TSMC Annual Report 2024

Printed on March 12, 2025
TSE: 2330
NYSE: TSM

Taiwan Stock Exchange Market Observation Post System: https://mops.twse.com.tw
TSMC annual report is available at https://investor.tsmc.com/english/annual-reports

TSMC 1041
TSMC v. Marlin, IPR2026-00220

TSMC
Vision, Mission & Core Values

TSMC's Vision

Our vision is to be the most advanced and largest technology and foundry services provider to fabless companies and IDMs, and in partnership with them, to forge a powerful competitive force in the semiconductor industry. To realize our vision, we must have a trinity of strengths:

1. Be a technology leader, competitive with the leading IDMs
2. Be the manufacturing leader
3. Be the most reputable, service-oriented and maximum-total-benefits silicon foundry

TSMC's Mission

Our mission is to be the trusted technology and capacity provider of the global logic IC industry for years to come.

TSMC's Core Values

Integrity

Integrity is our most basic and most important core value. We tell the truth. We believe the record of our accomplishments is the best proof of our merit. Hence, we do not brag. We do not make commitments lightly. Once we make a commitment, we devote ourselves completely to meeting that commitment. We compete to our fullest within the law, but we do not slander our competitors and we respect the intellectual property rights of others. With vendors, we maintain an objective, consistent, and impartial attitude. We do not tolerate any form of corrupt behavior or politicking. When selecting new employees, we place emphasis on the candidates' qualifications and character, not connections or access.

Commitment

TSMC is committed to the welfare of customers, suppliers, employees, shareholders, and society. These stakeholders all contribute to TSMC's success, and TSMC is dedicated to serving their best interests. In return, TSMC hopes all these stakeholders will make a mutual commitment to the Company.

Innovation

Innovation is the wellspring of TSMC's growth, and is a part of all aspects of our business, from strategic planning, marketing and management, to technology and manufacturing. At TSMC, innovation means more than new ideas, it means putting ideas into practice.

Customer Trust

At TSMC, customers come first. Their success is our success, and we value their ability to compete as we value our own. We strive to build deep and enduring relationships with our customers, who trust and rely on us to be part of their success over the long term.

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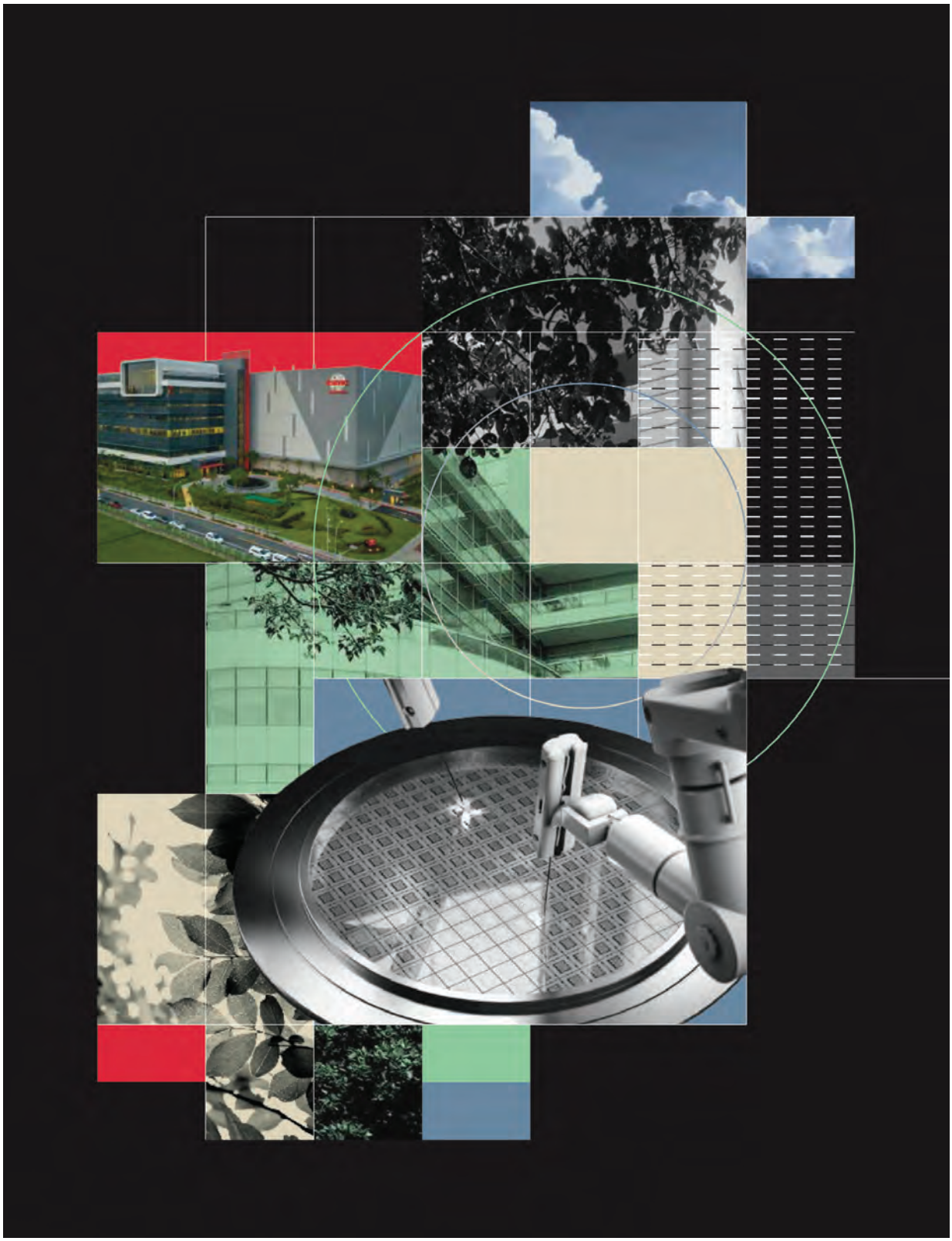

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Letter to Shareholders

TSMC's Mission

Our mission is to be the trusted technology and capacity provider of the global logic IC industry for years to come.

Dear Shareholders,

2024 was an outstanding year for TSMC. Supported by our strong technology leadership and broad customer base, we observed robust AI-related demand from our customers throughout 2024. Other applications experienced only a very mild recovery, as macroeconomic conditions continued to weigh on consumer sentiment. Fueled by strong demand for our leading-edge logic and advanced packaging technologies, TSMC's revenue increased 30% year-over-year in US dollar terms, outperforming the Foundry industry's 6% growth, and both our revenue and EPS reached record highs.

We continued to invest in R&D and technology development to support our customers' growth. In its second year of volume ramp, demand for our industry-leading 3-nanometer technology continued to be robust, driven by smartphone and High Performance Computing (HPC) applications, and represented 18% of our total wafer revenue in 2024.

Our 2-nanometer technology leads the industry in addressing our customers' insatiable need for energy-efficient computing, and almost all the IC innovators are working with TSMC. Our N2 process technology is on track for volume production in the second half of 2025. We also introduced A16 as a separate offering that features an innovative, best-in-class backside power delivery solution best-suited for High Performance Computing (HPC) products. Volume production of A16 is scheduled for the second half of 2026.

We are also developing advanced packaging and 3D chip stacking technologies, including CoWoS®, InFO, TSMC-SoIC® (System on Integrated Chips) and silicon photonics, to enable large-scale interconnectivity for lower power consumption at affordable costs to support our customers' needs.

On mature nodes, we are working closely with strategic customers to develop specialty technology solutions that meet their specific requirement. These partnerships enable us to create technology differentiation and provide long-lasting value to customers.

We believe N3, N2, A16 and their derivatives, our specialty technologies, and our advanced packaging and chip stacking solutions, will further extend our technology leadership position, and enable TSMC to capture the growth opportunities well into the future.

Our customers look to TSMC not only for the most advanced technologies, but also for the most efficient and cost-effective manufacturing, at scale. To address the structural increase in the long-term market demand profile, TSMC is working closely with our customers to plan our capacity, and investing in leading edge, specialty and advanced packaging technologies to support their demand.

We employ a disciplined and thorough capacity planning system to evaluate and judge the structural increase in the long-term market demand profile, to determine the appropriate capacity to build.

At the same time, we are committed to earning a sustainable and healthy return that enables us to continue to invest to support our customers' growth, while delivering profitable growth for our shareholders.

Part of this strategy includes expanding our global manufacturing footprint based on our customers' needs, as they value geographic flexibility, and a necessary level of government support. This is to maximize the value for our shareholders.

We have made significant progress in our overseas expansion in 2024. In Arizona, our first fab entered high-volume production utilizing N4 process technology in 4Q'24, earlier than scheduled. The yields are comparable to our fabs in Taiwan, and with our manufacturing capability and execution, we are confident to deliver the same level of manufacturing quality and reliability as our fabs in Taiwan.

In Japan, our first specialty technology fab in Kumamoto began volume production at the end of 2024, with very good yield. In Europe, we held a ground-breaking ceremony in Dresden, Germany in August, and are progressing smoothly with our plans to build a specialty technology fab, focusing on automotive and industrial applications.

In Taiwan, we continue to invest in and expand our advanced technology and packaging capacities, including 3nm, 2nm and CoWoS® technology capacities, across several locations.

As the world's most reliable and effective capacity provider, TSMC will continue to play a critical and integral role in the global semiconductor industry, while supporting our customers' growth.

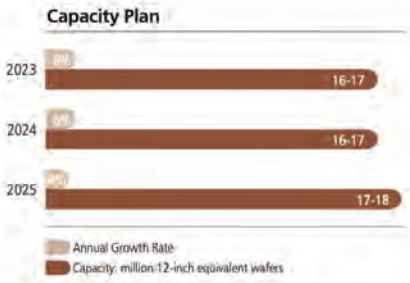
Highlights of TSMC's accomplishments in 2024:

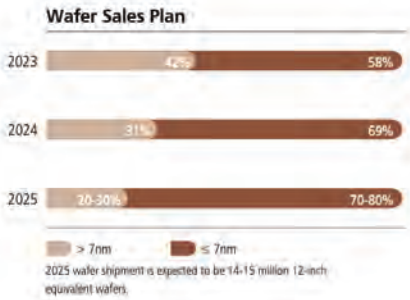
- Total wafer shipments were 12.9 million 12-inch equivalent wafers as compared to 12.0 million 12-inch equivalent wafers in 2023.
- Advanced technologies (7-nanometer and beyond) accounted for 69 percent of total wafer revenue, up from 58 percent in 2023.
- We deployed 288 distinct process technologies, and manufactured 11,878 products for 522 customers.
- TSMC represented 34 percent of the Foundry 2.0 industry, which we define as all logic wafer manufacturing, packaging, testing, mask-making and others, output value in 2024, as compared to 28 percent in the previous year.

2024 Financial Performance

Consolidated revenue reached NT$2,894.31 billion, an increase of 33.9 percent over NT$2,161.74 billion in 2023. Net income was NT$1,173.27 billion and diluted earnings per share were NT$45.25. Both increased 39.9 percent from the 2023 level of NT$838.50 billion net income and NT$32.34 diluted EPS.

In US dollar terms, TSMC generated net income of US$36.52 billion on consolidated revenue of US$90.08 billion, which increased 35.9 percent and 30.0 percent respectively from the 2023 level of US$26.88 billion net income and US$69.30 billion consolidated revenue.





Gross profit margin was 56.1 percent as compared with 54.4 percent in 2023, while operating profit margin was 45.7 percent compared with 42.6 percent a year earlier. Net profit margin was 40.5 percent, an increase of 1.7 percentage points from 2023's 38.8 percent.

In 2024, the Company further raised its total cash dividend payments to NT$14.0 per share, up from NT$11.25 a year ago.

Outlook

Entering 2025, we expect the overall foundry industry to continue a sustaining and mild recovery, even as macroeconomic uncertainties persist. At the same time, we expect 2025 to be another healthy growth year for TSMC, as our technology leadership enables TSMC to win business, and further enables our customers to win business in their end markets.

Continued AI-related demand in 2025 supports our already-strong conviction that the structural demand for energy-efficient computing will accelerate, as everything around us becomes more intelligent and connected.

We are entering an AI-empowered world, where artificial intelligence not only runs in datacenters, but will run in PCs, smartphones, automobiles, and even Internet-of-Things devices in the future.

AI also comes in many different forms, including but not limited to Generative AI applications such as ChatGPT, which consumers have become familiar with thanks to its ease of use and expansive range of potential applications.

Enterprise is another driver of AI demand. Many companies, including TSMC, are using AI to create more value by driving greater productivity, efficiency, speed and quality gains. As a direct user of AI in our fab and R&D operations, we are deriving tangible ROI benefits from our investments in AI and machine learning. TSMC is by no means the only company in the world doing this, so Enterprise AI is another source of AI demand to support the multi-year structural trends.

AI technology is evolving to use ever-increasingly complex AI models, which needs to be supported by more powerful semiconductor hardware.

Thus, the value of our technology platform is increasing, as customers rely on TSMC to provide the most advanced process and packaging technologies at scale, in the most efficient and cost-effective manner.

By upholding our Trinity of Strengths of Technology Leadership, Manufacturing Excellence, and Customer Trust, we can cast a wide net and work with all the IC innovators, and enable our customers to unleash their innovations in their end markets.

Thus, we are well-positioned to address the growth from the industry megatrends of 5G, AI and HPC, with our differentiated technologies.

TSMC's mission is to be the trusted technology and capacity provider for the global logic IC industry for years to come. Our success is predicated on our unwavering dedication to the pure-play foundry business model, and our job is to serve our customers and enable them to be successful.

