Investment scenarios comparison

Wroclaw, 21/05/2024

Considered Investment opportunities

Scenario 1:

Building an extension of a factory building and increase manufacturing activities.

Scenario 2:

Building a digital product and investing in marketing.

Assumptions for Scenario 1

Project: to build a factory, including buildings and machine tools required for production.

Increase in sales: it is planned that after the implementation of the project, the sales volumes will increase by 50% from the current ones and should continue to increase by 10% annually.

Cost: an additional 10 people with an average salary of the company will be needed to service the new production capacity.

Costs: marketing budgets would need to be further adjusted to maintain projected sales growth.

Duration of the project: 2 years.

Assumptions for Scenario 2

Project: will carry out active marketing activities and develop an electronic product.

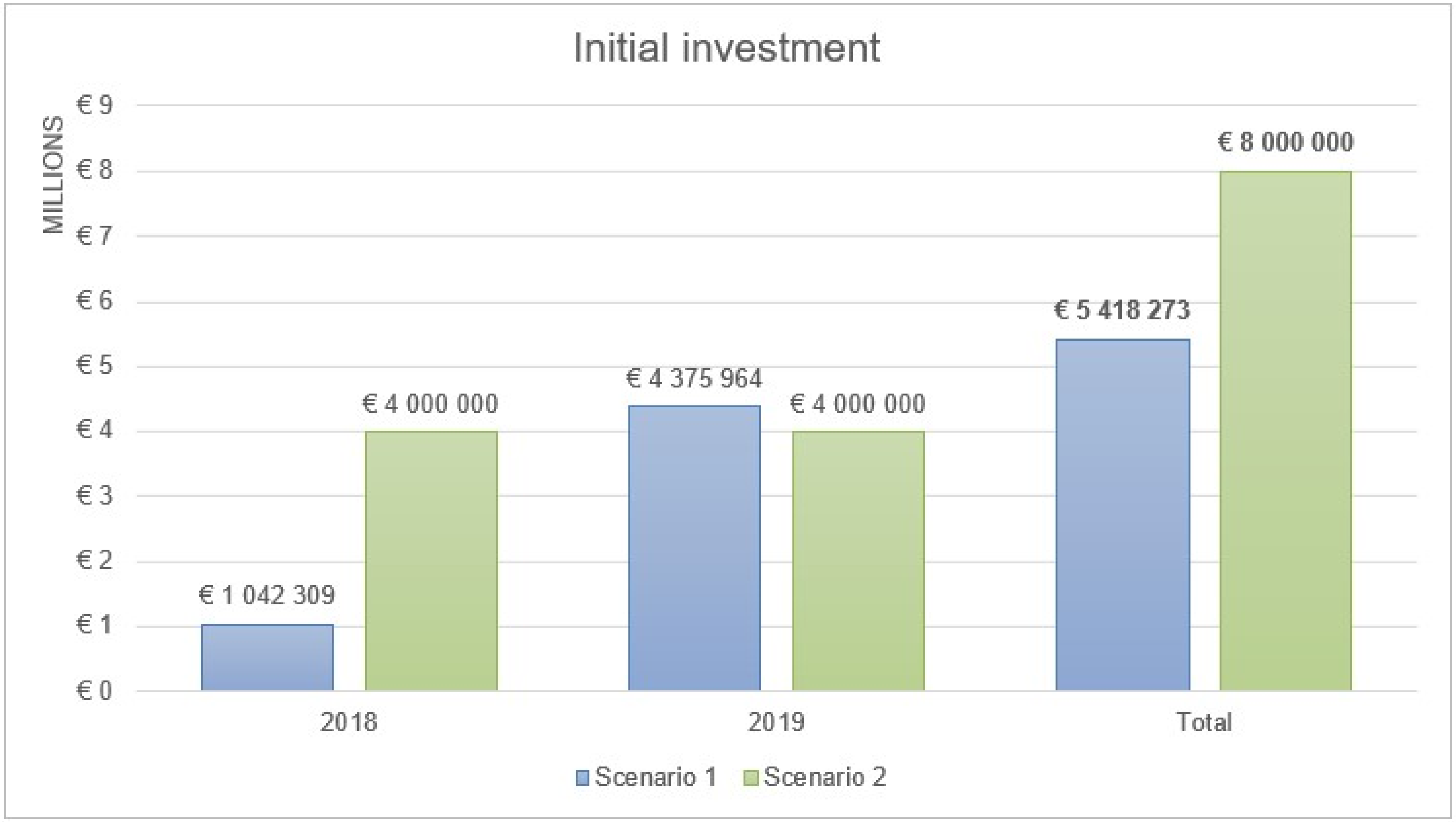
Increase in sales: sales are expected to grow by 30% during the campaign every year. In subsequent periods, growth is expected to fall to 15%.

Cost: the provision and development of services will require the hiring of 10 people with 2x the average salary of the company starting in the first year. After the implementation of the campaign, it is planned to receive 5 people each year in the following periods.

Costs: after campaign end, advertising budgets are expected to fall to € 1 million per year.

Duration of the project: 2 years.

