	11,382.1	12,065.0	12,668.3	13,301.7	13,966.8	14,665.1	15,398.4
Total Net Sales	13,978.5	18,611.0	21,173.2	27,558.5	28,263.1	31,641.7	35,587.8	39,383.6	43,634.2	47,461.0	51,552.1	54,813.4	58,356.1	62,206.4	66,393.4	70,948.9
Cost of Sales																
System sales	(5,169.3)	(6,482.9)	(7,582.3)	(10,151.0)	(10,406.9)	(11,145.3)	(12,260.4)	(13,257.8)	(14,338.0)	(15,206.4)	(16,086.1)	(16,636.3)	(17,203.8)	(17,787.0)	(18,383.3)	(18,989.7)
Services	(2,012.0)	(2,319.1)	(2,891.0)	(3,271.4)	(3,364.0)	(3,947.3)	(4,342.2)	(4,695.5)	(5,078.0)	(5,385.6)	(5,697.2)	(5,892.0)	(6,093.0)	(6,299.6)	(6,510.8)	(6,725.5)
Cost of Sales	(7,181.3)	(8,802.0)	(10,473.3)	(13,422.4)	(13,770.9)	(15,092.6)	(16,602.6)	(17,953.2)	(19,416.0)	(20,591.9)	(21,783.3)	(22,528.3)	(23,296.9)	(24,086.6)	(24,894.1)	(25,715.2)
Gross Profit	6,797.2	9,809.0	10,699.9	14,136.1	14,492.2	16,549.1	18,985.3	21,430.4	24,218.2	26,869.0	29,768.9	32,285.1	35,059.2	38,119.9	41,499.4	45,233.7
Gross Margin	49%	53%	51%	51%	51%	52%	53%	54%	56%	57%	58%	59%	60%	61%	63%	64%
SG&A	(544.9)	(725.6)	(945.9)	(1,113.2)	(1,165.7)	(1,292.8)	(1,454.0)	(1,609.1)	(1,782.7)	(1,939.1)	(2,106.2)	(2,239.5)	(2,384.2)	(2,541.5)	(2,712.6)	(2,898.7)
R&D	(2,200.8)	(2,547.0)	(3,253.5)	(3,980.6)	(4,303.7)	(4,712.5)	(5,300.3)	(5,865.6)	(6,498.6)	(7,068.6)	(7,677.9)	(8,163.6)	(8,691.2)	(9,264.7)	(9,888.3)	(10,566.7)
Gain on sale of subsidiaries		213.7		-	-											
Core Result Before Taxes	4,051.5	6,750.1	6,500.5	9,042.3	9,022.8	10,543.8	12,231.0	13,955.8	15,936.8	17,861.4	19,984.7	21,882.1	23,983.7	26,313.6	28,898.5	31,768.2
	(*******	()	(0.00.0)	(			(a. a.a. a.)	(1	()	()	()	(= = - = 1	()	(	()	(= .== =)
Core Taxes	(554.4)	(987.3)	(941.9)	(1,396.1)	(1,634.0)	(1,792.4)	(2,079.3)	(2,372.5)	(2,709.3)	(3,036.4)	(3,397.4)	(3,719.9)	(4,077.2)	(4,473.3)	(4,912.7)	(5,400.6)
Core Result = NOPAT	3,497.1	5,762.8	5,558.6	7,646.2	7,388.8	8,751.4	10,151.7	11,583.3	13,227.6	14,824.9	16,587.3	18,162.1	19,906.5	21,840.3	23,985.7	26,367.6
Non-Core Business																
Interest Income			0.6	2.4												
Non Core Result Before Taxes			0.6	2.4					-							
Statutory taxes			(0.2)	(0.6)	-											
Statutory taxes	-	•	(0.2)	(0.0)	- 1											
Tax Adjustments	(5.9)	(45.2)	(39.4)	(29.1)	(41.6)											
	(2.2)	(10.0)	(22.17	(20.2)	(12.0)											
Profit from equity method investments	88.6	199.1	138.0	191.3	209.8	172.8	179.6	186.7	194.0	201.7	209.6	217.9	226.4	235.3	244.6	254.2
Non-Core Result After Taxes	82.7	153.9	99.0	164.0	168.2	172.8	179.6	186.7	194.0	201.7	209.6	217.9	226.4	235.3	244.6	254.2
Financial																
Interest and other, net	(34.9)	(44.6)	(45.2)	38.8	20.0	15.0	12.0	10.0	7.0	5.0	2.0	-	(2.0)	(5.0)	(8.0)	(10.0)
Financial Result Before Taxes	(34.9)	(44.6)	(45.2)	38.8	20.0	15.0	12.0	10.0	7.0	5.0	2.0		(2.0)	(5.0)	(8.0)	(10.0)
Interest Tax Shield	(8.7)	(11.2)	(11.7)	10.0	5.2	3.9	3.1	2.6	1.8	1.3	0.5	-	(0.5)	(1.3)	(2.1)	(2.6)
Financial Result After Taxes	(26.2)	(33.5)	(33.5)	28.8	14.8	11.1	8.9	7.4	5.2	3.7	1.5	-	(1.5)	(3.7)	(5.9)	(7.4)
Net income	3,554	5,883.0	5,624.0	7,839.0	7,572.0	8,935.3	10,340.3	11,777.4	13,426.8	15,030.3	16,798.4	18,380.0	20,131.4	22,072.0	24,224.4	26,614.4
Check	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE



## Forecasted Balance Sheet

								Projectio	n Period					Steady State		1
Year ended December 31 (€ M)	2020 A	2021 A	2022 A	2023 A	2024 A	2025 E	2026 F	2027 F	2028 F	2029 F	2030 F	2031 F	2032 F	2033 F	2034 F	2035 F
Core Business																
Operating cash	280	372	423	551	565	633	712	788	873	949	1,031	1,096	1,167	1,244	1,328	1,419
Account receivables	1,310	3,028	5,324	4,334	4,478	5,212	5,862	6,487	7,187	7,817	8,491	9,029	9,612	10,246	10,936	11,686
Finance receivables	1,711	1,186	1,357	1,379	83	82.7	1850.226847	2039.761875	2265.10656	2469.313138	2702.580307	1264.35491	1351.631423	1447.189501	1551.850114	1666.516122
Current tax assets (liabilities)	(43)	(260)	(282)	692	0	(51)	(40)	71	259	47	63	69	76	83	92	101
Contract assets	119	165	132	240	321	276	311	344	381	414	450	479	510	543	580	619
Inventories	4,569	5,179	7,200	8,851	10,892	10,150	11,165	12,073	13,057	13,848	14,649	15,150	15,667	16,198	16,741	17,293
Other assets	763	948	1,626	1,559	1,844	2,028	2,231	2,454	2,700	2,969	3,266	3,364	3,465	3,569	3,676	3,787
Accounts payable	(1,378)	(2,116)	(2,565)	(2,347)	(3,500)	(3,339)	(3,673)	(3,972)	(4,296)	(4,556)	(4,820)	(4,985)	(5,155)	(5,329)	(5,508)	(5,690)
Accrued and other liabilities	(1,254)	(1,569)	(1,921)	(2,241)	(2,795)	(2,816)	(3,167)	(3,504)	(3,883)	(4,223)	(4,587)	(4,877)	(5,193)	(5,535)	(5,908)	(6,313)
Contract liabilities	(3,954)	(7,935)	(12,481)	(11,441)	(12,571)	(13,661)	(15,364)	(17,003)	(18,838)	(20,490)	(22,257)	(23,665)	(25,194)	(26,856)	(28,664)	(30,631)
Net Working Capital	2,123	(1,002)	(1,187)	1,577	(685)	(1,486)	(114)	(223)	(295)	(755)	(1,010)	(3,075)	(3,693)	(4,390)	(5,176)	(6,062)
Finance receivables	401	383	-	61	317	317.2	438.6114422	483.5422745	536.9620793	585.3709227	640.6688175	683.7950135	730.9963524	782.6765702	839.2796685	901.2939368
Deferred and other tax assets (liabilities)	433	858	1,406	1,500	1,642	1,620	1,966	2,248	2,409	2,627	2,826	3,005	3,199	3,410	3,639	3,889
Other assets	828	840	740	641	791	790	786	805	855	873	895	918	941	965	990	1,015
Goodwill	4,629	4,556	4,556	4,589	4,589	4,589	4,589	4,589	4,589	4,589	4,589	4,589	4,589	4,589	4,589	4,589
Other intangible assets	1,049	952	842	742	621	545	512	496	489	485	483	481	479	478	476	474