As the world's most reliable and effective capacity provider, we understand our responsibility as critical and integral player in the global semiconductor industry. We will continue to invest in technology and capacity to support our customers' growth, while ensuring we earn a sustainable and healthy return for our shareholders.

It is TSMC's core values of Integrity, Commitment, Innovation, and Customer Trust that have earned our customers' confidence to grow and prosper together. We hope to earn the same confidence from our shareholders, by continuing to deliver profitable growth and maximizing the value for our shareholders in the years to come.

C.C. Wei
Chairman and Chief Executive Officer

TSMC Financial, Operational, and Sustainability Performance Highlights

FINANCIAL RESULTS

Consolidated revenue reached a record high of **NT$2,894.31 billion,** marking an increase of **33.9%** compared to 2023

Gross profit margin was **56.1%**

Diluted earnings per share reached a record high of **NT$45.25.**

Total cash dividend payments raised to **NT$14.0** per share, up from NT$11.25 a year ago.

Net income was **NT$1,173.27 billion,** up 39.9% from 2023.

SUSTAINABILITY PERFORMANCE

Carbon reduction performance as a key supplier selection criterion to accelerate supply chain decarbonization

Subsidized suppliers for carbon reduction, driving green investments worth **NT$5.5 billion.**

OPERATIONAL ACHIEVEMENTS

Taichung Zero Waste Manufacturing Center became Taiwan's first demonstration site for implementing membrane carbon capture technology.

Advanced technologies (7-nanometer and beyond) accounted for 69% of total wafer revenue

TSMC's total wafer shipments were 12.9 million 12-inch equivalent wafers.

Net Zero by 2050

Selected to the **Dow Jones Sustainability Indices** once again, becoming the only semiconductor company to be included for 24 consecutive years.

Manufactured 11,878 different products using 288 distinct technologies for 522 different customers.

TSMC represented 34% of the Foundry 2.0 [Note] industry.

Investment in R&D reached US$6.361 billion

Note: Foundry 2.0 includes packaging, testing, mask-making and others, and all IDM excluding memory manufacturing.

tsmc
R&D CENTER

2

Company Profile

TSMC's total wafer shipments were 12.9 million 12-inch equivalent wafers in 2024.

2.1 An Introduction to TSMC

Established in 1987 and headquartered in Hsinchu Science Park, Taiwan, TSMC pioneered the pure-play foundry business model with an exclusive focus on manufacturing its customers' products. By choosing not to design, manufacture or market any semiconductor products under its own name, the Company ensures that it never competes with its customers. Based on this founding principle, the key to TSMC's success has always been to enable its customers' success. TSMC's foundry business model has led to the rise of the global fabless industry and, since its inception, TSMC has been a world-leading semiconductor foundry. In 2024, the Company manufactured 11,878 different products using 288 distinct technologies for 522 different customers.

TSMC-made semiconductors serve a global customer base that is large and diverse, entailing a wide range of applications. These semiconductor products are used in a variety of end markets including high performance computing (HPC), smartphones, the Internet of Things (IoT), automotive, and digital consumer electronics. Such strong diversification helps to smooth fluctuations in demand, which in turn allows TSMC to maintain high levels of capacity utilization and profitability, and generate healthy returns for future investment.

The annual capacity of the manufacturing facilities managed by TSMC and its subsidiaries approximately 17 million 12-inch equivalent wafers in 2024. These facilities include four 12-inch wafer GIGAFAB® fabs, four 8-inch wafer fabs, and one 6-inch wafer fab – all in Taiwan – as well as two 12-inch wafer fabs at two wholly owned subsidiaries – TSMC Nanjing Company Limited and TSMC Arizona Corporation, one 12-inch wafer fab at a TSMC's majority-owned manufacturing subsidiary – Japan Advanced Semiconductor Manufacturing, Inc. (JASM), and two 8-inch wafer fabs at two wholly owned subsidiaries – TSMC Washington and TSMC China Company Limited.

TSMC Arizona's first fab has entered volume production of 4nm technology in fourth quarter of 2024. The construction of the second fab is already completed. This fab is in the process of installing facility systems and will utilize 3-nanometer process technologies. In 2024, TSMC announced plans to build a third fab at TSMC Arizona to meet strong customer demand leveraging the most advanced semiconductor process technology in the United States. The third fab will produce chips using 2nm or more advanced processes.

Also in 2024, TSMC, along with minority investors Sony Semiconductor Solutions (SSS), DENSO, and Toyota, announced further investment into JASM to build a second fab, which is planned to commence construction in 2025. Together with its first fab, which began volume production at the end of 2024, the overall investment in JASM will exceed US$20 billion. With both fabs, JASM's Kumamoto site plans to offer 40, 22/28, 12/16 and 6/7 nanometer process technologies for automotive, industrial, consumer electronics and HPC-related applications.

The Company began construction on a specialty technology fab in Dresden, Germany, in 2024. This facility will manufacture TSMC's 28/22 nanometer planar CMOS and 16/12 nanometer FinFET process technologies.

Outside of Taiwan, TSMC provides customer support, account management and engineering services through its offices in North America, Europe, Japan, China, and South Korea. At the end of 2024, the Company and its subsidiaries employed more than 83,000 people worldwide.

The Company is listed on the Taiwan Stock Exchange (TWSE) under ticker number 2330, and its American Depositary Shares (ADSs) are traded on the New York Stock Exchange (NYSE) under the symbol TSM.

2.2 Market/Business Summary

2.2.1 TSMC Achievements

In 2024, TSMC maintained its leading position in the IC manufacturing segment of the global semiconductor industry by accounting for 34% of the "Foundry 2.0" industry, which TSMC defines as all logic wafer manufacturing, packaging, testing, mask-making and others, an increase from 28% in 2023.

The Company's strong market position stems in great part from its leadership in advanced process technologies. In 2024, 69% of TSMC's wafer revenue came from advanced manufacturing processes – defined as geometries of 7nm and smaller – up from 58% in 2023.

TSMC offers a comprehensive technology portfolio and continues to expand its advanced technologies, specialty technologies, and advanced silicon stacking and packaging technologies, to meet customer demand and provide more added value.

In addition to its leadership in advanced process and specialty technologies, TSMC offers TSMC 3DFabric®, a comprehensive family of 3D silicon stacking and advanced packaging technologies to complement its process technology offerings. TSMC 3DFabric® provides customers greater chip design flexibility to unleash innovation and is another differentiating competitive advantage for the Company.

2.2.2 Market Overview

TSMC estimates that the worldwide semiconductor market excluding memory reached US$514 billion in revenue in 2024, representing a 7% increase from 2023. As for foundry, TSMC expands our original definition of foundry industry to "Foundry 2.0", which also includes packaging, testing, mask-making, and other related technologies, as well as all integrated device manufacturing (IDMs) excluding memory. In the subsequence, all instances of "foundry" will refer to the new definition of "Foundry 2.0" as this new definition more accurately reflects TSMC's addressable market opportunities going forward. Under this new definition, the size of the foundry industry was close to US$250 billion in 2023 as compared to US$150 billion under the previous definition, and the growth in 2024 is forecasted to be approximately 6% year-over-year.

2.2.3 Industry Outlook, Opportunities and Threats

Foundry Industry Demand and Supply Outlook

In 2024, TSMC's revenues in the foundry segment rebounded strongly from the decline in 2023. The rapid growth of artificial intelligence (AI) deployments drove strong increases in demand for advanced node semiconductor chips, benefitting foundry player like TSMC with leadership in advanced technologies. In addition, end demand from smartphones and personal computers (PCs) showed a mild recovery from declines in previous year, although other markets such as the Internet of Things (IoT), automotive and industrial remained weak. At the same time, after the widespread severe inventory correction in 2023, the supply chain started to rebuild inventory for some markets like AI and smartphone, which also contributed to the recovery in the foundry segment.

Looking ahead to 2025, the global trade war and protectionism are intensifying, incurring risks and uncertainties to the end demand of electronic equipment. However, TSMC expects the strong demand for AI to continue, while smartphone and PC to mildly recovering. TSMC expects inventory correction to continue in the IoT, automotive and industrial sectors, impacting demand for more mature nodes of semiconductors. For the longer term, driven by the megatrends such as AI, 5G, digital transformation, and increasing semiconductor content in most electronic equipment, TSMC projects a high single-digit compound annual growth rate for the worldwide semiconductor market excluding memory through 2029.

As an upstream supplier in the semiconductor supply chain, the foundry segment is tightly correlated with the market health of all major platforms including high performance computing (HPC), smartphones, IoT, automotive, and digital consumer electronics (DCE).

- **High Performance Computing (HPC)**

The HPC platform includes PCs, tablets, game consoles, servers, base stations and more. Major HPC unit shipments grew by 1% in 2024 due to a slow recovery in PCs and continued inventory correction for game consoles, both reflecting weak demand on the consumer side. Meanwhile, demand for servers and data centers equipped with AI accelerators was relatively healthy, helped by the proliferation of AI applications, especially generative AI.

For 2025, TSMC projects a flattish outlook for both PC and server unit shipments, driven by normalized inventory levels, pent-up PC replacement demand caused by the pandemic, and the ongoing AI arms race, while offsetting by macro-economic uncertainty. Longer term, an increasingly intelligent and more connected 5G world will create demand for massive computing power as well as increasingly energy-efficient computing. Both require higher performance and more power-efficient central processing units (CPUs), graphics processor units (GPUs), network processing units (NPUs), AI accelerators and related application-specific integrated circuits (ASICs), which will drive the overall HPC platform towards richer silicon content, more advanced process technologies and advanced 3D packaging. These trends are all favorable to TSMC given its technology leadership in these areas.

- **Smartphones**

With gradual recovery of the global economy and the end of the supply chain inventory correction, smartphone unit shipments grew by 4% in 2024, reflecting continued 5G commercialization worldwide and rising demand from emerging countries, as well as cyclical recovery. Smartphone growth is expected to show marginal growth in 2025 considering macro-economic uncertainty. Over the longer term, however, the inevitable migration to 5G along with the

need for improved performance, longer battery life, biosensors and more edge AI features, will all continue to fuel smartphone sales growth.

High performance and power efficient IC technologies are essential requirements among handset manufacturers, and highly integrated chips and advanced 3D packaging designs are the preferred solutions to optimize cost, power and form factor (IC footprint and thickness). The migration to advanced process technologies will certainly continue, spurred by the need for higher performance chips to run edge AI applications and various complex software computations as well as higher resolution images and video. TSMC is an acknowledged leader in process technology for manufacturing highly integrated chips and advanced 3D packaging designs and, as such, is very well positioned to serve the evolving needs of the smartphone market.

• **Internet of Things (IoT)**
The IoT platform includes various types of smart, connected devices ranging from wearables and health monitors to home appliances and industrial automation devices. Since the pandemic, digital transformation has been the main growth driver of IoT, offset to a large degree by continued destocking in the industrial market. As a result, IoT device shipments in 2024 grew a modest 3% with smart wearable, health and retail devices leading the way.

As IoT devices incorporate more AI features, the IoT industry is expected to achieve solid long-term growth. Momentum continues for consumer devices, but industrial demand is expected to remain soft in the first half of 2025 with some improvement in the second half. Overall, TSMC projects IoT unit shipments will continue a mid-single-digit growth in 2025. As IoT devices become smarter with the integration of AI, they will require more chips with higher performance and lower power consumption. TSMC offers various manufacturing processes to support these needs, including cost-effective advanced technology, ultra-low power (ULP) and various special process technologies to support customers in providing innovative and competitive products, and fulfill requirements of sustainability development.

• **Automotive**
The global automotive market was soft in 2024, reflecting the fulfilment of prior pent-up demand and a downturn in macroeconomic conditions. Worldwide car unit production declined by 1% due to reduced demand and higher inventory levels among Original Equipment Manufacturer (OEMs) and dealers. The global automotive market is expected to face continued challenges in 2025 from inflation and macroeconomic uncertainty, TSMC projects a low-to-mid-single-digit decline in car unit production.

The megatrends in the automotive industry today are "greener, safer and smarter," which will accelerate the adoption of electric vehicles (EVs), advanced driver assistance systems (ADAS) and smart cockpit/infotainment systems, along with new electrical/electronic (E/E) architecture. All these will further boost demand for application processor (AP), microcontroller unit (MCU), ASIC processors, in-car networking, sensors, and power management ICs (PMICs), thus continuously increasing the silicon content per car. TSMC is well-positioned to support the automotive industry's transition by providing advanced process technologies and manufacturing solutions that enable customers to develop competitive products. In addition, TSMC also offers a range of automotive-grade manufacturing processes, including those with AEC-Q100 and ISO 26262 certification, to ensure the highest levels of quality and reliability for automotive applications.

• **Digital Consumer Electronics (DCE)**
The global DCE market experienced a 2% decline in 2024, primarily due to weakened demand for set-top boxes (STBs) and other consumer products following the pandemic-induced demand surge. In contrast, TV shipments increased by 4% year-over-year, driven by subsidies in China.

Looking ahead to 2025, the DCE market in Europe is expected to recover gradually, potentially following the end of the war in Ukraine. Meanwhile, in China, recovery is also anticipated as the government injects more stimulus through initiatives such as the "Swap Old for New" subsidy. However, macro-economic uncertainty could create headwinds likely leading to moderate decline in 2025. Regardless of the timing of market recovery, TSMC's advanced technologies will continue to empower DCE customers to develop and differentiate their innovative products.

Supply Chain
The electronics industry features a long and complex supply chain, the elements of which are correlated and highly interdependent. At the upstream manufacturing level, IC vendors need to have sufficient and flexible supply deliveries to

cope with fluctuating demand dynamics. Foundry vendors play an important role in maintaining the health and effectiveness of the supply chain. As a leader in the foundry segment, TSMC provides advanced technologies and large-scale capacity to complement the innovations created in the downstream chain.