Initial investment value

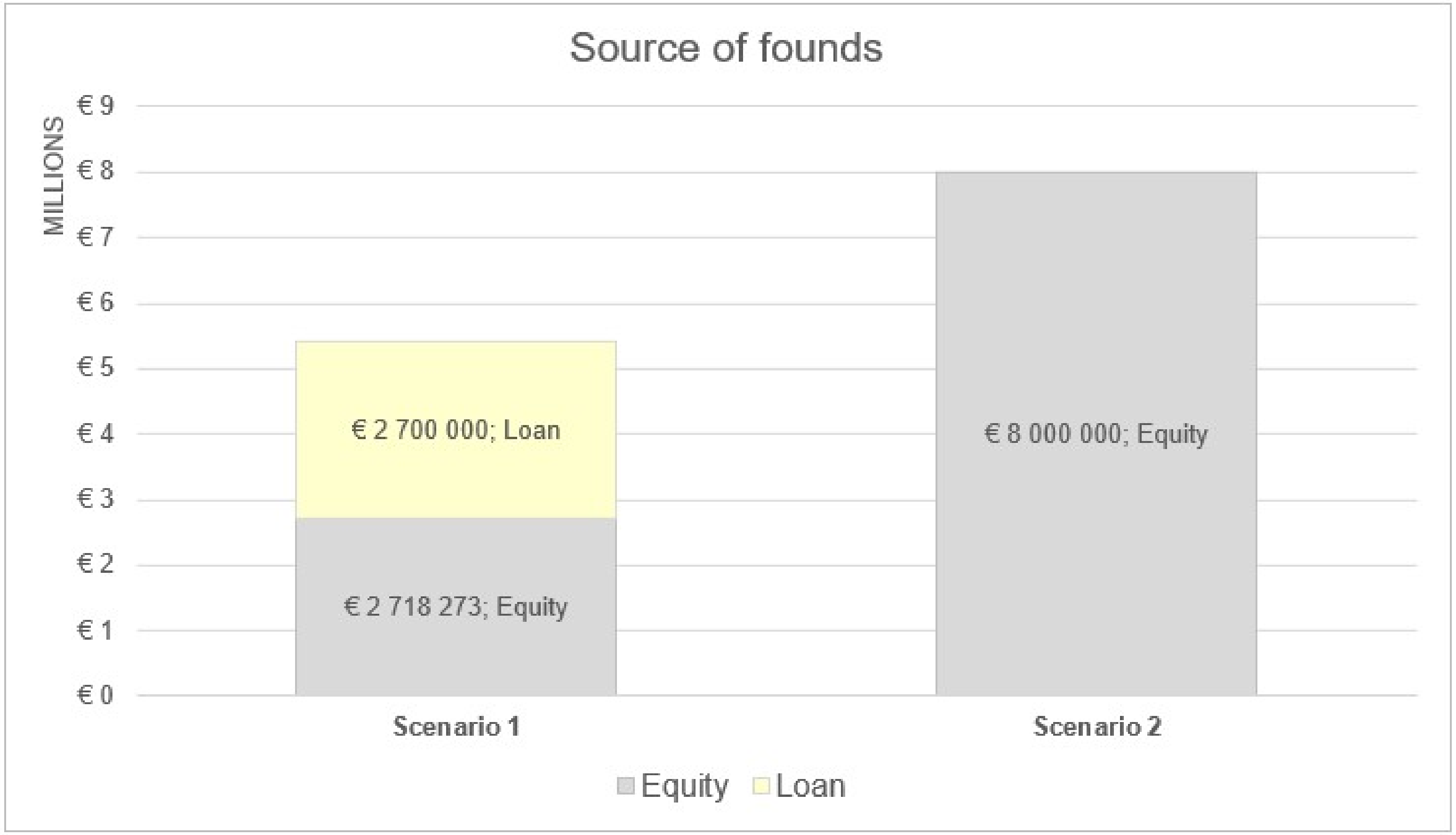


Scenario 1 requires an initial investment of **€5,418,273**

Scenario 2 requires a higher initial investment of **€8,000,000**

Cash outflows for investments are projected in parts for the first two years of the project.