PP&E	2,470	2,983	3,944	5,493	6,847	8,168	9,771	11,758	14,190	17,147	20,603	24,755	29,745	35,740	42,943	51,599
Right Use of Assets	345	165	193	307	387	582	562	682	849	1,040	1,266	1,521	1,828	2,196	2,638	3,170
Contract liabilities	(1,640)	(3,226)	(5,270)	(4,826)	(5,625)	(5,782)	(6,503)	(7,197)	(7,973)	(8,673)	(9,420)	(10,016)	(10,664)	(11,367)	(12,132)	(12,965)
Accrued and other liabilities	(130)	(115)	(149)	(181)	(237)	(237)	(267)	(295)	(327)	(356)	(386)	(411)	(437)	(466)	(497)	(532)
Core Invested Capital	10,508	6,393	5,074	9,902	8,646	9,106	11,741	13,346	15,322	17,562	20,486	22,450	26,718	31,937	38,310	46,079
Non-Core Business																
Participation in Carl Zeiss	820.7	892.5	923.6	919.6	903	938.5184068	975.4338869	1013.801392	1053.678037	1095.123181	1138.19852	1182.968174	1229.498789	1277.859628	1328.122683	1380.362773
Loan to Carl Zeiss	0	124.4	364.4	929.2	1456.6	1365.4	1274.2	1122	969.8	817.6	665.4	513.2	361	208.8	147.8	86.8
Loan A Repayment						91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	0	0
Loan B Repayment								61	61	61	61	61	61	61	61	61
Non-Core Invested Capital	821	1,017	1,288	1,849	2,360	2,304	2,250	2,288	2,176	2,065	1,956	1,848	1,743	1,639	1,537	1,528
Total Invested Capital	11,329	7,410	6,362	11,751	11,006	11,410	13,991	15,634	17,498	19,627	22,441	24,299	28,461	33,576	39,847	47,608
Excess cash & Short-term Investments	7,072	7,218	6,953	6,459	12,176	11,944	13,433	14,866	16,470	17,915	19,459	20,690	22,027	23,481	25,061	26,780
Derivative financial assets (liabilities)	143	97	(244)	(126)	(17)	-14.2	-11.3	-8.5	-5.7	-2.8	0	0	0	0	0	0
Gross Financial Debt	4,678	4,584	4,260	4,632	4,688	6,182	6,953	7,694	8,524	9,272	10,071	10,708	11,401	12,153	12,971	13,861
Net Financial Debt	(2,537)	(2,731)	(2,448)	(1,702)	(7,471)	(5,748)	(6,469)	(7,163)	(7,940)	(8,640)	(9,388)	(9,982)	(10,627)	(11,328)	(12,090)	(12,920)
Total Shareholders' Equity	13,866	10,141	8,811	13,452	18,477	17,158	20,460	22,797	25,438	28,267	31,829	34,280	39,087	44,904	51,937	60,527
Total Funding	11,329	7,410	6,362	11,751	11,006	11,410	13,991	15,634	17,498	19,627	22,441	24,299	28,461	33,576	39,847	47,608
Check	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE



## Free Cash Flow

				- 1			Projectio	n Period		- 1		St	eady State	2	
Year ended December 31 (€ M)	2021 A	2022 A	2023 A	2024 A	2025 E	2026 F	2027 F	2028 F	2029 F	2030 F	2031 F	2032 F	2033 F	2034 F	2035
Core															
Core EBIT = NOPAT	5,763	5,559	7,646	7,389	8,751	10,152	11,583	13,228	14,825	16,587	18,162	19,907	21,840	23,986	26,36
Core and Recurrent NOPLAT	5,763	5,559	7,646	7,389	8,751	10,152	11,583	13,228	14,825	16,587	18,162	19,907	21,840	23,986	26,368
Depreciation, Impairment and loss (gain) on disposal of PPE	306	485	643	823	945	1,162	1,387	1,677	2,018	2,435	2,926	3,516	4,225	5,076	6,09
% of PPE	10%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%	122
Amortization and Impairments of Intangible Assets	133	144	139	134	123	118	115	94	62	109	109	109	109	109	10
Share-based Compensation Expense	118	69	135	173	163	173	207	233	244	265	282	300	320	342	36
% of Revenues	1%	62	62	12	12	62	1%	12	12	12	120	12	1%	12	B
Inventory Reserves	181	279	485	555 "	455 "	528 "	597 "	629 "	657 "	705 "	729 7	754 "	779 7	805 "	83
% of Total Inventory	33	4%	5.80	5.8	4.8	5.20	5.2	5.20	5.20	52	5%	5.81	5.2	5.80	52
Deferred Tax Expense (Benefit)	(420)	(564)	(134)	(145) "	(584)	(531) "	(452)	(586)	(750)	(772)	[846]	(927)	(1,017)	(1,117)	[1,22
z of EBT	-102	-32	-12	-2%	-62	-4.2	-328	-4.2	-4.2	-42	-4%	-4.2	-4%	-4.2	-4.2
Gain on Sale of Subsidiaries	(214)														
Proceeds from Sale of Subsidiaries	329														
Recurrent Gross Free Cash Flow	6,195	5,971	8,914	8,929	9,853	11,602	13,438	15,274	17,056	19,329	21,362	23,658	26,256	29,201	32,545
Change in Net Working Capital	(3,125)	(185)	2,764	(2,261)	(801)	1,372	(110)	(72)	(459)	(255)	(2,065)	(618)	(697)	(786)	(88)
Net Capex - PPE	818	1,446	2,192	2,177	2,266	2,765	3,375	4,109	4,974	5,891	7,079	8,505	10,220	12,280	14,75
Change in Other Intangible Assets	(97)	(110)	(101)	(120)	(76)	(33)	(16)	(8)	(4)	(2)	(2)	(2)	(2)	(2)	0
Change in Goodwill	(74)		33							- 1					
Change in Other Core Invested Capital	(1,332)	(1,986)	583	(228)	16	(307)	(257)	(376)	(253)	(276)	(121)	(103)	(77)	(43)	
Core and Recurrent Unlevered Free Cash Flows	10,005	6,805	3,444	9,361	8,448	7,805	10,446	11,621	12,798	13,970	16,471	15,875	16,812	17,752	18,676
% growth		-32%	-482	172%	-10%	-8%	34%	11%	16%	SS	18%	-4%	62	6%	5.2
Non-Core															
Non-Core result	154	99	164	168	173	180	187	194	202	210	218	226	235	245	25
Equity Method Investment Adjustment	(50)	15	4	4											
Gross Cash Flow	104	114	168	173	173	180	187	194	202	210	218				
Change in Participation in Carl Zeiss	72	31	(4)	(17)	36	37	38	40	41	43	45	47	48	50	5
Change in Loan to Carl Zeiss	124	240	565	527	(91)	(91)	(152)	(152)	(152)	(152)	(152)	(152)	(152)	(61)	(6
Total Unlevered Free Cash Flow	9,913	6,648	3,051	9,023	8,676	8,039	10,746	11,927	13,110	14,289	16,796	15,980	16,916	17,763	18,685
% growth		-3332	-54%	186%	-4%	-7%	34%	11%	16%	52	18%	-52	6%	5.81	52
Financial															
Financial Result	(33)	(34)	29	15	11	9	7	5	4	1		(1)	(4)	(6)	(
Gross Cash Flow	(33)	(34)	29	15	11	9	7	5	4	1	-	m	(4)	(6)	Ċ
Change in Net Financial Debt	(194)	282	747	(5,770)	1,724	(721)	(694)	(777)	(700)	(748)	(594)	(645)	(701)	(762)	(83
Transaction with Shareholders	(9,686)	(6,897)	(3,827)	(3,268)	(10,411)	(7,326)	(10,059)	(11,155)	(12,414)	(13,543)	(16,202)	(15,333)	(16,211)	(16,995)	(17,84)
Financing Parties Cash Flows	(9,913)	(6,648)	(3,051)	(9,023)	(8,676)	(8,039)	(10,746)	(11,927)	(13,110)	(14,289)	(16,796)	(15,980)	(16,916)	(17,763)	(18,685
Check Cash Flows	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
	THOE	IIIOE	IIIOE	IIIOE	IIIOE	IIIOE	IIIJE	IIIOE	IIIOE	THOE	THOE	IIIOE	IIIOE	HIJE	HIDE

