

Member of DJSI World, DJSI Emerging Markets

Company Information

Country: Taiwan

Index market cap*: 6,878

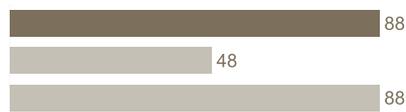
*USD millions

Source: S&P Global BMI, 30 August 2019

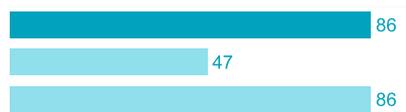
2019 Assessment Results

Source: SAM CSA, 13 September 2019

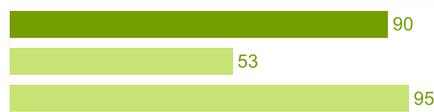
Total Scores



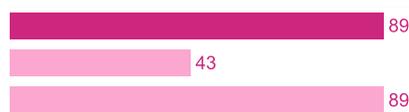
Economic



Environmental



Social



■ ASE Technology Holding Co Ltd
 ■ Industry Average Score
 ■ Industry Best Score

Industry Overview	Maximum Score	Average Score
Total	88	48
Economic Dimension	86	47
Environmental Dimension	95	53
Social Dimension	89	43

DJSI World	Maximum Score	Average Score
Total	88	83
Economic Dimension	86	81
Environmental Dimension	91	87
Social Dimension	89	82

ASE Technology Holding Co Ltd leads the Semiconductors & Semiconductor Equipment industry in SAM Corporate Sustainability Assessment based on its Total Sustainability Score in 2019. This report provides a broad overview of the performance of the Semiconductors & Semiconductor Equipment industry and the relative positioning of ASE Technology Holding Co Ltd at the dimension and criteria level.

Industry Drivers

The emerging drivers of the semiconductor industry go far beyond the traditional PC market to now include the Internet of Things, Artificial Intelligence, automotive applications, 5G and high-performance computing. Cybersecurity is increasing in importance as a strategic priority, as security should be included by design during chip R&D. The rate at which the number of transistors on a chip doubles (Moore's Law) is slowing as integrated circuits become smaller so the semiconductor industry must investigate new architectures, materials and packaging to go beyond current scaling and performance constraints while also addressing the demand for low energy-consumption products. To sustain a rapid pace of innovation, the industry will need to increase R&D investment, in turn necessitating talent development while also attracting and retaining a skilled workforce. The industry must continue to improve its usage of: ultra-pure water, sourcing of conflict minerals, energy and waste management, pollution prevention, and must also increase promotion of projects to substitute hazardous materials.

Company Performance

RobecoSAM has selected the most relevant criteria in each sustainability dimension based on their weight in the assessment and their current or expected significance for the industry. The spider chart below visualizes the performance of the industry leader against the best score achieved in each criterion and the median industry score.



— Industry best score - - - - Industry average score ■ ASE Technology Holding Co Ltd

Corporate Sustainability Assessment

The SAM Corporate Sustainability Assessment (CSA) is a comprehensive annual evaluation of companies' sustainability practices and performance. Every March, RobecoSAM extends invitations to over 3,500 of the largest, listed companies globally to participate in the assessment by completing an in-depth questionnaire. Assessment results are published in September, following the analysis of companies' submissions complemented by additional research performed by RobecoSAM.

The CSA is one of the longest standing ESG rating methodologies worldwide, dating back to 1999. It assesses companies on the basis of 80 – 120 industry-specific questions across 61 industries focusing on financially material economic, environmental, and social factors that are relevant to companies' success, but that are under-researched in conventional financial analysis. Every year, the CSA undergoes rigorous methodological review in order to ensure that the most current material sustainability topics, as well as emerging, long-term sustainability themes often of interest to investors are reflected, and companies are challenged on topics that lack disclosure today. The ESG Ratings derived from the CSA are used for the annual rebalancing of the iconic Dow Jones Sustainability Indices (DJSI), as well as the S&P Dow Jones Indices (S&P DJI) ESG Index family and are made available to investors, researchers, and non-governmental organizations through the S&P DJI and Bloomberg data platforms. The results of the CSA are also used for the creation of the SAM Sustainability Yearbook, one of the most comprehensive annual publications on corporate sustainability. Selected ratings are made available to the general public through the Sustainability Yearbook website: <http://yearbook.robecosam.com>

Additional Resources

For more information on the CSA and a complete list of all Dow Jones Sustainability Indices constituents visit www.robecosam.com/CSA

Assessed companies can access their own results and benchmark themselves against their peers directly through the online assessment portal.

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