2.2.4 TSMC Position, Differentiation and Strategy

Position

TSMC is a global semiconductor foundry leader in advanced and specialty technologies and in advanced packaging technologies. In 2024, TSMC accounted for 34% of the Foundry 2.0 industry, which TSMC defined as all logic wafer manufacturing, packaging, testing, mask-making and others output value, an increase from 28% in 2023. Net revenue by geography, calculated mainly on the country in which customer companies are headquartered, was: 70% from North America; 11% from China; 10% from the Asia Pacific region, excluding China and Japan; 5% from Japan; and 4% from Europe, the Middle East and Africa. Net revenue by platform was: 51% HPC; 35% smartphones; 6% the IoT; and 5% automotive. In addition, 1% came from DCE, while other segments accounted for the remaining 2%.

Differentiation

TSMC's leadership position is based on three defining competitive strengths and a business strategy rooted in the Company's heritage. The Company distinguishes itself from the competition through its technology leadership, manufacturing excellence, and customer trust.

As a technology leader, TSMC is consistently first among dedicated foundries to provide leading-edge, next-generation technologies. The Company also maintains a leadership position in more mature technologies by applying the lessons learned in developing advanced technologies to enrich its specialty technologies. Beyond process technology, TSMC has established frontend and backend integration capabilities to create the optimum power/performance/area "sweet spot" to help customers achieve faster time to production.

TSMC, well recognized for industry-leading manufacturing capabilities, further extends its leadership through its Open Innovation Platform® (OIP) and Grand Alliance initiatives. The Company's OIP initiative accelerates the pace of innovation in the semiconductor design community and among the Company's ecosystem partners, as well as in its own IP, design and technology co-optimization (DTCO) capabilities, process technology and backend services. A key element is a set of ecosystem interfaces and collaborative components initiated and supported by the Company to more efficiently empower innovation throughout the supply chain and drive the creation and sharing of new revenue and profits. The TSMC Grand Alliance is one of the most powerful forces for innovation in the semiconductor industry, bringing together customers, electronic design automation (EDA) partners and IP partners, along with the partners in the new TSMC 3DFabric® Alliance, and key equipment and material suppliers – all to achieve new, higher levels of collaboration. Through this collaboration, the Grand Alliance's objective is to help customers, Alliance members and TSMC improve competitiveness and win business.

The foundation for customer trust is a commitment TSMC made when it opened for business in 1987 to never compete with its customers. In keeping this commitment, the Company has never designed, manufactured or marketed any integrated circuits or IC devices under its own name, but instead has focused all of its efforts and resources on becoming the trusted foundry for its customers.

Strategy

TSMC is confident that its competitive advantages will enable it to prosper from the foundry segment's many attractive growth opportunities. For the five major markets, namely high performance computing, smartphones, the Internet of Things, automotive, and digital consumer electronics, and in response to the fact that the focus of customer demand is shifting from a process-technology-centric to a product-application-centric approach, the Company has constructed five corresponding technology platforms to provide customers with comprehensive, competitive logic process technologies, specialty technologies, IPs and packaging and testing technologies to shorten customers' time to design and time to market. These five platforms are:

High Performance Computing (HPC): Driven by data explosion and AI application innovation, HPC has become the key growth driver for TSMC's business. TSMC provides customers, including both fabless IC design companies and system companies, with leading-edge logic process technologies such as 2nm nanosheet (N2), 3nm FinFET (N3), 4nm FinFET (N4), 5nm FinFET (N5), 6nm FinFET (N6), and 7nm FinFET (N7), as well as comprehensive IPs including high-speed

interconnect IPs, to meet customers' product requirements for transferring and processing vast amounts of data anywhere at any time. Specifically, the Company introduced its HPC-focused technologies, N4X and N3X, representing the ultimate performance and maximum clock frequencies in TSMC's 5nm and 3nm families, respectively. Based on advanced process nodes, a variety of HPC products have been launched, such as AI accelerators, including AI GPUs and AI ASICs, PC CPUs, consumer GPUs, field programmable gate arrays (FPGAs), server processors, and high-speed networking chips, etc. These products can be used in current and future 5G/6G infrastructures, AI, Cloud, and enterprise data centers. The Company also offers multiple TSMC 3DFabric® advanced silicon stacking and packaging technologies, such as TSMC-SoIC® manufacturing service, and Integrated Fan-Out (InFO) and CoWoS® advanced packaging services, to enable homogeneous and heterogeneous chip integration to meet customer requirements for high performance, high compute density and high energy efficiency, low latency, and high integration. TSMC will continue to optimize its HPC platform and strengthen collaboration with customers to help them capture market growth in HPC markets.

Smartphones: For customers' premium product applications, TSMC offers leading logic process technologies such as N2 Plus (N2P), N3 Enhanced (N3E), N3, N4 Plus (N4P), N4, N5 Plus (N5P), N5, as well as comprehensive IPs to further enhance chip performance, reduce power consumption, and decrease chip size. For mainstream product applications, the Company offers a broad range of logic process technologies, including N4 Compact (N4C), N6, 7nm FinFET Plus (N7+), N7, 12nm FinFET Compact Plus (12FFC+), 12nm FinFET Compact (12FFC), 16nm FinFET Compact Plus (16FFC+), 16nm FinFET Compact (16FFC), 28nm High Performance Compact Plus (28HPC+), 28nm High Performance Compact (28HPC), and 22nm Ultra-Low Power (22ULP), in addition to comprehensive IPs, to satisfy customer needs for high performance and low power chips. Furthermore, for both premium and mainstream product applications, the Company offers leading-edge, highly competitive specialty technologies to deliver specialty companion chips for customers' logic application processors, including radio frequency (RF), RF front-end, embedded non-volatile memory, power management ICs, sensors, and display chips, as well as TSMC 3DFabric® advanced packaging technologies, such as TSMC's industry-leading InFO technology.

Internet of Things: Following the three megatrends of the IoT segment, "Everything Connected, Smart and Green," TSMC not only provides customers with solid logic technologies, including 5nm, 6nm, 7nm, 12nm, 16nm, and 28nm, but also builds a leading, complete and highly integrated ULP technology platform based on its logic technologies to enable customers' product innovations for the artificial intelligence of things (AIoT).

TSMC's industry-leading ULP technologies, including its new FinFET-based 6nm technology – N6e® and 12nm technology – N12e® feature both energy efficiency and high performance. These technologies provide more computing power and AI inferencing capability while reducing system power consumption. In addition, the planar transistor based mainstream technologies, such as 22nm ultra-low leakage (ULL), 28nm ULP, 40nm ULP, and 55nm ULP technologies, have been widely adopted by various IoT system-on-a-chip (SoC) and battery-powered products to extend battery life.

TSMC's ULP technology platform also provides customers with comprehensive specialty technologies, covering RF, enhanced analog devices, embedded non-volatile memory, sensors, display devices and PMICs. For extreme low power product application requirements, TSMC has also extended its low operating voltage (Low Vdd) offerings and has provided simulation program with integrated circuit emphasis (SPICE) models with wide-range operating voltages and design guidelines to lower the adoption barrier and reduce lead time to help customers successfully launch innovative products.

Automotive: TSMC offers a comprehensive spectrum of technologies and services to support the automotive industry's three megatrends – building vehicles that are "Safer, Smarter and Greener." The Company is also an industry leader in providing a robust automotive IP ecosystem, which covers 5nm FinFET, 7nm FinFET, and 16nm FinFET technologies for ADAS, advanced in-vehicle infotainment (IVI), as well as zonal controllers for new E/E architectures in next-generation vehicles, including internal combustion engines (ICEs) and electric vehicles (EVs). In 2023, TSMC introduced its N3 Auto

Early (N3AE) program, providing automotive process design kits (PDKs) to support automotive customers. N3AE has since migrated to N3A with V0.9 PDK released in 2024 to support customers to design automotive application products early on.

In addition to its advanced logic platform, TSMC offers a broad array of competitive automotive-grade specialty technologies including 28nm embedded flash memory, 28nm, 22nm, and 16nm mmWave RF, high dynamic range (HDR), high sensitivity CMOS image sensor (CIS)/light detection and ranging (LiDAR) sensors, and PMICs. The emerging technology of magnetoresistive random access memory (MRAM) demonstrated automotive Grade-1 capability on 22nm and passed automotive Grade-1 requirements on 16nm in 2023. All these technologies have been applied to TSMC's automotive process qualification standards based on AEC-Q100 standards of Automotive Electronic Council (AEC) and/or meeting customers' technology specifications.

Digital Consumer Electronics (DCE): TSMC provides customers with leading, comprehensive technologies to deliver AI-enabled smart devices for DCE applications, including smart digital TVs (DTVs), set-top boxes (STBs), AI-embedded smart cameras and associated wireless local area networks (WLANs), PMICs, and timing controllers (T-CONs). The Company's leading N6, N7, 16FFC/12FFC, 22ULP/22ULL and 28HPC+ technologies have been widely adopted by leading global makers of 8K/4K DTVs and STBs, 4K streaming media devices (SMDs)/over-the-top (OTT), digital single-lens reflex (DSLR) cameras, and so on. TSMC will continue to make these technologies more competitive through DTCO for customers' digital intensive chip designs and to drive lower power consumption for more cost-effective packaging.

TSMC continually strengthens its core competitiveness and deploys both short- and long-term plans for technology and business development and assists customers in tackling the challenges posed by short product cycles and intense competition in the electronic products market to achieve return on investment (ROI) and growth objectives.

- **Short-Term Semiconductor Business Development Plan**

1. Substantially ramp up the business and sustain advanced technology market segment share by continually increasing capacity and R&D investments.
2. Maintain mainstream technology market segment share by expanding business to new customers and market segments.
3. Continue to enhance the competitive advantages of the Company's technology platforms in HPC, smartphones, IoT, automotive, and digital consumer electronics to expand TSMC's dedicated foundry services in these product applications.
4. Further expand TSMC's business and service infrastructure into emerging and developing markets.

- **Long-Term Semiconductor Business Development Plan**

1. Continue developing leading-edge technologies at a predictable pace to achieve greater energy-efficient computing.
2. Broaden specialty business contributions by further developing derivative technologies.
3. Provide more integrated services, covering system-level integration design, design technology definition, design tool preparation, wafer processing, TSMC 3DFabric® advanced silicon stacking and packaging technologies, and testing services, etc., all of which deliver more value to customers through optimized solutions.

2.3 Board Members

2.3.1 Information Regarding Board Members (Note 1)

Title/Name	Gender Age	Nationality or Place of Registration	Date Elected	Term Expires	Date First Elected	Shares Held When Elected		Shares Currently Held	
						Shares (Note 2)	%	Shares (Note 2)	%
Chairman C.C. Wei	Male 71-75	R.O.C.	06/04/2024	06/03/2027	06/08/2017	6,392,834	0.02%	6,392,834	0.02%
Director F.C. Tseng	Male 76-80	R.O.C.	06/04/2024	06/03/2027	05/13/1997	29,472,675	0.11%	29,472,675	0.11%
Director National Development Fund, Executive Yuan (Note 3) Representative: Chin-Ching Liu	Male 61-65	R.O.C.	06/04/2024	06/03/2027	12/10/1986 06/06/2024 (Note 4)	1,653,709,980 -	6.38% -	1,653,709,980 -	6.38% -

As of 02/28/2025

Shares Currently Held by Spouse & Minors		Selected Education and Professional Qualification Past Positions Current Positions at Non-profit Organizations	Selected Current Positions at TSMC and Other Companies
Shares (Note 2)	%		
700,261	0.00%	**Selected Education and Professional Qualification** Bachelor and Master Degrees in Electrical Engineering, National Chiao Tung University Ph.D. in Electrical Engineering, Yale University, U.S. Honorary Ph.D., National Yang Ming Chiao Tung University Laureate, Industrial Technology Research Institute (ITRI) **Past Positions** Senior Vice President, Technology, Chartered Semiconductor Manufacturing Ltd., Singapore Senior Vice President, Mainstream Technology Business, TSMC Senior Vice President, Business Development, TSMC Executive Vice President and Co-Chief Operating Officer, TSMC President and Co-CEO, TSMC Vice Chairman, TSMC Chairman, Taiwan Semiconductor Industry Association (TSIA)	Chief Executive Officer, TSMC
5,132,855	0.02%	**Selected Education and Professional Qualification** Bachelor Degree in Electrical Engineering, National Cheng Kung University Master Degree in Electrical Engineering, National Chiao Tung University Ph.D. in Electrical Engineering, National Cheng Kung University Honorary Ph.D., National Chiao Tung University Honorary Ph.D., National Tsing Hua University **Past Positions** President, Vanguard International Semiconductor Corp. President, TSMC Deputy CEO, TSMC Vice Chairman, TSMC Independent Director, Chairman of Audit Committee & Compensation Committee Member, Acer Inc. Director, National Culture and Arts Foundation, R.O.C. **Current Positions at Non-profit Organizations** Chairman, TSMC Education and Culture Foundation Director, Cloud Gate Culture and Arts Foundation Director, Chu-Ming Medical Foundation	Chairman, TSMC China Company Ltd. (a non-public company) Chairman, Global UniChip Corp. Vice Chairman, Vanguard International Semiconductor Corp. Director, eMemory Technology, Inc.
-	-	**Selected Education and Professional Qualification** Bachelor Degree in Mathematics, Chung Yuan University Master Degree in Business Administration, National Taiwan University **Past Positions** SCM Consultant leader of IBM Greater China Executive of IBM Manufacturing Consultant Service General Manager of IBM Global Business Service General Manager of IBM General Business Group Partner/Vice Chairman of PwC Consultant Chairman of Tax and Finance Committee Chinese National Federation of Industries Professor level Technical Expert, Depart of Accounting, National ChengChi University Chairman, PwC Consultant Service, Taiwan Chairman, PwC Business Consultant Service, Taiwan Chairman, PwC Group Taiwan **Current Positions at Non-profit Organizations** Minister without Portfolio, Executive Yuan & concurrently Minister, National Development Council The Convener of National Development Fund, Executive Yuan	None