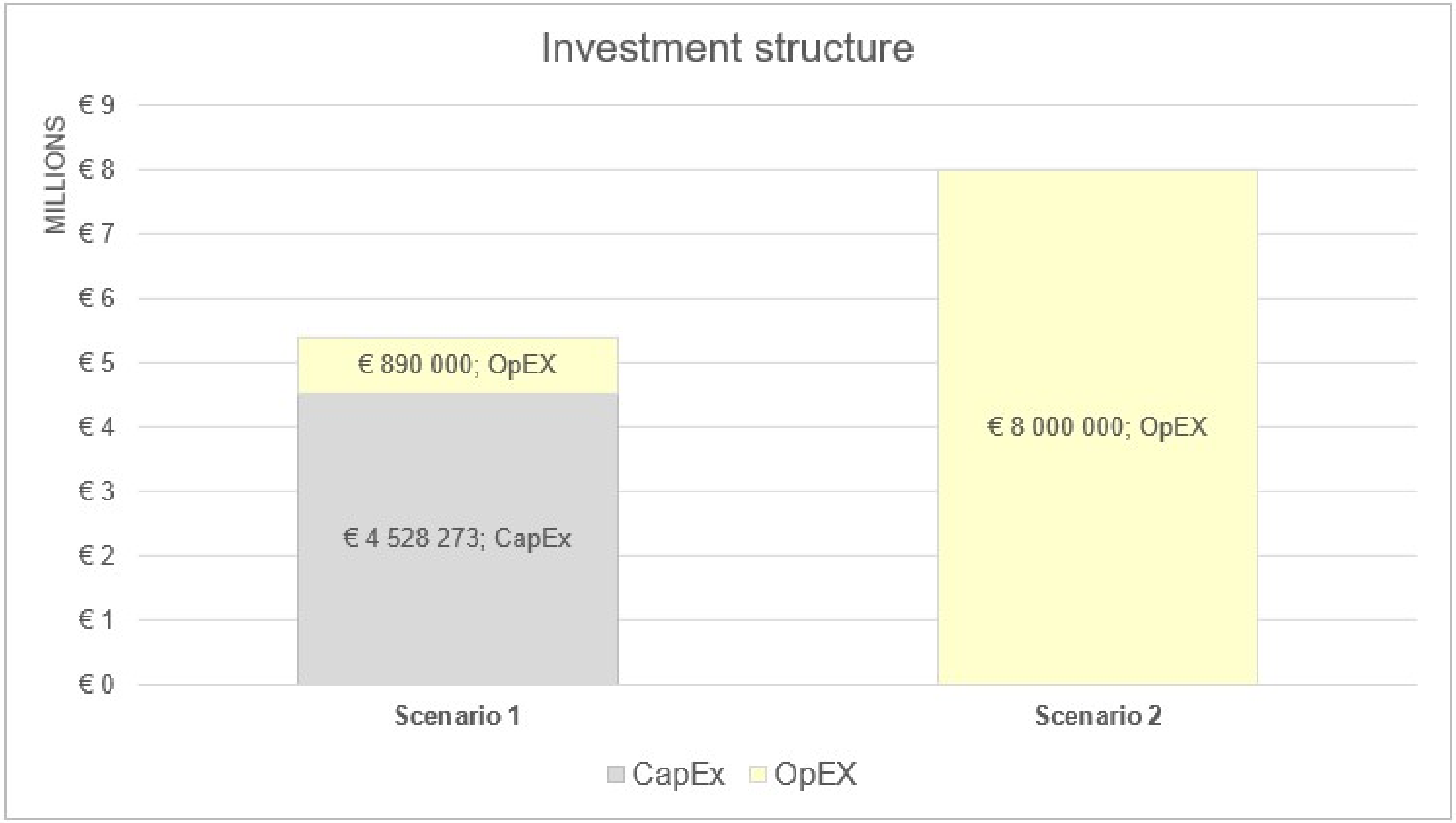
Source of founds



Scenario 1 investment will be funded by €2,718,273 in equity and €2,700,000 in loans

Scenario 2 investment will be fully funded by equity, with no loans involved.

Investment structure



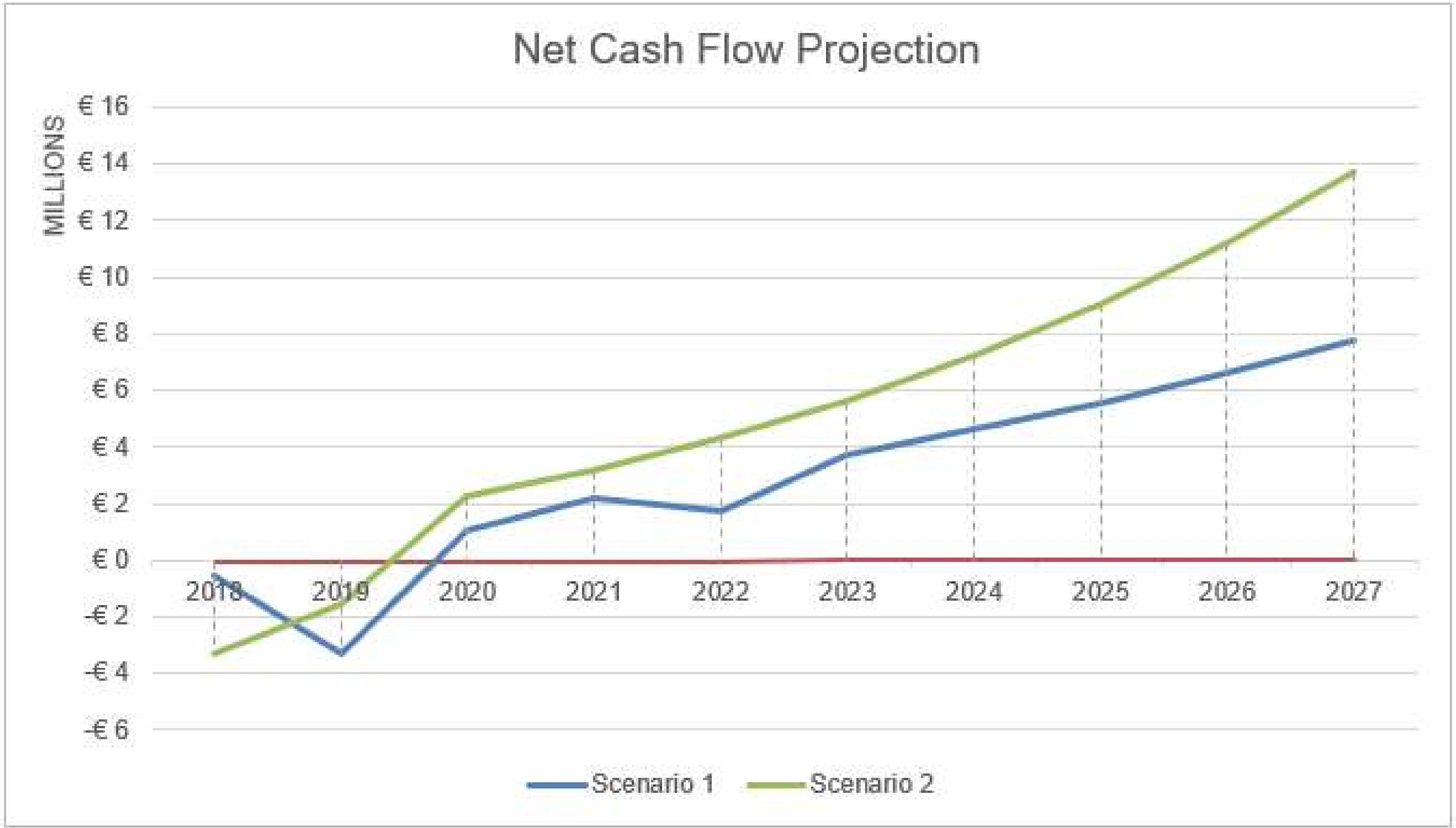
Scenario 1 focuses on capital expenditures (CapEx) of €4,528,273 and operational expenditures (OpEx) of €890,000.