## Discounted Cash Flow

Discounted Cash Flow (in millions €)					0	1	2	3	4	5	6	7	8	9	10	11	
	2020	2021	2022	2023	2024	2025 E	2026 F	2027 F	2028 F	2029 F	2030 F	2031 F	2032 F	2033 F	2034 F	2035 F	Terminal Value
Total Core Unlevered Free Cash Flows		10,005	6,805	3,444	9,361	8,448	7,805	10,446	11,621	12,798	13,970	16,471	15,875	16,812	17,752	18,676	492,628
Value of Operations	220,967	230,841	244,804	263,384	277,717	294,254	312,921	330,626	348,750	367,327	386,403	404,694	425,227	446,670	469,102	492,628	
Participation in Carl Zeiss	821	893	924	920	903	939	975	1,014	1,054	1,095	1,138	1,183	1,229	1,278	1,328	1,380	
Loan to Carl Zeiss	-	124	364	929	1,457	1,365	1,274	1,122	970	818	665	513	361	209	148	87	
Sum of Non-Core	821	1,017	1,288	1,849	2,360	2,304	2,250	2,136	2,023	1,913	1,804	1,696	1,590	1,487	1,476	1,467	
Total Fatancia Malus	221,788	231.858	246.092	265,233	280.077	296,558	315.170	332,762	350,773	369.240	388,206	406,390	426.817	448.156	470,578	494,095	
Total Enterprise Value					_												
Net Debt	(2,537)	(2,731)	(2,448)	(1,702)	(7,471)	(5,748)	(6,469)	(7,163)	(7,940)	(8,640)	(9,388)	(9,982)	(10,627)	(11,328)	(12,090)	(12,920)	
Equity Value	219,251	229,128	243,644	263,531	272,606	290,810	308,701	325,599	342,833	360,600	378,819	396,408	416,191	436,828	458,487	481,175	

Assumptions		
WACC		9.00%
Terminal growth rate		5.21%
Terminal Value		296,558
Enterprise Value Net Debt		(5,748)
Equity Value		290,810
# Shares outstanding in 31/12/2024 (million)		393.3
Per Share Value	€	739.41
21st May, 2025	€	659.80
Difference (Estimated vs. Actual)	€	79.61



# Sensitivity Analysis

		Terminal Growth (g)									
		2.21%	3.21%	4.21%	5.2%	6.21%	7.21%	8.21%			
w	12.00%	336.48	354.24	376.57	405.48	444.37	499.49	583.71			
VV	11.00%	379.80	404.23	435.84	478.38	538.68	630.80	788.96			
Α	10.00%	434.47	469.08	515.65	581.66	682.51	855.65	1222.23			
С	9.00%	505.51	556.53	628.86	739.35	929.04	1330.68	2749.13			
_	8.00%	601.42	680.73	801.89	1009.90	1450.31	3005.71	-10252.22			
C	7.00%	737.82	870.78	1099.07	1582.42	3289.46	-11260.97	-1761.10			
	6.00%	946.76	1197.52	1728.46	3603.55	-12379.31	-1944.22	-952.65			