(Continued)

Title/Name	Gender Age	Nationality or Place of Registration	Date Elected	Term Expires	Date First Elected	Shares Held When Elected		Shares Currently Held	
						Shares (Note 2)	%	Shares (Note 2)	%
Independent Director Sir Peter L. Bonfield	Male 76-80	UK	06/04/2024	06/03/2027	05/07/2002	--	--	--	--
Independent Director Michael R. Splinter	Male 71-75	U.S.	06/04/2024	06/03/2027	06/09/2015	--	--	--	--
Independent Director Moshe N. Gavrielov	Male 66-70	U.S.	06/04/2024	06/03/2027	06/05/2019	--	--	--	--

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Shares Currently Held by Spouse & Minors		Selected Education and Professional Qualification Past Positions Current Positions at Non-profit Organizations	Selected Current Positions at TSMC and Other Companies
Shares (Note 2)	%		
-	-	**Selected Education and Professional Qualification** Bachelor Degree in Engineering, Loughborough University Honorary Doctorate of Technology, Loughborough University Fellow of the Royal Academy of Engineering Knighted, 1996 Awarded Commander of the Order of the British Empire (CBE), 1989 Awarded the Order of the Lion of Finland Awarded the Gold Medal from the Institute of Management Awarded the Mountbatten Medal from the National Electronics Council Awarded the FT ODX Outstanding Director Award, 2019 11 Honorary Doctorate Degrees in total Awarded Commander of the Order of Orange Nassau, 2024 **Past Positions** Semiconductor Engineer, Texas Instruments Inc. (T.I.), U.S. Chairman, NXP Semiconductors N.V., the Netherlands Chairman and CEO, ICL Plc, UK CEO and Chairman of the Executive Committee, British Telecommunications Plc Chairman, GlobalLogic Inc., U.S. Vice President, the British Quality Foundation Director, Mentor Graphics Corp., U.S. Director, Sony Corp., Japan Director, L.M. Ericsson, Sweden Senior Independent Director, AstraZeneca, UK Chair of Council and Senior Pro-Chancellor, Loughborough University, UK Board Member, EastWest Institute, New York Senior Advisor, Alix Partners LLP, London Advisory Board Member, The Longreach Group Ltd., HK Member of the International Advisory Board, Citigroup, U.S. Board Mentor, Chairman Mentors International (CMI) Ltd., London Non-Executive Director, Darktrace Plc, UK	Non-Executive Director, Imagination Technologies Group Ltd., UK (a non-public company)
-	-	**Selected Education and Professional Qualification** Bachelor and Master Degrees in Electrical Engineering, University of Wisconsin-Madison Honorary Ph.D. in Engineering, University of Wisconsin-Madison Awarded 2013 Robert N. Noyce Award by Semiconductor Industry Association Member of the National Academy of Engineering Recognized as NACD (National Association of Corporate Directors) Directorship Certified™, 2020 **Past Positions** Executive Vice President of Technology and Manufacturing Group, Intel Corp. Executive Vice President of Sales and Marketing, Intel Corp. CEO, Applied Materials, Inc. Chairman, Applied Materials, Inc. Director, The NASDAQ OMX Group, Inc. Director, Silicon Valley Leadership Group Director, SEMI Director, Meyer Burger Technology Ltd., Switzerland Chairman of the Board, NASDAQ, Inc. Director, Pica8 Inc., U.S. Director, University of Wisconsin Foundation, U.S. Chairman of the Board, US-Taiwan Business Council Independent Director and Compensation Committee Chair, Gogoro Inc., Cayman Islands Chair of Industrial Advisory Committee, National Institute of Standards and Technology, Department of Commerce, U.S. **Current Positions at Non-profit Organizations** Chair, Board of Trustees, Natcast, U.S.	Lead Independent Director, NASDAQ, Inc. Independent Director, Compensation Committee Chair, and Nominating and Corporate Governance Committee Member, Tigo Energy, Inc., U.S. Independent Director, Kioxia Holdings Corp., Japan (a non-public company) General Partner, WISC Partners LP, U.S. General Partner, MRS Business and Technology Advisors, U.S. (a non-public company)
-	-	**Selected Education and Professional Qualification** Bachelor Degree in Electrical Engineering, Technion - Israel Institute of Technology Master Degree in Computer Science, Technion - Israel Institute of Technology **Past Positions** In a variety of engineering and engineering management positions, National Semiconductor Corp. and Digital Equipment Corp., U.S. In a variety of executive management positions, LSI Logic Corp. for nearly 10 years, U.S. CEO, Verisity, Ltd., U.S. Executive Vice President and General Manager of the Verification Division, Cadence Design Systems, Inc., U.S. President and CEO, Xilinx, Inc., U.S. Director, Xilinx, Inc., U.S. Executive Chairman, Wind River Systems, Inc., U.S. Director, San Jose Institute of Contemporary Art, U.S. Advisor, Matrix Capital Management Company LP, U.S.	Chairman, SiMa Technologies, Inc., U.S. (a non-public company) Chairman, Foretellix, Ltd., Israel (a non-public company) Independent Director, NXP Semiconductors N.V., the Netherlands Independent Director, Cadence Design Systems, Inc., U.S.

(Continued)

Title/Name	Gender Age	Nationality or Place of Registration	Date Elected	Term Expires	Date First Elected	Shares Held When Elected		Shares Currently Held	
						Shares (Note 2)	%	Shares (Note 2)	%
Independent Director L. Rafael Reif	Male 71-75	U.S.	06/04/2024	06/03/2027	07/26/2021	-	-	-	-
Independent Director Ursula M. Burns	Female 66-70	U.S.	06/04/2024	06/03/2027	06/04/2024	-	-	-	-

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Shares Currently Held by Spouse & Minors		Selected Education and Professional Qualification Past Positions Current Positions at Non-profit Organizations	Selected Current Positions at TSMC and Other Companies
Shares (Note 2)	%		
-	-	**Selected Education and Professional Qualification** Ingeniero Eléctrico Degree, Universidad de Carabobo, Valencia, Venezuela Master Degree and Ph.D. in Electrical Engineering, Stanford University Honorary Doctor of Laws Degree, The Chinese University of Hong Kong (2015) Honorary Doctorates from Tsinghua University (2016), the Technion (2017), Arizona State University (2018) and University of Miami (2022) Member of Tau Beta Pi, the Engineering Honor Society Member of the Electrochemical Society Fellow of the Institute of Electrical and Electronics Engineers (IEEE) Member of the American Academy of Arts and Sciences, the National Academy of Engineering and the Chinese Academy of Engineering Fellow of the National Academy of Inventors Awarded with United States Presidential Young Investigator Award (1984) Awarded with the Semiconductor Research Corporation's Aristotle Award (2000) Awarded the Tribeca Disruptive Innovation Award (2012) Awarded the Frank E. Taplin, Jr. Public Intellectual Award by the Woodrow Wilson National Fellowship Foundation (2015) Awarded with Engineer of the Year from Great Minds in STEM (2018) Awarded the Simon Ramo Founders Award by the U.S. National Academy of Engineering (2022) Inventor or co-inventor on 13 patents, editor or co-editor of 5 books, and supervisor to 38 doctoral theses **Past Positions** Assistant Professor, Universidad Simón Bolívar, Caracas, Venezuela Visiting Assistant Professor of Electrical Engineering, Stanford University Faculty, Massachusetts Institute of Technology (MIT), since 1980 IBM Faculty Fellowship, MIT Center for Materials Science and Engineering Analog Devices Career Development Professorship, MIT Electrical Engineering Fariborz Maseeh Professor of Emerging Technology, MIT (2004-2012) Director of Microsystems Technology Laboratories, MIT Associate Department Head of Electrical Engineering, MIT Head of the Department of Electrical Engineering and Computer Science (EECS), MIT Provost, MIT Independent Director, Alcoa Corp., U.S. Director, Arconic Inc., U.S. Director, Schlumberger Ltd., U.S. President, MIT (2012-2022) **Current Positions at Non-profit Organizations** President Emeritus, MIT, since 2023 Ray and Maria Stata Professor of Electrical Engineering and Computer Science, MIT, since 2023 Member, Board of Trustees, Carnegie Endowment for International Peace, U.S. Director, Council on Foreign Relations, U.S. Director, Waverley Street Foundation, U.S. Member, Board of Trustees, Instituto Tecnológico de Monterrey, Mexico Member, Board of Trustees, Massachusetts General Hospital, U.S.	Co-Chair of Growth Technical Advisory Board, Applied Materials, Inc. Director, Engine No. 1 LP, U.S. (a non-public company)
-	-	**Selected Education and Professional Qualification** Bachelor Degree in Mechanical Engineering, Polytechnic Institute of New York University Master Degree in Mechanical Engineering, Columbia University Member, National Academy of Engineering Member, American Academy of Arts and Sciences Member, Royal Academy of Engineering **Past Positions** Chairwoman, CEO and President, Xerox Corp., U.S. Chairwoman and CEO, VEON Ltd., the Netherlands Director, Boston Scientific Corp., U.S. Director, American Express Company Director, Nestlé S.A., Switzerland Director, ExxonMobil Corp., U.S. Executive Chairwoman, Plum Acquisition Corp. I, U.S. Leader, White House National Program on Science, Technology, Engineering and Math (STEM) Chair, President's Export Council Member, G7 Gender Equality Advisory Council Director, Endeavor Group Holdings, Inc., U.S. Vice Chair, Advisory Council on Supply Chain Competitiveness (ACSCC), U.S. Department of Commerce (2022-2024) **Current Positions at Non-profit Organizations** Member, Board of Trustees, Ford Foundation, U.S. Member, Board of Trustees, Massachusetts Institute of Technology (MIT) Corp. Member, Board of Trustees, Metropolitan Museum of Art, U.S. Member, Board of Trustees, Mayo Clinic, U.S.	Non-Executive Chairwoman, Teneo Holdings LLC, U.S. (a non-public company) Independent Non-Executive Director, IHS Holding Ltd., Cayman Islands Director, Uber Technologies Inc., U.S. Founding Partner, Integrum Holdings LP, U.S. (a non-public company)

(Continued)

Title/Name	Gender Age	Nationality or Place of Registration	Date Elected	Term Expires	Date First Elected	Shares Held When Elected		Shares Currently Held	
						Shares (Note 2)	%	Shares (Note 2)	%
Independent Director Lynn L. Elsenhans	Female 66-70	U.S.	06/04/2024	06/03/2027	06/04/2024	-	-	-	-
Independent Director Chuan Lin	Male 71-75	R.O.C.	06/04/2024	06/03/2027	06/04/2024	126,826	0.00%	126,826	0.00%

Remarks:
1. No member of the Board of Directors held TSMC shares by nominee arrangement.
2. Managers or Directors who are spouses or within second-degree relative of consanguinity to the directors: None.
3. Rationale for electing the same person as Chairman and Chief Executive Officer (CEO): To navigate the rapidly changing landscape of the highly competitive semiconductor industry, TSMC's Board of Directors elected Dr. C.C. Wei as the Chairman and CEO following the Board's re-election at the Annual Shareholders' Meeting on June 4, 2024. With Dr. Wei at the helm, the alignment between the Board of Directors and the management team is expected to be more effective, enhancing efficiency in decision-making and execution and maximizing shareholder value. The Company currently has seven independent directors, accounting for 70% of the total board seats. The remaining directors do not hold managerial or employee roles within the Company, ensuring the Board's independence in decision-making while enabling professional oversight and guidance that meet shareholder and market expectations for the Company's stability and long-term value.

Note 1: TSMC shareholders elected TSMC's 16th Board of Directors at its 2024 Annual Shareholders' Meeting on June 4, 2024. The ten Directors (including seven Independent Directors) are: Dr. C.C. Wei, Dr. F.C. Tseng, Dr. Ming-Hsin Kung (Representative of the National Development Fund, Executive Yuan), Sir Peter Leahy Bonfield (Independent Director), Mr. Michael R. Splinter (Independent Director), Mr. Moshe N. Gavrielov (Independent Director), Dr. L. Rafael Reif (Independent Director), Ms. Ursula M. Burns (Independent Director), Ms. Lynn L. Elsenhans (Independent Director), and Dr. Chuan Lin (Independent Director). After the Annual Shareholders' Meeting, TSMC held the first meeting of the 16th Board of Directors, where the Board unanimously elected Dr. C.C. Wei as Chairman and Chief Executive Officer.

Note 2: Does not include shares held in the form of ADSs.

Note 3: Major Shareholders of the Institutional Shareholder

Institutional Shareholder	Major Shareholders (Top 10 Shareholders) of the Institutional Shareholder
National Development Fund, Executive Yuan	Not Applicable

Note 4: Mr. Chin-Ching Liu was appointed as the representative of the National Development Fund succeeding Mr. Ming-Hsin Kung on June 6, 2024.