Scenario 2 consists entirely of operational expenditures (OpEx) amounting to €8,000,000.

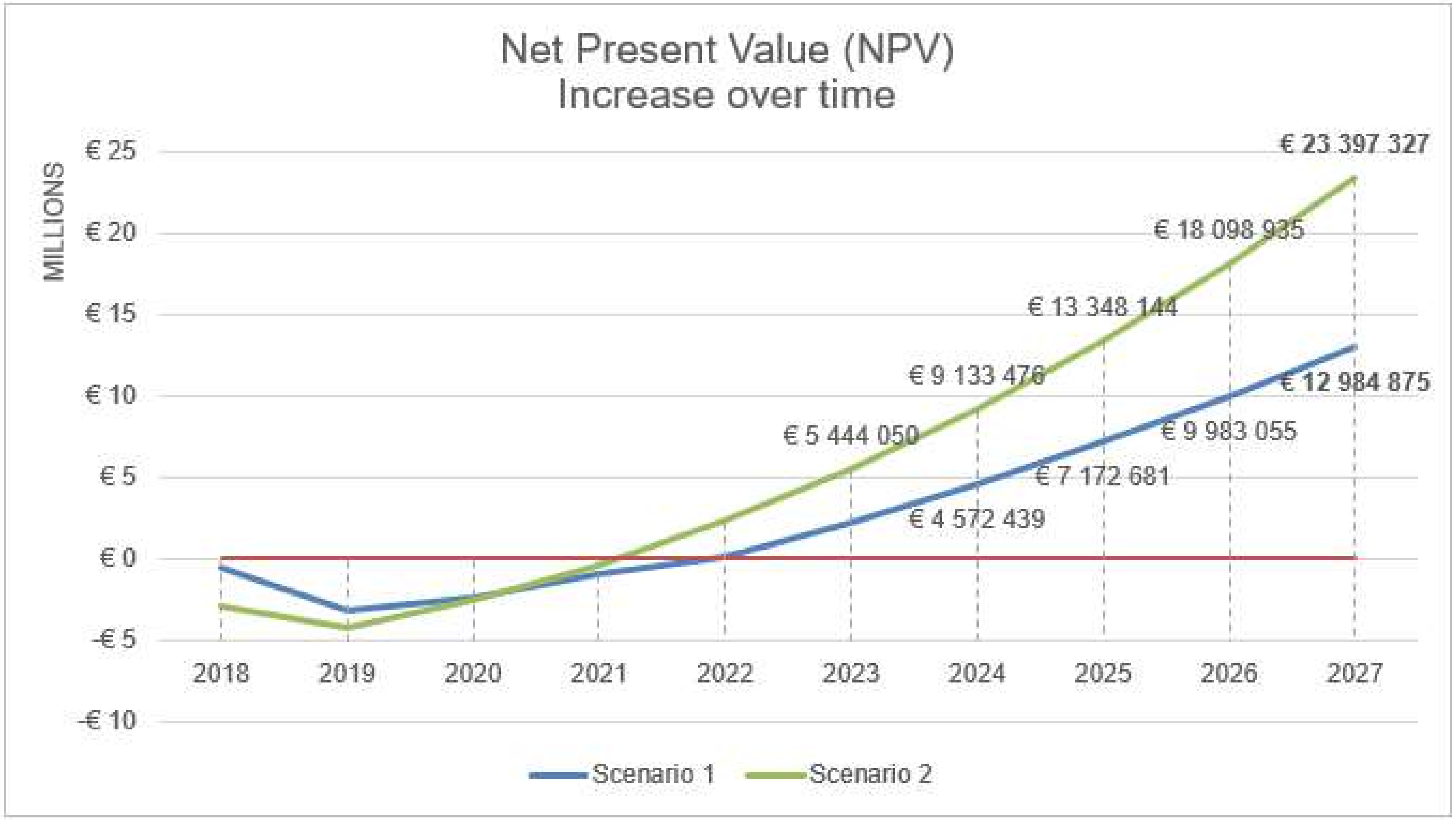
Additional assumptions for both scenarios

- **Current Sales:** € 4,414,253.64 (according to the Income Statement for 2017)
- **Average Comapny Salary:** € 30,000 per year
- **Discount Rate (Expected Rate of Return):** 10%
- **Projected Inflation Rate:** 2% per year (for operational expences after implementation of the project, the projected sales growth includes inflation)
- **Duration for Evaluation:** 10 years
- **Increasing stakeholders equity will be required to cover "own founds" for the investment** (the financial statement of the Company suggests that the Company does not have enough cash to cover "own founds" part of the investment)