# Sources

- ASML 2024 Annual Report. (2024). In <a href="https://ourbrand.asml.com/m/79d325b168e0fd7e/original/2024-Annual-Report-based-on-US-GAAP.pdf">https://ourbrand.asml.com/m/79d325b168e0fd7e/original/2024-Annual-Report-based-on-US-GAAP.pdf</a>.
- Koller, T., Goedhart, M., & Wessels, D. (2025, May 20). *Valuation: Measuring and Managing the Value of Companies, 8th edition*. <a href="https://www.Mckinsey.Com/Capabilities/Strategy-and-Corporate-Finance/Our-Insights/Valuation-Measuring-and-Managing-the-Value-of-Companies.">https://www.Mckinsey.Com/Capabilities/Strategy-and-Corporate-Finance/Our-Insights/Valuation-Measuring-and-Managing-the-Value-of-Companies.</a>
- McKinsey on Finance . (2011).

  Https://Www.Mckinsey.Com/Client\_service/Corporate\_finance/Latest\_thinking/Mckinsey\_on\_finance
  e/~/Media/1369E2B423894A069F485FD214C100DE.Ashx.
- Semiconductors Industry Profitability. (2025).
   <a href="https://csimarket.com/Industry/Industry\_Profitability.Php?Ind=1010.">https://csimarket.com/Industry/Industry\_Profitability.Php?Ind=1010.</a>
- World Economic Outlook (April 2025) GDP, current prices. (2025, April). <u>Https://Www.Imf.Org/External/Datamapper/NGDPD@WEO/WEOWORLD.</u>
- ASML. 2025. Agenda and Explanatory Notes 2025 AGM ASML.
   <a href="https://ourbrand.asml.com/m/70b35cd76fc2c029/original/Agenda-and-explanatory-notes-2025-AGM-ASML.pdf">https://ourbrand.asml.com/m/70b35cd76fc2c029/original/Agenda-and-explanatory-notes-2025-AGM-ASML.pdf</a>.
- Bloomberg. n.d. "Germany Government Bond Yields." https://www.bloomberg.com/markets/rates-bonds/government-bonds/germany.
- Conference Board. 2015. *Global Economic Outlook: Methodology*. <a href="https://www.conference-board.org/attach/geo-methodology-oct20151.pdf">https://www.conference-board.org/attach/geo-methodology-oct20151.pdf</a>.
- Conference Board. 2014. *Productivity and Potential Output before, during, and after the Great Recession*. <a href="https://www.conference-board.org/pdf\_free/workingpapers/EPWP1403.pdf">https://www.conference-board.org/pdf\_free/workingpapers/EPWP1403.pdf</a>.
- Deloitte. 2024. *Netherlands Highlights 2024*. https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Tax/dttl-tax-netherlandshighlights-2024.pdf.
- Euribor Rates. n.d. "Euribor Taxa 12 Meses." <a href="https://www.euribor-rates.eu/pt/taxas-euribor-actuais/4/euribor-taxa-12-meses/">https://www.euribor-rates.eu/pt/taxas-euribor-actuais/4/euribor-taxa-12-meses/</a>.
- Fitch Ratings. n.d. "ASML Holding NV Credit Rating." <a href="https://www.fitchratings.com/entity/asml-holding-nv-82470915">https://www.fitchratings.com/entity/asml-holding-nv-82470915</a>.
- FT. 2025. "ASML's Geopolitical Risk and Chip Strategy." <a href="https://www.ft.com/content/cdafc1df-7a35-4b42-b94d-b4f0132c0be1">https://www.ft.com/content/cdafc1df-7a35-4b42-b94d-b4f0132c0be1</a>.
- IMF. 2005. World Economic Outlook: Building Institutions. Washington, DC: International Monetary Fund.
  - https://www.elibrary.imf.org/downloadpdf/display/book/9781616359423/9781616359423.pdf.
- IMF. 2025a. World Economic Outlook (April 2025) GDP, Current Prices: CHN, JPN, KOR, NLD, SGP, TWN.
  - https://www.imf.org/external/datamapper/NGDPD@WEO/CHN/JPN/KOR/NLD/SGP/TWN.
- IMF. 2025b. *World Economic Outlook (April 2025) GDP, Current Prices: World and Regions*. https://www.imf.org/external/datamapper/NGDPD@WEO/WEOWORLD/AFQ/APQ/MEQ/EUQ.
- IMF. 2025c. *Inflation (CPI) World and Group Averages*. https://www.imf.org/external/datamapper/PCPIPCH@WEO/OEMDC/ADVEC/WEOWORLD.
- Idealista. n.d. "Histórico Anual Euribor." <a href="https://www.idealista.com/news/euribor/anual/historico/">https://www.idealista.com/news/euribor/anual/historico/</a>.