Shares Currently Held by Spouse & Minors		Selected Education and Professional Qualification Past Positions Current Positions at Non-profit Organizations	Selected Current Positions at TSMC and Other Companies
Shares (Note 2)	%		
-	-	**Selected Education and Professional Qualification** Bachelor Degree in Applied Mathematics, Rice University Master Degree in Business Administration, Harvard University **Past Positions** Chairwoman, President and CEO, Sunoco Inc., U.S. Chairwoman and CEO, Sunoco Logistics Partners L.P., U.S. Executive Vice President of Global Manufacturing, Shell Downstream Inc., U.S. President and CEO, Shell Oil Products, U.S. President of Shell Oil Company and US Country Chair Independent Director, International Paper Company, U.S. Independent Director, Flowserve Corporation, U.S. Independent Director, GlaxoSmithKline plc, UK **Current Positions at Non-profit Organizations** Advisory Board Member of Whiting School of Engineering, Johns Hopkins University	Independent Director and Governance & Corporate Responsibility Committee Chair, Baker Hughes Company, U.S. Independent Non-Executive Director, Audit Committee Member, and Nomination Committee Member, Saudi Arabian Oil Co., Kingdom of Saudi Arabia Independent Director, Peter Kiewit and Sons Inc., U.S. (a non-public company)
16,003	0.00%	**Selected Education and Professional Qualification** Bachelor Degree in Economics, Fu Jen Catholic University Master Degree in Public Finance, National Chengchi University Ph.D. in Economics, University of Illinois Urbana-Champaign, U.S. **Past Positions** Research Fellow, Chung-Hua Institution for Economic Research Professor and Department Chair, Public Finance, National Chengchi University Director General, Bureau of Finance, Taipei City Government Minister, Directorate General of Budget, Accounting and Statistics of Executive Yuan Minister of Finance Premier of Executive Yuan Chairman, Vanguard International Semiconductor Corporation Independent Director, Casetek Holdings Limited Independent Director, Inotera Memories, Inc. Director, PharmaEngine, Inc. Director, Chartis Taiwan Insurance Co., Ltd. Chief Executive Officer, New Frontier Foundation **Current Positions at Non-profit Organizations** Senior Advisor to the President	Chairman, TTY Biopharm Company Limited Chairman, TSH Biopharm Corporation Limited (Representative of TTY Biopharm Company Limited) Independent Director, Pegatron Corporation

2.3.2 Remuneration of Directors and Independent Directors (Note 1)

Unit: NT$

Title/Name	Director's Remuneration								Sum of (A+B+C+D) and Ratio to Net Income	
	Base Compensation (A)		Severance Pay and Pensions (B) (Note 7)		Compensation to Directors (C) (Note 8)		Allowances (D) (Note 9)			
	From TSMC	From All Consolidated Entities	From TSMC	From All Consolidated Entities	From TSMC	From All Consolidated Entities	From TSMC	From All Consolidated Entities	From TSMC	From All Consolidated Entities
Former Chairman Mark Liu (Note 2)	146,109,128	146,109,128	116,599	116,599	199,558,100	199,558,100	808,030	808,030	346,591,857 0.0296%	346,591,857 0.0296%
Chairman & CEO C.C. Wei (Note 3)	-	-	-	-	-	-	-	-	-	-
Director F.C. Tseng	-	-	-	-	13,337,425	13,337,425	1,086,975	1,086,975	14,424,400 0.0012%	14,424,400 0.0012%
Director National Development Fund, Executive Yuan Representative: Chin-Ching Liu (Note 4)	-	-	-	-	13,337,425	13,337,425	-	-	13,337,425 0.0011%	13,337,425 0.0011%
Independent Director Sir Peter L. Bonfield	-	-	-	-	21,397,147	21,397,147	-	-	21,397,147 0.0018%	21,397,147 0.0018%
Independent Director Kok-Choo Chen (Note 5)	-	-	-	-	7,949,011	7,949,011	-	-	7,949,011 0.0007%	7,949,011 0.0007%
Independent Director Michael R. Splinter	-	-	-	-	21,397,147	21,397,147	-	-	21,397,147 0.0018%	21,397,147 0.0018%
Independent Director Moshe N. Gavrielov	-	-	-	-	21,397,147	21,397,147	-	-	21,397,147 0.0018%	21,397,147 0.0018%
Independent Director Yancey Hai (Note 5)	-	-	-	-	7,949,011	7,949,011	-	-	7,949,011 0.0007%	7,949,011 0.0007%
Independent Director L. Rafael Reif	-	-	-	-	21,397,147	21,397,147	-	-	21,397,147 0.0018%	21,397,147 0.0018%
Independent Director Ursula M. Burns (Note 6)	-	-	-	-	11,276,780	11,276,780	-	-	11,276,780 0.0010%	11,276,780 0.0010%
Independent Director Lynn L. Elsenhans (Note 6)	-	-	-	-	11,276,780	11,276,780	-	-	11,276,780 0.0010%	11,276,780 0.0010%
Independent Director Chuan Lin (Note 6)	-	-	-	-	8,715,989	8,715,989	-	-	8,715,989 0.0007%	8,715,989 0.0007%
Total	146,109,128	146,109,128	116,599	116,599	358,989,109	358,989,109	1,895,005	1,895,005	507,109,841 0.0432%	507,109,841 0.0432%

*Other than disclosure in the above table, Directors remunerations earned by providing services (e.g. providing consulting services as a non-employee of parent company/all consolidated entities/non-consolidated affiliates) to TSMC and all consolidated entities in the 2024 financial statements: Dr. F.C. Tseng for NT$18,944,515.

Note 1: Directors and Independent Directors' remuneration policies, procedures, standards and structure, as well as the linkage to responsibilities, risks and time spent:
1. According to TSMC's Articles of Incorporation, the Board of Directors is authorized to determine the salary for the Chairman, Vice Chairman and Directors, taking into account the extent and value of the services provided for the management of the Corporation and the standards of the industry within the R.O.C. and overseas.
2. The Articles of Incorporation also provide that the compensation to directors shall be no more than 0.3% of annual profits and directors who also serve as executive officers of TSMC are not entitled to receive compensation to directors. According to TSMC's Compensation and People Development Committee Charter, the distribution of compensation to directors shall be made in accordance with TSMC's "Rules for Distribution of Compensation to Directors" based on the following principles: (1) directors who also serve as executive officers of the Company are not entitled to receive compensation; (2) the compensation for independent directors may be higher than other directors because they serve on multiple Committees, requiring their participation in discussions and resolutions according to each Committee's charter; and (3) the compensation for overseas independent directors may be higher than domestic independent directors, as they require additional time to attend quarterly meetings in Taiwan.

Note 2: Former Chairman Dr. Mark Liu retired after the Annual Shareholders' Meeting on June 4, 2024.
Note 3: Dr. C.C. Wei was elected as Chairman and Chief Executive Officer (CEO), effective June 4, 2024.
Note 4: Mr. Chin-Ching Liu was appointed as the representative of the National Development Fund succeeding Mr. Ming-Hsin Kung on June 6, 2024.
Note 5: The tenures of Independent Directors Ms. Kok-Choo Chen and Mr. Yancey Hai expired on June 4, 2024.
Note 6: Ms. Ursula M. Burns, Ms. Lynn L. Elsenhans, and Mr. Chuan Lin were elected as TSMC's independent director at TSMC's Annual Shareholders' Meeting on June 4, 2024.
Note 7: Pensions funded according to applicable law.
Note 8: The compensation of directors was expensed based on the estimated payment amounts. If the actual amounts subsequently paid differ from the above estimated amounts, the differences will be recorded in the year fully paid as a change in accounting estimate.
Note 9: The above-mentioned figures include expenses for Company cars and related reimbursements, but do not include compensation of Company drivers (totaled NT$3,666,280).
Note 10: Total remuneration of the directors from TSMC and from all consolidated entities in 2023, including their employee compensation, both accounted for 0.1411% of 2023 net income.

Compensation to a Director Who is an Employee of TSMC or of TSMC's Consolidated Entities								Sum of (A+B+C+D+E+F+G) and Ratio to Net Income (Note 10)		Compensation to Directors from Non-consolidated Affiliates or Parent Company
Base Compensation, Bonuses, and Allowances (E) (Note 9)		Severance Pay and Pensions (F) (Note 7)		Profit Sharing (G)						
				From TSMC		From All Consolidated Entities				
From TSMC	From All Consolidated Entities	From TSMC	From All Consolidated Entities	Cash	Stock (Fair Market Value)	Cash	Stock (Fair Market Value)	From TSMC	From All Consolidated Entities	
-	-	-	-	-	-	-	-	346,591,857 0.0296%	346,591,857 0.0296%	-
628,180,752	628,180,752	288,458	288,458	317,893,824	-	317,893,824	-	946,363,034 0.0807%	946,363,034 0.0807%	-
-	-	-	-	-	-	-	-	14,424,400 0.0012%	14,424,400 0.0012%	18,715,133
-	-	-	-	-	-	-	-	13,337,425 0.0011%	13,337,425 0.0011%	-
-	-	-	-	-	-	-	-	21,397,147 0.0018%	21,397,147 0.0018%	-
-	-	-	-	-	-	-	-	7,949,011 0.0007%	7,949,011 0.0007%	-
-	-	-	-	-	-	-	-	21,397,147 0.0018%	21,397,147 0.0018%	-
-	-	-	-	-	-	-	-	21,397,147 0.0018%	21,397,147 0.0018%	-
-	-	-	-	-	-	-	-	7,949,011 0.0007%	7,949,011 0.0007%	-
-	-	-	-	-	-	-	-	21,397,147 0.0018%	21,397,147 0.0018%	-
-	-	-	-	-	-	-	-	11,276,780 0.0010%	11,276,780 0.0010%	-
-	-	-	-	-	-	-	-	11,276,780 0.0010%	11,276,780 0.0010%	-
-	-	-	-	-	-	-	-	8,715,989 0.0007%	8,715,989 0.0007%	-
628,180,752	628,180,752	288,458	288,458	317,893,824	0	317,893,824	0	1,453,472,875 0.1239%	1,453,472,875 0.1239%	18,715,133

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2.4 Management Team

2.4.1 Information Regarding Management Team

Title Name	Gender	Nationality	On-board Date (Note 1)	Shares Held		Shares Held by Spouse & Minors		Shares Held in the Name of Others	
				Shares (Note 2)	%	Shares (Note 2)	%	Shares (Note 2)	%
Chairman & Chief Executive Officer C.C. Wei (Note 3)	Male	R.O.C.	02/01/1998	6,392,834	0.02%	700,261	0.00%	-	-
Executive Vice President and Co-Chief Operating Officer Co-COO Office & Operations Y.P. Chyn (Note 4)	Male	R.O.C.	01/01/1987	4,932,964	0.02%	4,190,107	0.02%	-	-
Executive Vice President and Co-Chief Operating Officer Co-COO Office & Research and Development Y.J. Mii (Note 4)	Male	R.O.C.	11/14/1994	1,016,273	0.00%	-	-	-	-
Senior Vice President and Deputy Co-Chief Operating Officer Chief Information Security Officer Cliff Hou (Note 5 and Note 6)	Male	R.O.C.	12/15/1997	447,117	0.00%	60,802	0.00%	-	-
Senior Vice President and Deputy Co-Chief Operating Officer Business Development & Global Sales Kevin Zhang (Note 5)	Male	U.S.	11/01/2016	115,867	0.00%	-	-	-	-
Senior Vice President Human Resources Lora Ho	Female	R.O.C.	06/01/1999	4,414,753	0.02%	2,059,530	0.01%	-	-
Senior Vice President Corporate Strategy Development Wei-Jen Lo	Male	R.O.C.	07/01/2004	1,282,328	0.00%	-	-	-	-
Senior Vice President Corporate Strategy Development Chairman TSMC AZ Rick Cassidy	Male	U.S.	11/14/1997	-	-	-	-	-	-
Senior Vice President Corporate Strategy Development Former Chief Information Security Officer J.K. Lin (Note 6)	Male	R.O.C.	01/01/1987	12,660,501	0.05%	1,219,961	0.00%	-	-
Senior Vice President and General Counsel Corporate Governance Officer Legal Sylvia Fang	Female	R.O.C.	03/20/1995	707,793	0.00%	67,906	0.00%	384,000	0.00%
Senior Vice President and Chief Financial Officer Spokesperson Finance Wendell Huang	Male	R.O.C.	05/03/1999	1,660,221	0.01%	-	-	-	-