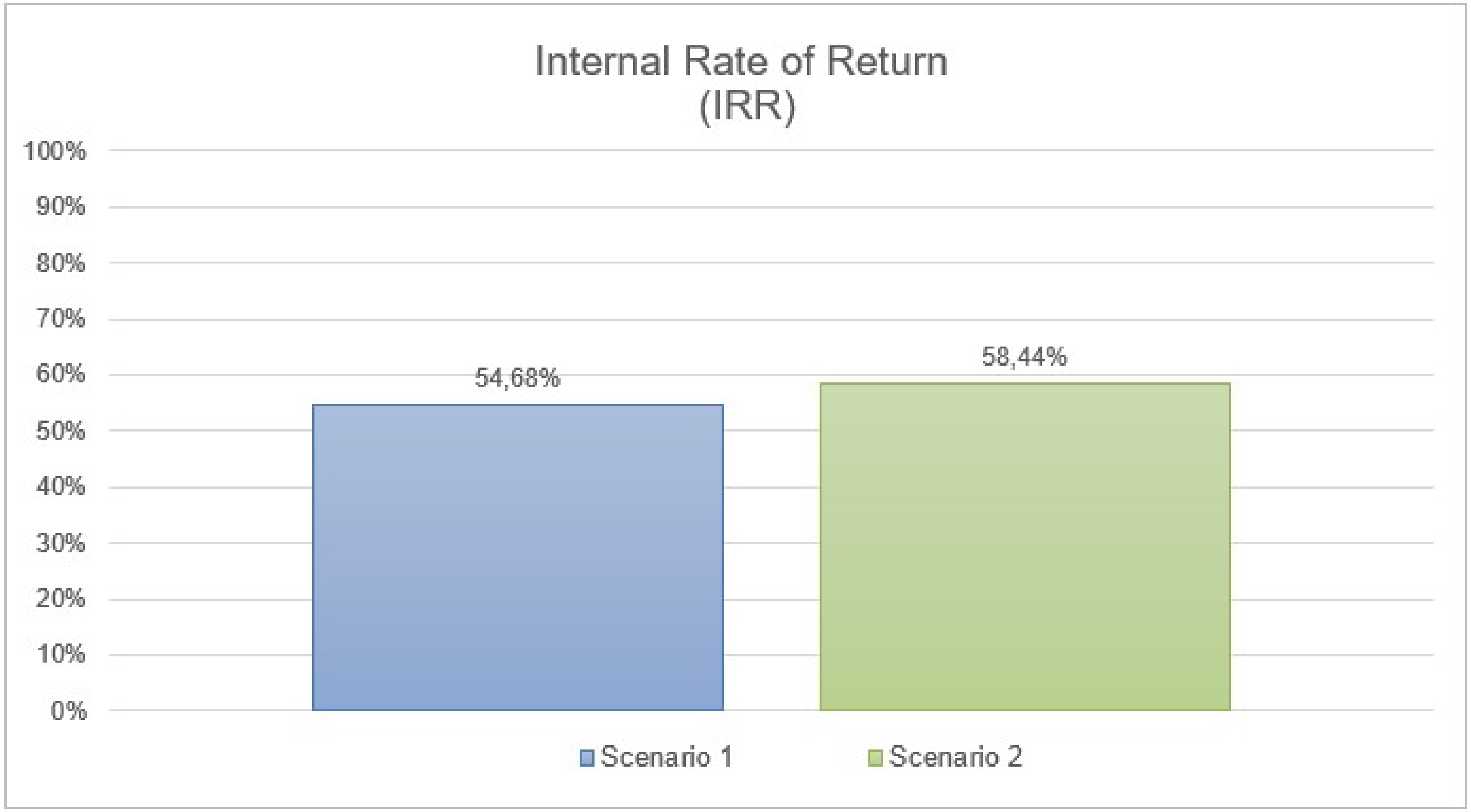
Financial analysis - Cash Flow Projection



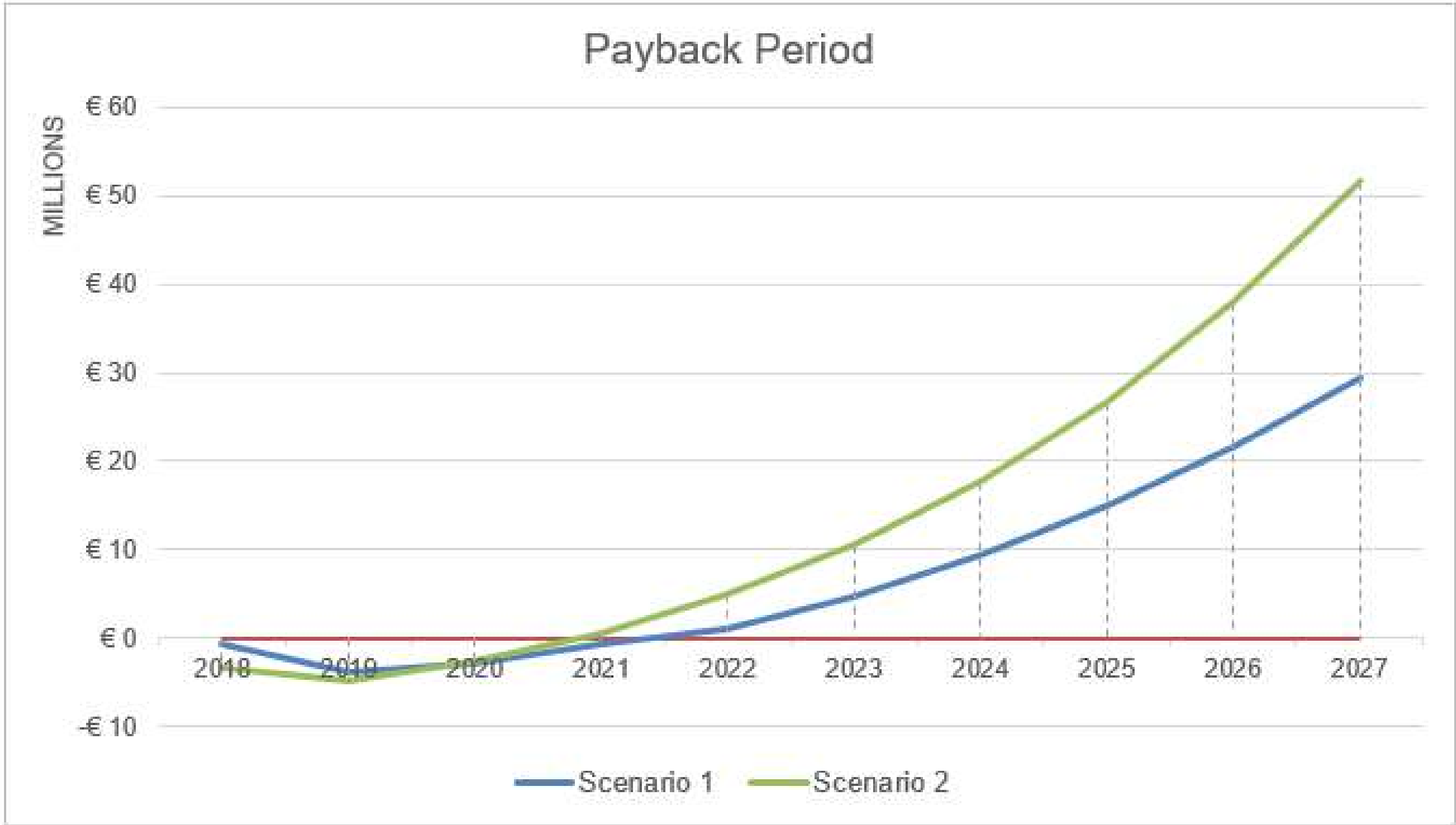
Financial analysis – Net Present Value (NPV)