- Morningstar. 2025. ASML Investors Start Looking into 2026 Our Fair Value Estimate Is EUR 850. https://www.morningstar.com/company-reports/1274840-asml-investors-start-looking-into-2026-our-fair-value-estimate-is-eur-850.
- Optics.org. 2025. "ASML's Optics Capabilities Expand." <a href="https://optics.org/news/15/10/26">https://optics.org/news/15/10/26</a>.
- PwC. 2025. Netherlands Corporate Taxes on Income.
   <a href="https://taxsummaries.pwc.com/netherlands/corporate/taxes-on-corporate-income">https://taxsummaries.pwc.com/netherlands/corporate/taxes-on-corporate-income</a>.
- Statista. 2025. "Inflation Rate in China." <a href="https://www-statista-com.eu1.proxy.openathens.net/statistics/270338/inflation-rate-in-china/">https://www-statista-com.eu1.proxy.openathens.net/statistics/270338/inflation-rate-in-china/</a>.
- Tax@Hand. 2025. 2025 Tax Plan Package Adopted by Senate (Netherlands).
   <a href="https://www.taxathand.com/article/38325/Netherlands/2025/2025-tax-plan-package-adopted-by-Senate">https://www.taxathand.com/article/38325/Netherlands/2025/2025-tax-plan-package-adopted-by-Senate</a>.
- Trading Economics. 2025. "Netherlands Corporate Tax Rate." <a href="https://tradingeconomics.com/netherlands/corporate-tax-rate">https://tradingeconomics.com/netherlands/corporate-tax-rate</a>.
- Damodaran, Aswath. 2025. *Country Default Spreads and Risk Premiums*. https://pages.stern.nyu.edu/~adamodar/New Home Page/datafile/ctryprem.html.
- Companies Market Cap. 2025. "ASML Market Capitalization." <a href="https://companiesmarketcap.com/eur/asml/marketcap/">https://companiesmarketcap.com/eur/asml/marketcap/</a>.ASML. 2025. Agenda and Explanatory Notes 2025 AGM ASML. <a href="https://ourbrand.asml.com/m/70b35cd76fc2c029/original/Agenda-and-explanatory-notes-2025-AGM-ASML.pdf">https://ourbrand.asml.com/m/70b35cd76fc2c029/original/Agenda-and-explanatory-notes-2025-AGM-ASML.pdf</a>.
- Bloomberg. n.d. "Germany Government Bond Yields."
   <a href="https://www.bloomberg.com/markets/rates-bonds/government-bonds/germany">https://www.bloomberg.com/markets/rates-bonds/government-bonds/germany</a>.
- Conference Board. 2015. *Global Economic Outlook: Methodology*. <a href="https://www.conference-board.org/attach/geo-methodology-oct20151.pdf">https://www.conference-board.org/attach/geo-methodology-oct20151.pdf</a>.
- Conference Board. 2014. *Productivity and Potential Output before, during, and after the Great Recession*. https://www.conference-board.org/pdf free/workingpapers/EPWP1403.pdf.
- Deloitte. 2024. Netherlands Highlights 2024.
   <a href="https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Tax/dttl-tax-netherlandshighlights-2024.pdf">https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Tax/dttl-tax-netherlandshighlights-2024.pdf</a>.
- Euribor Rates. n.d. "Euribor Taxa 12 Meses." <a href="https://www.euribor-rates.eu/pt/taxas-euribor-actuais/4/euribor-taxa-12-meses/">https://www.euribor-rates.eu/pt/taxas-euribor-actuais/4/euribor-taxa-12-meses/</a>.
- Fitch Ratings. n.d. "ASML Holding NV Credit Rating." <a href="https://www.fitchratings.com/entity/asml-holding-nv-82470915">https://www.fitchratings.com/entity/asml-holding-nv-82470915</a>.
- FT. 2025. "ASML's Geopolitical Risk and Chip Strategy." <a href="https://www.ft.com/content/cdafc1df-7a35-4b42-b94d-b4f0132c0be1">https://www.ft.com/content/cdafc1df-7a35-4b42-b94d-b4f0132c0be1</a>.
- IMF. 2005. World Economic Outlook: Building Institutions. Washington, DC: International Monetary Fund.
  - https://www.elibrary.imf.org/downloadpdf/display/book/9781616359423/9781616359423.pdf.
- IMF. 2025a. World Economic Outlook (April 2025) GDP, Current Prices: CHN, JPN, KOR, NLD, SGP, TWN.
  - https://www.imf.org/external/datamapper/NGDPD@WEO/CHN/JPN/KOR/NLD/SGP/TWN.
- IMF. 2025b. World Economic Outlook (April 2025) GDP, Current Prices: World and Regions. https://www.imf.org/external/datamapper/NGDPD@WEO/WEOWORLD/AFQ/APQ/MEQ/EUQ.
- IMF. 2025c. *Inflation (CPI) World and Group Averages*. https://www.imf.org/external/datamapper/PCPIPCH@WEO/OEMDC/ADVEC/WEOWORLD.
- Idealista. n.d. "Histórico Anual Euribor." <a href="https://www.idealista.com/news/euribor/anual/historico/">https://www.idealista.com/news/euribor/anual/historico/</a>.