As of 02/28/2025

Education and Selected Past Positions	Selected Current Positions at Other Companies	Managers Who Are Spouses or within Second-degree Relative of Consanguinity to Each Other		
		Title	Name	Relation
Ph.D., Electrical Engineering, Yale University, U.S. Chief Executive Officer, TSMC President and Co-Chief Executive Officer, TSMC Executive Vice President and Co-Chief Operating Officer, TSMC Senior Vice President, Business Development, TSMC Senior Vice President, Mainstream Technology Business, TSMC Senior Vice President, Chartered Semiconductor Manufacturing Ltd.	None	None	None	None
Master, Electrical Engineering, National Cheng Kung University, Taiwan Senior Vice President, Operations & Overseas Operations Office, TSMC Senior Vice President, Product Development, TSMC Vice President, Advanced Technology and Business, TSMC	Director, TSMC subsidiaries	None	None	None
Ph.D., Electrical Engineering, University of California, Los Angeles, U.S. Senior Vice President, Research and Development, TSMC Vice President, Technology Development, TSMC Senior Director, Platform I Division, TSMC	None	None	None	None
Ph.D., Electrical Engineering, Syracuse University, U.S. Senior Vice President, Europe & Asia Sales and Research & Development/Corporate Research, TSMC Senior Vice President, Technology Development, TSMC Vice President, Design and Technology Platform, TSMC Senior Director, Design and Technology Platform, TSMC	Director, TSMC subsidiary	None	None	None
Ph.D., Electrical Engineering, Duke University, U.S. Senior Vice President, Business Development & Overseas Operations Office, TSMC Vice President, Design and Technology Platform, TSMC Vice President, Technology and Manufacturing Group, Intel Corp.	None	None	None	None
Master, Business Administration, National Taiwan University, Taiwan Senior Vice President, Europe and Asia Sales, TSMC Senior Vice President, Chief Financial Officer/Spokesperson, TSMC Senior Director, Accounting, TSMC Vice President & CFO, TI-Acer Semiconductor Manufacturing Corp.	Director and/or Supervisor, TSMC subsidiaries	None	None	None
Ph.D., Solid State Physics and Surface Chemistry, University of California, Berkeley, U.S. Senior Vice President, Research and Development, TSMC Vice President, Technology Development, TSMC Vice President, Manufacturing Technology, TSMC Vice President, Advanced Technology Business, TSMC Vice President, Operations II, TSMC Director, Advanced Technology Development and CTM Plant Manager, Intel Corp.	None	None	None	None
Bachelor, Engineering Technology, United States Military Academy at West Point, U.S. Senior Vice President, Corporate Strategy Office & Overseas Operations Office, TSMC Chief Executive Officer, TSMC North America President, TSMC North America Vice President, TSMC North America	Director, TSMC subsidiary	None	None	None
Bachelor, Science, National Changhua University of Education, Taiwan Senior Vice President, Information Technology and Materials Management & Risk Management, TSMC Vice President, Mainstream Fabs and Manufacturing Technology, TSMC Senior Director, Mainstream Fabs, TSMC	None	None	None	None
Master, Comparative Law, School of Law, University of Iowa, U.S. Attorney-at-law, Taiwan Vice President and General Counsel Corporate Governance Officer, Legal, TSMC Associate General Counsel, TSMC Senior Associate, Taiwan International Patent and Law Office (TIPLO)	Director and/or Supervisor, TSMC subsidiaries	None	None	None
Master, Business Administration, Cornell University, U.S. Vice President and Chief Financial Officer, Finance, TSMC Deputy Chief Financial Officer, TSMC Senior Director, Finance Division, TSMC Vice President, Corporate Finance, ING Barings Vice President, Corporate Finance, Chase Manhattan Bank Vice President, Corporate Finance, Bankers Trust Company	Director, Supervisor, and/or President, TSMC subsidiaries Director, TSMC affiliate	None	None	None

(Continued)

Title Name	Gender	Nationality	On-board Date (Note 1)	Shares Held		Shares Held by Spouse & Minors		Shares Held in the Name of Others	
				Shares (Note 2)	%	Shares (Note 2)	%	Shares (Note 2)	%
Vice President Operations/Fab Operations I CEO TSMC AZ Y.L. Wang	Male	R.O.C.	06/01/1992	226,043	0.00%	1,135,529	0.00%	-	-
Vice President and TSMC Distinguished Fellow Research and Development/Pathfinding for System Integration Douglas Yu	Male	R.O.C.	12/28/1994	258,496	0.00%	-	-	-	-
Vice President and TSMC Fellow Operations/Advanced Technology and Mask Engineering T.S. Chang	Male	R.O.C.	02/06/1995	181,289	0.00%	-	-	-	-
Vice President Research and Development/Platform Technology Research and Development/Technology Development Effectiveness Office Michael Wu	Male	R.O.C.	12/09/1996	493,404	0.00%	198,943	0.00%	-	-
Vice President Research and Development/Corporate Research Research and Development/Pathfinding Min Cao	Male	U.S.	07/29/2002	371,055	0.00%	34,470	0.00%	-	-
Vice President Operations/Fab Operations II CEO JASM Y.H. Liaw	Male	R.O.C.	08/03/1988	375,532	0.00%	-	-	430,000	0.00%
Vice President Research and Development/Advanced Tool and Module Development Simon Jang	Male	R.O.C.	09/01/1993	356,832	0.00%	2,000	0.00%	-	-
Vice President Research and Development/More than Moore Technologies C.S. Yoo	Male	R.O.C.	06/16/1988	1,709,617	0.01%	219,924	0.00%	851,908	0.00%
Vice President Operations/Advanced Packaging Technology and Service Jun He	Male	R.O.C.	05/22/2017	33,310	0.00%	-	-	-	-
Vice President Research and Development/Platform Technology Geoffrey Yeap	Male	U.S.	03/21/2016	79,532	0.00%	-	-	-	-
Vice President and Chief Information Officer Corporate Information Technology Chris Horng-Dar Lin	Male	U.S.	01/04/2021	41,137	0.00%	15,000	0.00%	-	-
Vice President Corporate Planning Organization Jonathan Lee	Male	R.O.C.	05/28/2007	404,120	0.00%	6,000	0.00%	-	-
Vice President Operations /Facility Arthur Chuang	Male	R.O.C.	01/17/1989	2,608,118	0.01%	1,993,140	0.01%	-	-
Vice President and TSMC Fellow Research and Development/Design & Technology Platform L.C. Lu	Male	R.O.C.	08/01/2000	180,957	0.00%	15,000	0.00%	-	-

Education and Selected Past Positions	Selected Current Positions at Other Companies	Managers Who Are Spouses or within Second-degree Relative of Consanguinity to Each Other		
		Title	Name	Relation
Ph.D., Electrical Engineering, National Chiao Tung University, Taiwan Vice President, Fab Operations, TSMC Vice President, Technology Development, TSMC Vice President, Fab 14B, TSMC Senior Director, Fab 14B, TSMC	Director, TSMC subsidiary	None	None	None
Ph.D., Materials Engineering, Georgia Institute of Technology, U.S. Vice President, Integrated Interconnect & Packaging, TSMC Senior Director, Integrated Interconnect & Packaging Division, TSMC	None	None	None	None
Ph.D., Electrical Engineering, National Tsing Hua University, Taiwan Vice President, Product Development, TSMC Vice President, Fab 12B, TSMC Senior Director, Fab 12B, TSMC	None	None	None	None
Ph.D., Electrical Engineering, University of Wisconsin-Madison, U.S. Senior Director, Platform Development, TSMC	None	None	None	None
Ph.D., Physics, Stanford University, U.S. Senior Director, Pathfinding Division, TSMC	None	None	None	None
Master, Chemical Engineering, National Tsing Hua University, Taiwan Vice President, Fab Operations, TSMC Vice President, Fab 15B, TSMC Senior Director, Fab 15B, TSMC	Director, TSMC subsidiaries Director, TSMC affiliate	None	None	None
Ph.D., Materials Science & Engineering, Massachusetts Institute of Technology, U.S. Senior Director, Advanced Tool and Module Development Division, TSMC	None	Deputy Director	Sharon Jang	Sister
Ph.D., Chemical Engineering, Worcester Polytech. Institute, U.S. Vice President, Europe & Asia Sales, TSMC Senior Director, Office of Strategy Customer Program, TSMC Senior Director, E-Beam Operation Division, TSMC	Director, TSMC affiliate	None	None	None
Ph.D., Materials Science and Engineering, University of California, Santa Barbara, U.S. Vice President, Quality and Reliability, TSMC Senior Director, Quality and Reliability, TSMC Senior Director, Head of Quality and Reliability for Technology & Manufacturing Group, Intel Corp.	Director, TSMC subsidiaries	None	None	None
Ph.D., Electrical and Computer Engineering, University of Texas-Austin, U.S. Senior Director, Platform Development, TSMC Senior Director, Advanced Technology, TSMC Vice President, Engineering, Silicon Technology, Qualcomm	None	None	None	None
Ph.D., Electrical Engineering and Computer Science, University of California, Berkeley, U.S. Vice President, Information Technology, Mozilla Director, Enterprise Platform Infrastructure, Facebook	None	None	None	None
Master, Business Administration, City University of New York, Baruch College, U.S. Senior Director, Strategic Planning Division, TSMC	None	None	None	None
Ph.D., Civil Engineering, National Taiwan University, Taiwan Senior Director, Facility Division, TSMC	None	Technical Manager	Gavin Chuang	Brother
Ph.D., Computer Science, Yale University, U.S. Senior Director, Digital IPs Solution Division, TSMC	Director, and/or President, TSMC subsidiaries Director, TSMC affiliate	None	None	None

(Continued)

Title Name	Gender	Nationality	On-board Date (Note 1)	Shares Held		Shares Held by Spouse & Minors		Shares Held in the Name of Others	
				Shares (Note 2)	%	Shares (Note 2)	%	Shares (Note 2)	%
Vice Preudent Research and Development/Integrated Interconnect & Packaging K.C. Hsu	Male	R.O.C.	11/01/2021	90,927	0.00%	10,000	0.00%	-	-
Vice President Operations/Fab Operations I Managing Director ESMC Ray Chuang	Male	R.O.C.	12/15/1997	180,318	0.00%	106,000	0.00%	-	-
Vice President Materials Management Vanessa Lee (Note 7)	Female	R.O.C.	05/04/2022	9,310	0.00%	-	-	-	-
Vice President Human Resources P.H. Chen (Note 8)	Male	R.O.C.	08/01/1990	433,414	0.00%	83,143	0.00%	-	-

Note 1: On-board date means the official date joining TSMC.
Note 2: Dose not include shares held in the form of ADSs.
Note 3: Rationale for electing the same person as Chief Executive Officer (CEO) and Chairman: To navigate the rapidly changing landscape of the highly competitive semiconductor industry, TSMC's Board of Directors elected Dr. C.C. Wei as the Chairman and CEO following the Board's re-election at the Annual Shareholders' Meeting on June 4, 2024. With Dr. Wei at the helm, the alignment between the Board of Directors and the management team is expected to be more effective, enhancing efficiency in decision-making and execution and maximizing shareholder value. The Company currently has seven independent directors, accounting for 70% of the total board seats. The remaining directors do not hold managerial or employee roles within the Company, ensuring the Board's independence in decision-making while enabling professional oversight and guidance that meet shareholder and market expectations for the Company's stability and long-term value.
Note 4: Mr. Y.P. Chyn and Dr. Y.J. Mii were appointed as Executive Vice Presidents and Co-Chief Operating Officers, effective March 1, 2024.
Note 5: Dr. Cliff Hou and Dr. Kevin Zhang were appointed as Senior Vice Presidents and Deputy Co-Chief Operating Officers, effective March 1, 2024.
Note 6: Dr. Cliff Hou was appointed as Chief Information Security Officer, effective January 1, 2025.
Note 7: Ms. Vanessa Lee was promoted to Vice President, effective August 13, 2024.
Note 8: Mr. P.H. Chen was promoted to Vice President, effective February 12, 2025.

Education and Selected Past Positions	Selected Current Positions at Other Companies	Managers Who Are Spouses or within Second-degree Relative of Consanguinity to Each Other		
		Title	Name	Relation
Master, Technology Management, National Chiao Tung University, Taiwan Taiwan Country Manager, Micron Technology Inc. President, WaferTech LLC	None	None	None	None
Master, Materials Science & Engineering/Engineering Economics System, Stanford University, U.S. Senior Director, Fab 18A, TSMC Director, Fab 12B, TSMC	Director, TSMC subsidiary	None	None	None
Master, Chemistry, National Taiwan University, Taiwan Senior Director, Materials Management, TSMC Global Commodity Manager, Google Director of Procurement, Apple Senior Sourcing Manager, Qualcomm	None	None	None	None
Master, Chemistry, National Sun Yat-sen University, Taiwan Senior Director, Program Office, TSMC Senior Fab Director, Fab 14A, TSMC	None	None	None	None

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2.4.2 Compensation of CEO and Vice Presidents (Note 1)

Unit: NT$

Title	Name	Salary (A)		Severance Pay and Pensions (B) (Note 7)	
		From TSMC	From All Consolidated Entities	From TSMC	From All Consolidated Entities
Chairman & Chief Executive Officer	C.C. Wei (Note 2)	16,025,450	16,025,450	288,458	288,458
Senior Vice President, Chief Financial Officer/Spokesperson	Wendell Huang	6,601,500	6,601,500	118,827	118,827
Executive Vice President and Co-Chief Operating Officer	Y.P. Chyn (Note 3)				
Executive Vice President and Co-Chief Operating Officer	Y.J. Mii (Note 3)				
Senior Vice President and Deputy Co-Chief Operating Officer	Cliff Hou (Note 4 and Note 5)				
Senior Vice President and Deputy Co-Chief Operating Officer	Kevin Zhang (Note 4)				
Senior Vice President	Lora Ho				
Senior Vice President	Wei-Jen Lo				
Senior Vice President/Chairman, TSMC Arizona	Rick Cassidy				
Senior Vice President/Former Chief Information Security Officer	J.K. Lin				
Senior Vice President and General Counsel/Corporate Governance Officer	Sylvia Fang				
Vice President/CEO, TSMC Arizona	Y.L. Wang				
Vice President and TSMC Distinguished Fellow	Douglas Yu				
Vice President and TSMC Fellow	T.S. Chang				
Vice President	Michael Wu	145,025,473	184,081,311	2,610,461	3,306,568
Vice President	Min Cao				
Vice President/CEO, JASM	Y.H. Liaw				
Vice President	Simon Jang				
Vice President	C.S. Yoo				
Vice President	Jun He				
Vice President	Geoffrey Yeap				
Vice President and Chief Information Officer	Chris Horng-Dar Lin				
Vice President	Jonathan Lee				
Vice President	Arthur Chuang				
Vice President and TSMC Fellow	L.C. Lu				
Vice President	K.C. Hsu				
Vice President/Managing Director, ESMC	Ray Chuang				
Vice President	Vanessa Lee (Note 6)				
Total		167,652,423	206,708,261	3,017,746	3,713,853

Note 1: The total compensation of the executive officers is based on their job responsibility, contribution, company performance, and effective risk management. This includes traditional financial measures like company performance (revenue growth, return on equity, alongside risk-indicators). By maintaining a balanced perspective, the company is committed to achieve sustainable growth and risk-conscious performance. It is reviewed by the Compensation and People Development Committee then submitted to the Board of Directors for approval.
Note 2: Dr. C.C. Wei was elected as Chairman and Chief Executive Officer (CEO), effective June 4, 2024.
Note 3: Mr. Y.P. Chyn and Dr. Y.J. Mii were appointed as Executive Vice Presidents and Co-Chief Operating Officers, effective March 1, 2024.
Note 4: Dr. Cliff Hou and Dr. Kevin Zhang were appointed as Senior Vice Presidents and Deputy Co-Chief Operating Officers, effective March 1, 2024.
Note 5: Dr. Cliff Hou was appointed as Chief Information Security Officer, effective January 1, 2025.
Note 6: Ms. Vanessa Lee was promoted to Vice President, effective August 13, 2024. These amounts did not include compensation for the period before his promotion.
Note 7: Pensions funded according to applicable law.
Note 8: The above-mentioned figures include the expense for the business performance bonuses distributed in May, August, November 2024 & February 2025, and Company cars and gasoline reimbursements
Note 9: Total compensation of the executive officers from TSMC in 2023 accounted for 0.3768% of 2023 net income. Total compensation of the executive officers from all consolidated entities in 2023 accounted for 0.4033% of 2023 net income.