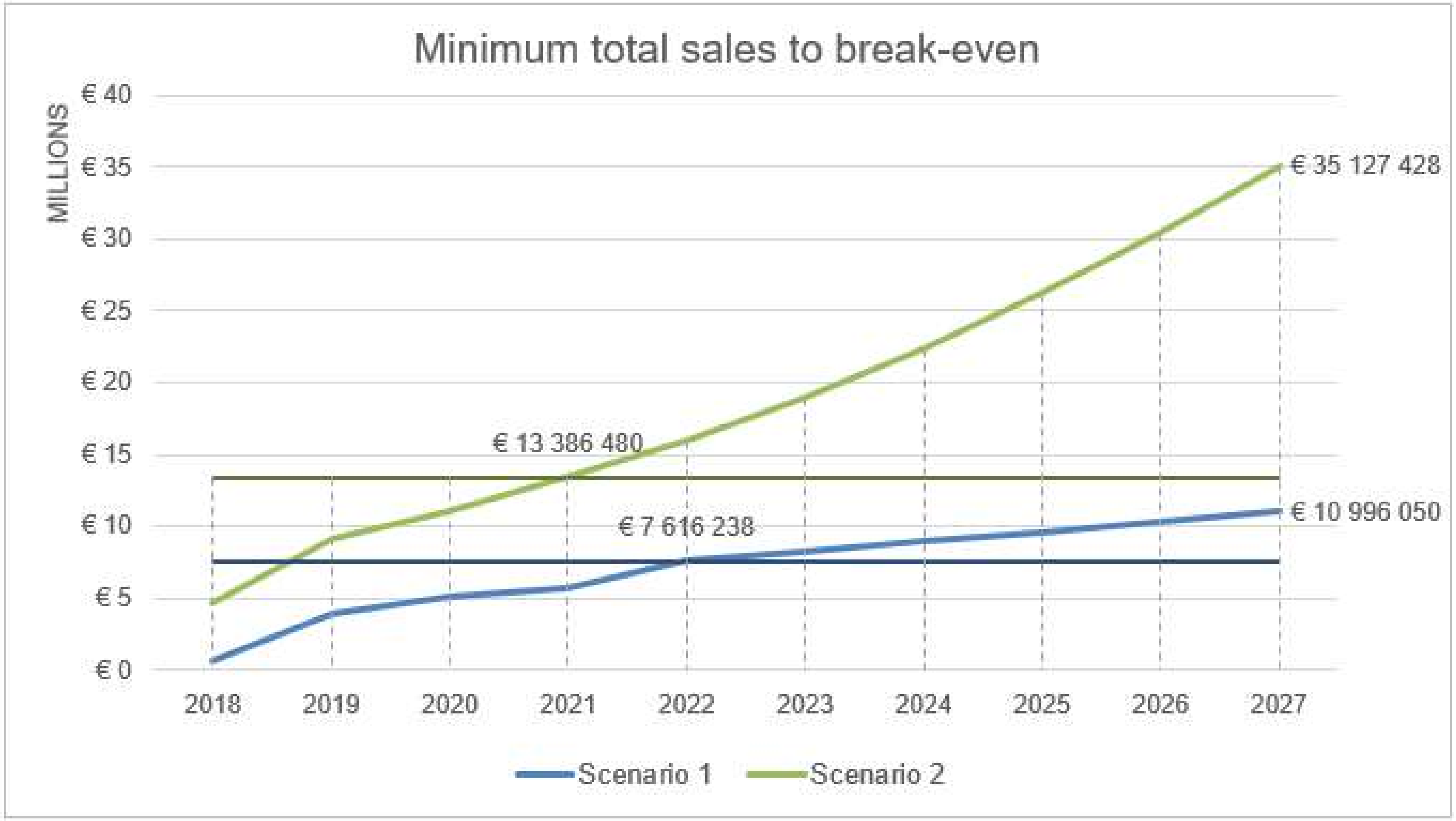
Financial analysis – Internal Rate of Return (IRR)