#### "ASML HOLDING N.V."

#### **COMPANY REPORT**



- Morningstar. 2025. *ASML Investors Start Looking into 2026 Our Fair Value Estimate Is EUR 850*. https://www.morningstar.com/company-reports/1274840-asml-investors-start-looking-into-2026-our-fair-value-estimate-is-eur-850.
- Optics.org. 2025. "ASML's Optics Capabilities Expand." https://optics.org/news/15/10/26.
- PwC. 2025. *Netherlands Corporate Taxes on Income*. https://taxsummaries.pwc.com/netherlands/corporate/taxes-on-corporate-income.
- Statista. 2025. "Inflation Rate in China." <a href="https://www-statista-com.eu1.proxy.openathens.net/statistics/270338/inflation-rate-in-china/">https://www-statista-com.eu1.proxy.openathens.net/statistics/270338/inflation-rate-in-china/</a>.
- Tax@Hand. 2025. 2025 Tax Plan Package Adopted by Senate (Netherlands).
   <a href="https://www.taxathand.com/article/38325/Netherlands/2025/2025-tax-plan-package-adopted-by-Senate">https://www.taxathand.com/article/38325/Netherlands/2025/2025-tax-plan-package-adopted-by-Senate</a>.
- Trading Economics. 2025. "Netherlands Corporate Tax Rate." <a href="https://tradingeconomics.com/netherlands/corporate-tax-rate">https://tradingeconomics.com/netherlands/corporate-tax-rate</a>.
- Damodaran, Aswath. 2025. *Country Default Spreads and Risk Premiums*. https://pages.stern.nyu.edu/~adamodar/New Home Page/datafile/ctryprem.html.
- Companies Market Cap. 2025. "ASML Market Capitalization." https://companiesmarketcap.com/eur/asml/marketcap/.



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