Bonuses and Allowances (C) (Note 8)		Profit Sharing (D)				Sum of (A+B+C+D) and Ratio to Net Income (Note 9)		Compensation from Non-consolidated Affiliates or Parent Company
From TSMC	From All Consolidated Entities	From TSMC		From All Consolidated Entities		From TSMC	From All Consolidated Entities	
		Cash	Stock (Fair Market Value)	Cash	Stock (Fair Market Value)			
612,155,302	612,155,302	317,893,824	-	317,893,824	-	946,363,034 0.0807%	946,363,034 0.0807%	-
112,897,199	112,897,199	70,738,960	-	70,738,960	-	190,356,486 0.0162%	190,356,486 0.0162%	-
2,369,188,194	2,547,162,205	1,426,724,855	-	1,426,724,855	-	3,943,548,983 0.3361%	4,161,274,939 0.3547%	-
3,094,240,695	3,272,214,706	1,815,357,639	0	1,815,357,639	0	5,080,268,503 0.4330%	5,297,994,459 0.4516%	-

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The Company's Policy, Standards/Packages, Procedures for the Compensation of the CEO and Vice Presidents, and the Linkage to Their Performance Evaluation and the Future Risk Exposure:

- **The Company's Policy, Standards/Packages**

The compensation of the CEO and Vice Presidents takes into account, in a comprehensive manner, aspects of their experience, professional capabilities, managerial skills, and the positions they hold. The said compensation is also closely linked to both the financial and non-financial performance goals, so as to reflect the fulfillment of their responsibilities as well as their work performance. Compensation includes salary, quarterly paid cash bonus, allowances, and profit sharing based on annual profits of the Company. Moreover, since 2021, TSMC has begun to offer Employee Restricted Stock Awards to link their compensation with shareholders' interests and ESG achievements. The company places a greater emphasis on variable compensation constituting a larger proportion of the total compensation versus fixed compensation, and prioritizes long-term incentive rewards to better align the compensation of our CEO and executives with the company's sustainable business performance, shareholder interests, and ESG achievements. The Compensation and People Development Committee approves the compensation plan regularly, which is then submitted to the Board of Directors for approval.

- **The Procedures**

Quarterly cash bonuses and profit-sharing are for the purpose of rewarding employee contributions, incentivizing employees to continue to work hard, and aligning employee interests with those of TSMC's shareholders. According to Articles of Incorporation, if the Company is profitable for the year, at least 1% of the profits will be allocated as employee compensation. The frequency, date, and conditions of the distribution of employee compensation will be determined according to the Company's bonus policy. The Company further determines the bonus and profit-sharing amounts based on operating results and common domestic industry practice. The amount and distribution of the employee bonuses are recommended by the Compensation and People Development Committee to the Board of Directors for approval. Cash bonuses are paid quarterly, and profit sharing are paid after approval at the Board of Directors meeting and having reported the same at the Shareholders' meeting.

TSMC established Employee Restricted Stock Awards to link the compensation for CEO and Vice Presidents with ESG achievements and the interests of shareholders. The number of shares granted to the CEO and Vice Presidents will be determined by the Chairman and CEO by taking into account the Company's business performance, the individual's job grade, performance, and other factors as deemed appropriate and approved by Compensation and People Development Committee, and ultimately subject to Board of Directors' approval.

- **The Linkage to The Performance Evaluation**

The compensation of TSMC's CEO and Vice Presidents is governed by the Company's bonus policy, which covers the achievement of both corporate operational goals and personal annual objectives. Corporate goals include financial indicators and non-financial indicators. Personal annual objectives include operational goals and ESG achievements in focus areas: Drive Green Manufacturing, Build a Sustainable Supply Chain, Create a Healthy and Inclusive Workplace, Develop Talent, and Care for the Disadvantaged. The Employee Restricted Stock Awards provided has a vesting period of three years (for details, please refer to "4.6.1. Status of Employee Restricted Stock" on page 84-91 of this Annual Report). The corporate performance indicators are the relative total shareholder return (TSR) of the company compared to TSR of the S&P 500 IT Index, with the company's ESG achievements as a modifier. Through these two clear quantitative indicators, we strengthen management's long-term and continuous creation of shareholder value while improving ESG performance, which shows a strong correlation with the Company's overall performance.

- **The Future Risk Exposure**

The compensation of TSMC's CEO and Vice Presidents is based on the relevant industry benchmarks and the performance of the Company. The standards, structure, and system of compensation are reviewed and adjusted as necessary in response to changes in the Company's actual operating conditions and relevant laws and regulations. The Company's financial incentive programs are tied to meeting risk-related goals and the pursue of Company's objectives are within the Company's risk appetite and tolerance.

- **Clawback Policy**

TSMC established the Clawback policy in 2023. (Disclosed on tsmc.com/Home/Investors/Corporate Governance/Major Internal Policies/ TSMC Clawback Policy)

Compensation of CEO and Vice Presidents

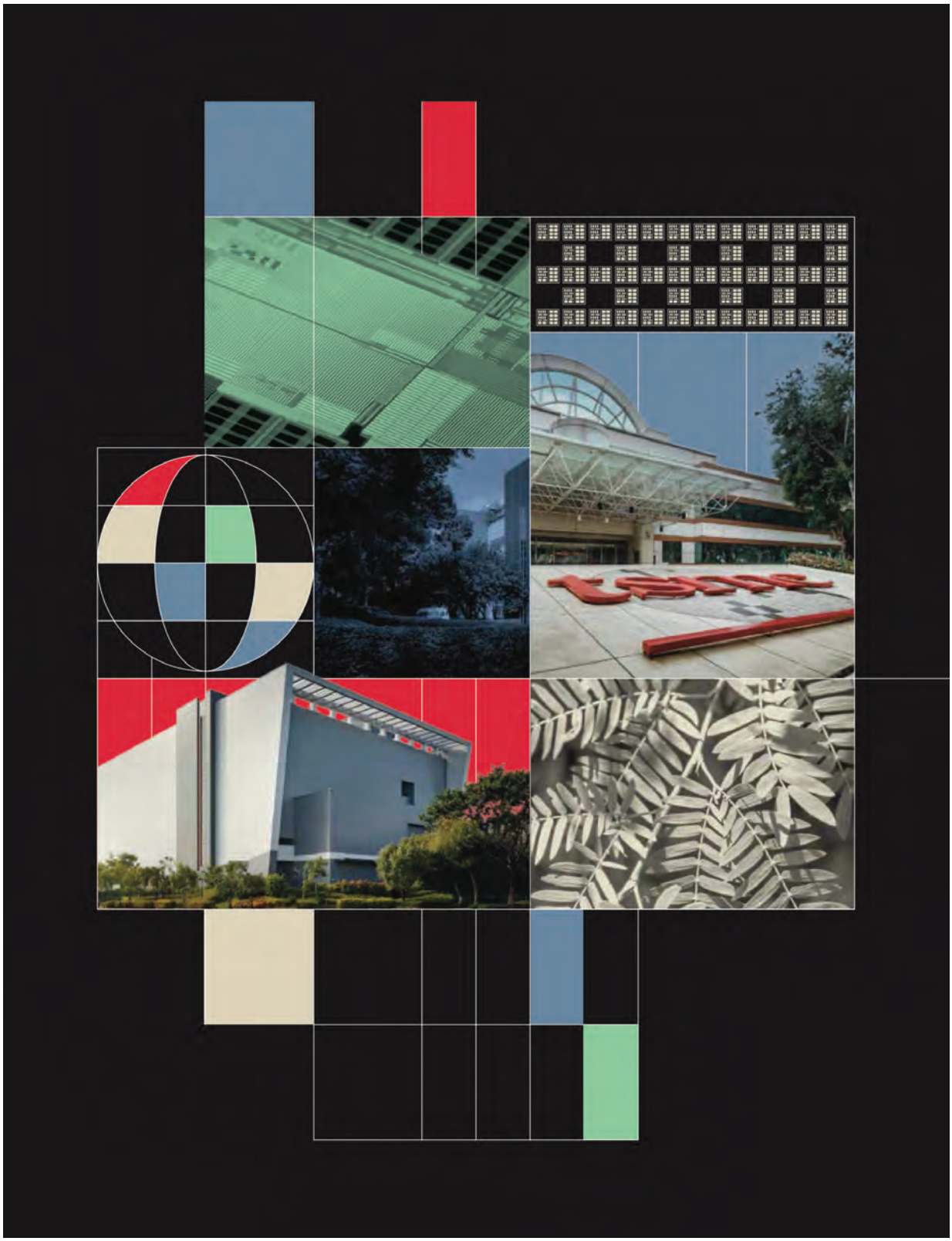
	2024	
	From TSMC	From All Consolidated Entities and Non-consolidated Affiliates
NT$0 ~ NT$999,999	Rick Cassidy	None
NT$1,000,000 ~ NT$1,999,999	None	None
NT$2,000,000 ~ NT$3,499,999	None	None
NT$3,500,000 ~ NT$4,999,999	None	None
NT$5,000,000 ~ NT$9,999,999	None	None
NT$10,000,000 ~ NT$14,999,999	None	None
NT$15,000,000 ~ NT$29,999,999	None	None
NT$30,000,000 ~ NT$49,999,999	Vanessa Lee	Vanessa Lee
NT$50,000,000 ~ NT$99,999,999	Jun He, Arthur Chuang, Ray Chuang	Jun He, Arthur Chuang, Ray Chuang
Over NT$100,000,000	C.C. Wei, Wendell Huang, Y.P. Chyn, Y.J. Mii, Cliff Hou, Kevin Zhang, Lora Ho, Wei-Jen Lo, J.K. Lin, Sylvia Fang, Y.L. Wang, Douglas Yu, T.S. Chang, Michael Wu, Min Cao, Y.H. Liaw, Simon Jang, C.S. Yoo, Geoffrey Yeap, Chris Horng-Dar Lin, Jonathan Lee, L.C. Lu, K.C. Hsu	C.C. Wei, Wendell Huang, Y.P. Chyn, Y.J. Mii, Cliff Hou, Kevin Zhang, Lora Ho, Wei-Jen Lo, Rick Cassidy, J.K. Lin, Sylvia Fang, Y.L. Wang, Douglas Yu, T.S. Chang, Michael Wu, Min Cao, Y.H. Liaw, Simon Jang, C.S. Yoo, Geoffrey Yeap, Chris Horng-Dar Lin, Jonathan Lee, L.C. Lu, K.C. Hsu
Total	28	28

2.4.3 Employees' Profit Sharing of Management Team

Unit: NT$

Title	Name	Stock (Fair Market Value)	Cash	Total	Total Profit Sharing of Management Team as a % of Net Income
Chairman & Chief Executive Officer	C.C. Wei (Note 1)	-	317,893,824	317,893,824	0.0271%
Senior Vice President, Chief Financial Officer/Spokesperson	Wendell Huang	-	70,738,960	70,738,960	0.0060%
Executive Vice President and Co-Chief Operating Officer	Y.P. Chyn (Note 2)				
Executive Vice President and Co-Chief Operating Officer	Y.J. Mii (Note 2)				
Senior Vice President and Deputy Co-Chief Operating Officer	Cliff Hou (Note 3 and Note 4)				
Senior Vice President and Deputy Co-Chief Operating Officer	Kevin Zhang (Note 3)				
Senior Vice President	Lora Ho				
Senior Vice President	Wei-Jen Lo				
Senior Vice President/Chairman, TSMC Arizona	Rick Cassidy				
Senior Vice President/Former Chief Information Security Officer	J.K. Lin				
Senior Vice President and General Counsel/Corporate Governance Officer	Sylvia Fang				
Vice President/CEO, TSMC Arizona	Y.L. Wang				
Vice President and TSMC Distinguished Fellow	Douglas Yu				
Vice President and TSMC Fellow	T.S. Chang				
Vice President	Michael Wu	-	1,426,724,855	1,426,724,855	0.1216%
Vice President	Min Cao				
Vice President/CEO, JASM	Y.H. Liaw				
Vice President	Simon Jang				
Vice President	C.S. Yoo				
Vice President	Jun He				
Vice President	Geoffrey Yeap				
Vice President and Chief Information Officer	Chris Horng-Dar Lin				
Vice President	Jonathan Lee				
Vice President	Arthur Chuang				
Vice President and TSMC Fellow	L.C. Lu				
Vice President	K.C. Hsu				
Vice President/Managing Director, ESMC	Ray Chuang				
Vice President	Vanessa Lee (Note 5)				
Total		-	1,815,357,639	1,815,357,639	0.1547%

Note 1: Dr. C.C. Wei was elected as Chairman and Chief Executive Officer (CEO), effective June 4, 2024.
Note 2: Mr. Y.P. Chyn and Dr. Y.J. Mii were appointed as Executive Vice Presidents and Co-Chief Operating Officers, effective March 1, 2024.
Note 3: Dr. Cliff Hou and Dr. Kevin Zhang were appointed as Senior Vice Presidents and Deputy Co-Chief Operating Officers, effective March 1, 2024.
Note 4: Dr. Cliff Hou was appointed as Chief Information Security Officer, effective January 1, 2025.
Note 5: Ms. Vanessa Lee was promoted to Vice President, effective August 13, 2024. These amounts did not include compensation for the period before her promotion.