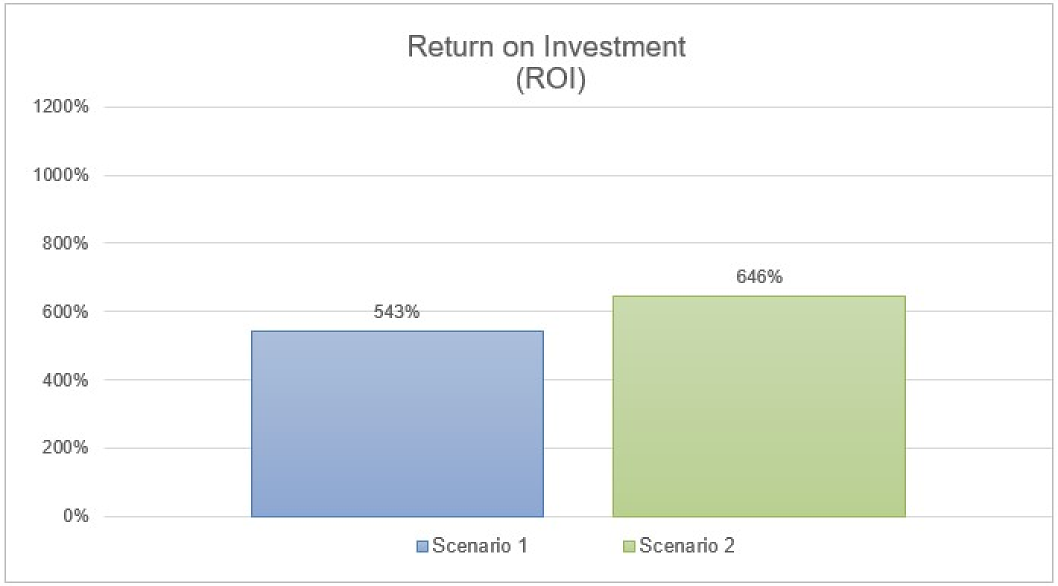
Financial analysis – Payback Period

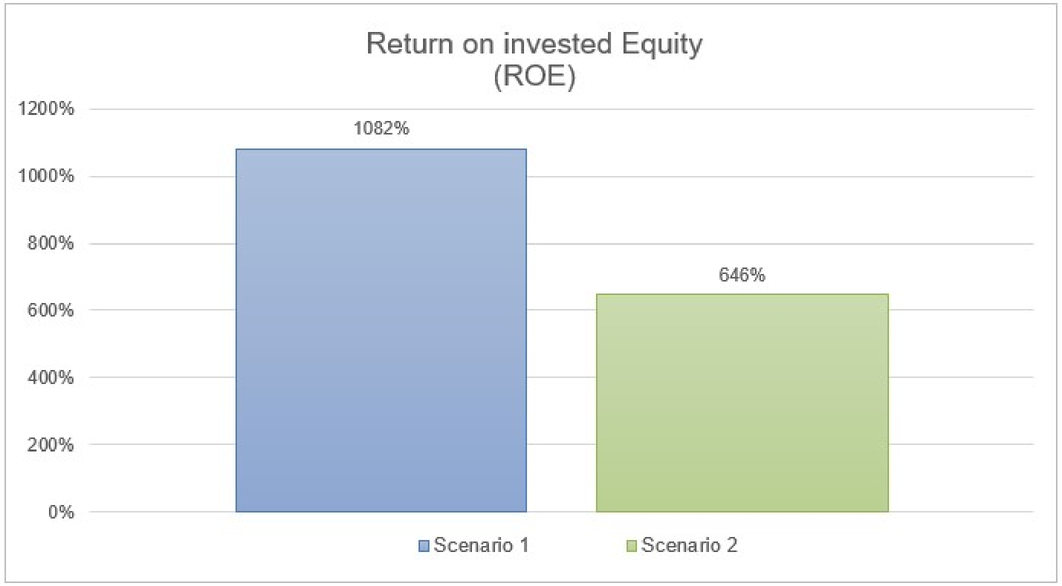


Financial analysis – Break-even Point

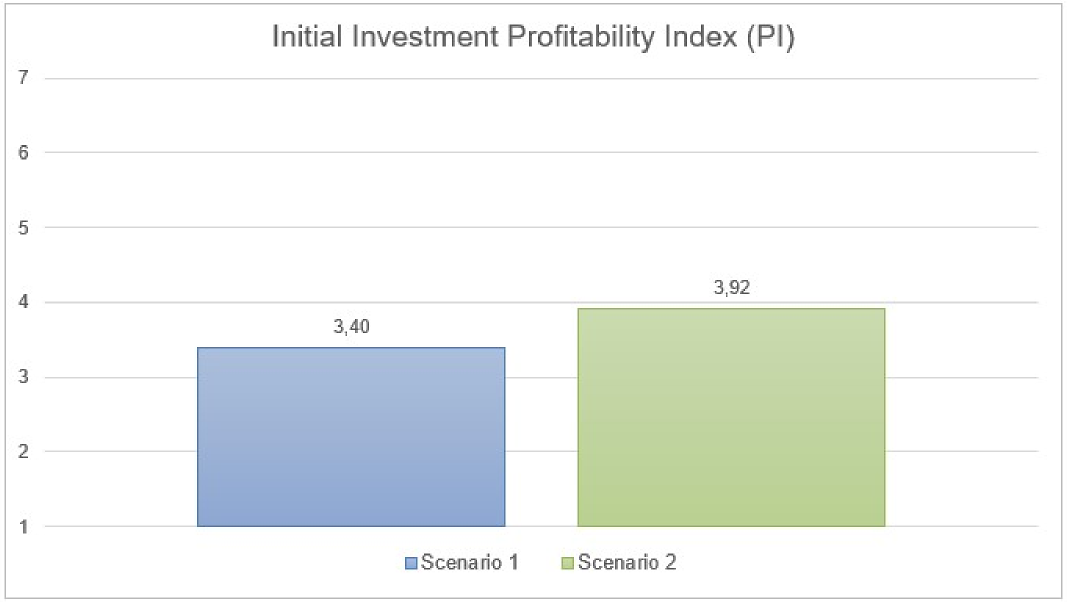


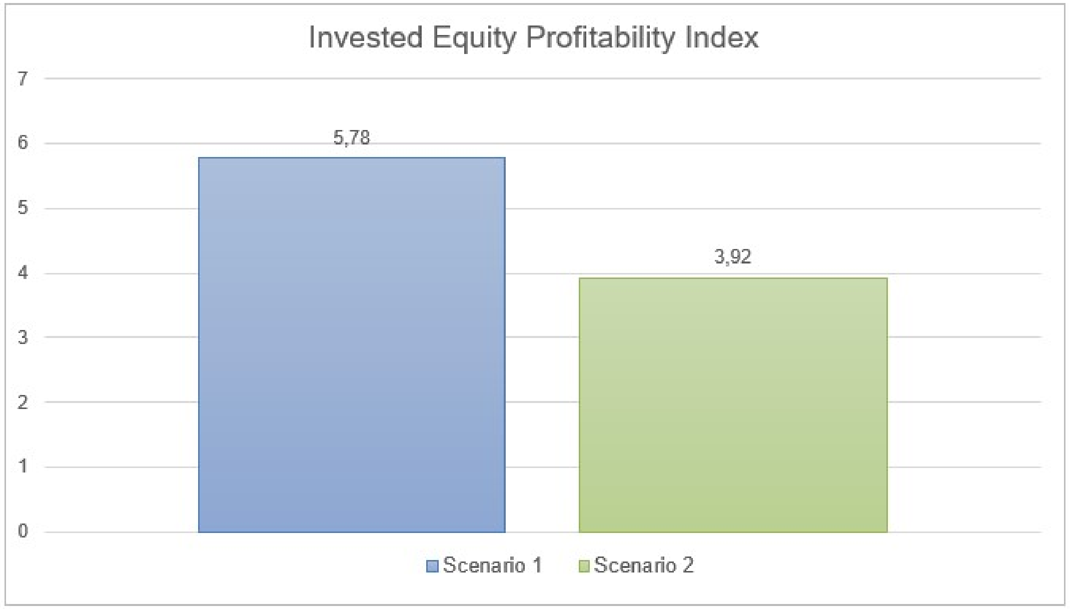
Financial analysis – ROI and ROE





Financial analysis – Profitability Index (PI)





Financial analysis – Opportunity costs

Risk Analysis

Scenario 1 Risks:

- The necessity to secure cash for loan repayment in the first two years (€540,000 in 2018 and €590,000 in 2019), with no additional sales to cover these payments.
- Potential failure to repay loans could result in bankruptcy.
- In the event of project failure, asset liquidation (building and equipment) may mitigate losses.

Scenario 2 Risks:

Investment is purely in operational costs, with no tangible assets to recover losses if the project fails.
Higher inherent risk since losses cannot be mitigated by asset sales.

Conclusions

From a financial standpoint and Company perspective:

- Scenario 2 predicts higher IRR, PI and ROI, indicating higher profitability of the investment, additionally higher NPV and a shorter payback period, indicate more value added and quicker investment recovery.

- Scenario 2 is fully equity-funded, eliminating loan-related risks such as interest repayments and potential bankruptcy from loan defaults. However, it carries a higher risk due to the lack of tangible assets to recover in case of project failure.

- Scenario 1, although presenting lower financial metrics in terms of the total investment, offers the security of having tangible assets that can potentially be liquidated to mitigate losses.

Conclusions

From the stakeholders' point of view:

- Scenario 1 requires a significantly lower equity investment (€2,718,273) compared to Scenario 2 (€8,000,000),

