

LTS CHALLENGE 2025

Detailed Instructions - Phase 2

Congratulations! Your Semiconductor industry analysis and sub-segment selection in Phase 1 were well received by the investment committee of your fund. Based on your chosen sub-segment, your managers have now asked you to prepare a detailed **investment memorandum** for the company pre-assigned to that sub-segment, as follows:

- Fabless Chip Designers: **NVIDIA (NVDA-US)**
- Foundries: **TSMC (TSM-US)**
- Testing & Packaging: **Advantest (ADTTF-US)**
- Design Software, R&D tools, and IP: **Cadence (CDNS-US)**
- Manufacturing/Assembly Equipment and Ancillary Fab Services: **ASML (ASML-US)**

Your goal is to deliver a **buy-side style investment memo**, with a deep-dive analysis to present to the fund's investment committee, **recommending a long or short equity position**. We suggest that the investment analysis of the company covers the following key areas:

Deep Dive into the Company and Investment Thesis

- a. Does the company's business model present barriers-to-entry ("moats")? How can the company develop or maintain durable competitive advantages?
- b. What are the main revenue drivers? What are the main segments/geographies that are generating revenue growth and/or margin expansion?
- c. Analysis of the company profitability and returns. What is their current margin profile? How and why is it changing (or not)?
- d. What is the company's cash generation profile (e.g. Working Capital dynamics, FCF conversion, capex needs etc.)?
- e. How do you evaluate their capital allocation decisions? Will the company be able to continue to invest at high return rates (e.g. M&A opportunities, incremental ROIC, long-term margin profile etc.)?
- f. How do you evaluate their management/board? Do they have the required capabilities to create value? Are their incentives aligned with shareholders'?
- g. Is the company overvalued or undervalued (e.g., multiples analysis, Discounted Cash Flow, etc.)? What is the expected return in 5 years (e.g., TSR – Total Shareholder Return, IRR – Internal Rate of Return etc.)? Why should the fund go long or short now?
- h. What are the key drivers of your investment thesis and are there any catalysts that may trigger market correction?
- i. What are the main risks to your thesis?

Recommendations

- a. Summarize your analysis with a **clear investment recommendation (Long or Short)** and the rationale behind it.
- b. Discuss the potential return profile under different scenarios (e.g., base, upside, downside) and explain how this supports your recommendation.
- c. Feel free to make recommendations to management (e.g., what are the main areas that need change, how to implement them, potential strategic options, etc.).

Your investment memo should be concise, analytical, and well-structured, with a clear narrative that articulates your recommendation and highlights the expected return. While you are encouraged to address the key areas listed above, **you are not required to follow them rigidly – feel free to adapt the structure to best support your thesis.**

Submission Instructions: The presentation should be prepared in English, contain up to 15 pages of content (+ cover), and be sent to the email challenge@lts-investments.com by 11:59 pm (BRT) on June 8th, 2025, with the subject "Phase 2 Submission - [Group Name]". You may include an appendix at the end of the presentation with an unlimited number of pages. This section will not be evaluated, but it can be referenced during the Q&A session if your group is selected for the next stage.

Suggested sources: investor relations website, annual report, earnings call, investor day, field research and conversation with industry experts/executives.

Good luck!