- Scenario 1 provides a significantly higher return on invested equity (1082%) compared to Scenario 2 (646%) as well as profitability: €5.78 for every euro of invested equity, comparing to € 3.92 from Scenario 2,

- the use of borrowed capital (debt) in addition to equity to finance the investment (leverage) significantly increases the return on equity (ROE), stakeholders are investing less of their own money and can still earn returns on the total investment.

Recommendation

Considering, that the fundings for the initial investment would have to be supported by increasing stakeholder's equity, the stakeholders perspective will play significant role in assessment of both scenarios.

Stakeholders are primarily interested in the return on their equity investment. From the stakeholders' perspectives, Scenario 1 provides a more attractive return on invested equity and higher profitability. Additionally, Scenario 1 enables to mitigate potential losses through asset liquidation in case of project failure, since the investment focuses on capital rather than operational expenditures.

The use of borrowed capital in addition to equity to finance the investment (leverage) significantly increases the return on equity (ROE) in Scenario 1. Stakeholders are investing less of their own money and can still earn returns on the total investment.

Leverage, on the other hand, increases financial risk for the Company, as it must meet debt repayments regardless of its financial performance. The company should ensure it can manage the loan repayments in the initial years to mitigate financial risks. Securing more favourable loan terms may further reduce risks associated with Scenario 1.

Thank you

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