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Corporate Governance

It is TSMC's core values of Integrity, Commitment, Innovation, and Customer Trust that have earned our customers' confidence to grow and prosper together.

3.1 Overview

TSMC advocates and acts upon the principles of operational transparency and respect for shareholder rights. We believe that the basis for successful corporate governance is a sound and effective Board of Directors. In line with this principle, TSMC Board of Directors delegates various responsibilities and authority to three Board Committees, Audit and Risk Committee, Compensation and People Development Committee, and Nominating, Corporate Governance and Sustainability Committee. Each Committee's chairperson regularly reports to the Board on its activities and recommendations.

3.2 Board of Directors

Board Structure

TSMC's Chairman, Dr. Mark Liu, retired from the Company after the Annual Shareholders' Meeting on June 4, 2024. At the meeting, TSMC shareholders elected a new Board of Directors, which then convened to elect Dr. C.C. Wei as Chairman and Chief Executive Officer (CEO).

TSMC's Board of Directors consists of ten distinguished members with a great breadth of experience as world-class business leaders or professionals. We deeply rely on them for their diverse knowledge, personal perspectives, and solid business judgment. These professionals include citizens from Taiwan, Europe and the U.S. with world-class business operating experience. The current board members are: Chairman Dr. C.C. Wei, Dr. F.C. Tseng, Mr. Chin-Ching Liu (Representative of the National Development Fund, Executive Yuan), Sir Peter L. Bonfield (Independent Director), Mr. Michael R. Splinter (Independent Director), Mr. Moshe N. Gavrielov (Independent Director), Dr. L. Rafael Reif (Independent Director), Ms. Ursula M. Burns (Independent Director), Ms. Lynn L Elsenhans (Independent Director), and Dr. Chuan Lin (Independent Director).

Board Responsibilities

Inheriting the spirit of TSMC's Founder, Dr. Morris Chang's philosophy on corporate governance, under the leadership of Chairman Dr. C.C. Wei, TSMC's Board of Directors takes a serious and forthright approach to its duties and is a dedicated, competent and independent Board.

The Board's primary duty is to supervise the Company's compliance with relevant laws and regulations, financial transparency, timely disclosure of material information, and maintaining of the highest integrity. TSMC's Board of Directors strives to perform these responsibilities through its Audit and Risk Committee, Compensation and People Development Committee, Nominating, Corporate Governance and Sustainability Committee, the hiring of a financial expert consultant for the Audit and Risk Committee, and coordination with our Internal Audit department.

The second duty of the Board of Directors is to appoint and dismiss officers of the Company when necessary, to evaluate management performance and to review the succession plan for senior executives. TSMC's management has maintained a healthy and functional communication with the Board of Directors, has been devoted in executing guidance of the Board, and is dedicated in running the business operations, all to achieve the best interests for TSMC shareholders.

The third duty of the Board of Directors is to resolve critical matters, such as capital appropriations, investment activities, dividends, etc.

The fourth duty of the Board of Directors is to provide guidance to the Company's management team and risk management. In each quarter, TSMC's management reports to the Board on various subjects (including ESG programs) and strategies, and spends

substantial time and effort to communicate with the Board. The Board would comment on the risk and probabilities for success of the proposed corporate strategies. The Board also periodically oversees those strategies' implementation and outcomes, and may suggest the management team to make adjustments to the strategic goals and objectives if necessary.

Nomination and Election of Directors

TSMC envisions the membership of its esteemed Board of Directors to be composed of highly ethical professionals with the necessary knowledge, experience as world-class business leaders and understanding from diverse backgrounds. TSMC's Board of Directors members are nominated via rigorous selection processes. The Company established the "Guidelines for Nomination of Directors," which detail the procedures and criteria for the nominating, qualifying and evaluating director candidates for consideration by the Board of Directors. Additionally, the "Corporate Governance Guidelines" outline the criteria for evaluating candidates for election by shareholders. These criteria include professional knowledge, experience, business judgment, commitment to the Company's core values, and reputation for ethical conduct and leadership. Diversity of backgrounds (including gender, age, and culture) of Board members shall also be considered. The "Nominating, Corporate Governance and Sustainability Committee" will recommend Independent Director candidates to the Board of Directors for nomination. The independence of each Independent Director candidate is also considered and assessed under relevant laws.Directors shall be elected pursuant to the candidate nomination system specified in Article 192-1 of the R.O.C. Company Law. The tenure of office for Directors shall be three years. Under R.O.C. law, in which TSMC was incorporated, any shareholders holding one percent or more of our total outstanding common shares may nominate their own candidate to stand for election as a Board member. This democratic mechanism allows our shareholders to become involved in the selection and nomination process of Board candidates. The final slate of candidates is put to the shareholders for voting at the relevant annual shareholders' meeting.

Taking the position that directors who over time have developed increasing knowledge, experience and insight into the semiconductor industry and deeper understanding of the operations of the Company can better perform their duties and provide an increasing contribution and value to the shareholders of the Company. Except as otherwise provided in applicable regulations regarding the tenure limits of independent directors, there are no limits on the number of terms that a director may serve. The Board will, however, assess director tenure on an on-going basis to ensure the Board continues to benefit from new perspectives.

Directors' Compensation

According to TSMC's Articles of Incorporation, the Board of Directors is authorized to determine the salary for the Chairman, Vice Chairman and Directors, taking into account the extent and value of the services provided for the management of the Corporation and the standards of the industry within the R.O.C. and overseas.

TSMC's Articles of Incorporation also state that not more than 0.3 percent of our annual profits may be distributed as compensation to our directors. In addition, directors who also serve as executive officers of the Company are not entitled to receive any director compensation. According to TSMC's Compensation and People Development Committee Charter, the distribution of compensation to directors shall be made in accordance with TSMC's "Rules for Distribution of Compensation to Directors" based on the following principles: (1) directors who also serve as executive officers of the Company are not entitled to receive compensation; (2) the compensation for Independent Directors may be higher than other Directors because they serve on multiple Committees, requiring their participation in discussions and resolutions according to each Committee's charter; and (3) the compensation for overseas Independent Directors may be higher than domestic Independent Directors, as they require additional time to attend quarterly meetings in Taiwan.

Directors' Professional Qualifications and Independent Directors' Independence Status

Criteria / Name/Title	Professional Qualification and Experience	Independent Directors' Independence Status	Number of Other Taiwanese Public Companies Concurrently Serving as an Independent Director
C.C. Wei Chairman and Chief Executive Officer	For Directors' professional qualification and experience, please refer to "2.3.1 Information Regarding Board Members" on page 20-27 of this Annual Report. None of the Directors has been in or is under any circumstances stated in Article 30 of the Company Law. (Note 1)	Not Applicable	
F.C. Tseng Director			
Chin-Ching Liu Director			
Sir Peter L. Bonfield Independent Director		1. All Independent Directors meet the requirements outlined in Article 14-2 of "Securities and Exchange Act" and "Regulations Governing Appointment of Independent Directors and Compliance Matters for Public Companies" (Note 2) issued by Taiwan's Financial Supervisory Commission 2. For information on Independent Directors (or nominee arrangement) as well as his/her spouse and minor children's shareholding of TSMC common shares, please refer to "2.3.1 Information Regarding Board Members" on page 20-27 of this Annual Report 3. None of the Independent Directors have received compensation or benefits for providing to the Company or its affiliates: (1) any audit service; or (2) commercial, legal, financial, accounting services or other services within the recent two years	0
Michael R. Splinter Independent Director			0
Moshe N. Gavrielov Independent Director			0
L. Rafael Reif Independent Director			0
Ursula M. Burns Independent Director			0
Lynn L. Elsenhans Independent Director			0
Chuan Lin Independent Director			1

Note 1: 1. Having committed an offence as specified in the Statute for Prevention of Organizational Crimes and subsequently convicted of a crime, and has not started serving the sentence, has not completed serving the sentence, or five years have not elapsed since completion of serving the sentence, expiration of the probation, or pardon;
2. Having committed the offence in terms of fraud, breach of trust or misappropriation and subsequently convicted with imprisonment for a term of more than one year, and has not started serving the sentence, has not completed serving the sentence, or two years have not elapsed since completion of serving the sentence, expiration of the probation, or pardon;
3. Having committed the offense as specified in the Anti-corruption Act and subsequently convicted of a crime, and has not started serving the sentence, has not completed serving the sentence, or two years have not elapsed since completion of serving the sentence, expiration of the probation, or pardon;
4. Having been adjudicated bankrupt or adjudicated of the commencement of liquidation process by a court, and having not been reinstated to his/her rights and privileges;
5. Having been dishonored for unlawful use of credit instruments, and the term of such sanction has not expired yet; or
6. Having no or only limited disposing capacity.
7. Having been adjudicated of the commencement of assistantship and such assistantship having not been revoked yet.

Note 2: 1. Not a governmental, juridical person or its representative as defined in Article 27 of the Company Law.
2. Not serving concurrently as an independent director on more than three other Taiwanese public companies in total.
3. During the two years before being elected and during the term of office, meet any of the following situations:
(1) Not an employee of the company or any of its affiliates;
(2) Not a director or supervisor of the company or any of its affiliates;
(3) Not a natural-person shareholder who holds shares, together with those held by the person's spouse, minor children, or held by the person under others' names, in an aggregate amount of one percent or more of the total number of issued shares of the company or ranks as one of its top ten shareholders;
(4) Not a spouse, relative within the second degree of kinship, or lineal relative within the third degree of kinship, of any of the officer in the preceding (1) subparagraph, or of any of the above persons in the preceding subparagraphs (2) and (3);
(5) Not a director, supervisor, or employee of a legal entity that directly holds five percent or more of the total number of issued shares of the company, ranks as of its top five shareholders, or has representative director(s) serving on the company's board based on Article 27 of the Company Law;
(6) Not a director, supervisor, or employee of a company of which the majority of board seats or voting shares is controlled by a company that also controls the same of the company;
(7) Not a director, supervisor, or employee of a company of which the chairman or CEO (or equivalent) themselves or their spouse also serve as the company's chairman or CEO (or equivalent);
(8) Not a director, supervisor, officer, or shareholder holding five percent or more of the shares of a specified company or institution that has a financial or business relationship with the company; and
(9) Neither a director nor his/her spouse has, in any capacity whatsoever, whether as a professional individual, owner, partner, director, supervisor, or officer of a sole proprietorship or any type of legal entity, provided to TSMC and its affiliates: (1) any audit service; or (2) commercial, legal, financial, accounting services or other services of which its total compensation exceeding NT$500,000 within the recent two years.

Board Diversity and Independence

TSMC's Board of Directors members are nominated via rigorous selection processes. The Company established the "Guidelines for Nomination of Directors," which detail the procedures and criteria for the nominating, qualifying and evaluating director candidates for consideration by the Board of Directors. Additionally, the "Corporate Governance Guidelines" outline the criteria for evaluating candidates for election by shareholders. These criteria include professional knowledge, experience, business judgment, commitment to the Company's core values, and reputation for ethical conduct and leadership. The Board also considers diversity in terms of gender, age, and cultural backgrounds.TSMC aims to achieve both diversity and independence on its Board. Currently,

the Board consists of ten members with varied backgrounds, including experience in different industries and academia. These members represent various nationalities, including from Taiwan, Europe and the U.S., and have experience managing world-class companies. Seven of these members are independent directors, accounting for 70% of the total board seats, ensuring the Board's independence. Furthermore, there are no marital or kinship relationships within the second degree among the directors, reinforcing the Board's independence.

The Company operates in the semiconductor industry, which traditionally has a predominantly male workforce. To enhance board diversity, following the re-election at TSMC's 2024 Annual Shareholders' Meeting, the number of female directors increased from one to two. Although this still falls short of one-third of the board seats, the Company remains committed to merit-based selection and will actively seek qualified female candidates for future board positions. The following table demonstrates the implementation of the board diversity policy:

Implementation of the Diversity Policy for Board Members

Title	Chairman and CEO	Director		Independent Director						
Name	C.C. Wei	F.C. Tseng	Chin-Ching Liu	Sir Peter L. Bonfield	Michael R. Splinter	Moshe N. Gavrielov	L. Rafael Reif	Ursula M. Burns	Lynn L. Elsenhans	Chuan Lin
Gender	Male	Male	Male	Male	Male	Male	Male	Female	Female	Male
Nationality	R.O.C.	R.O.C.	R.O.C.	U.K.	U.S.	U.S.	U.S.	U.S.	U.S.	R.O.C.
Age	71-75	76-80	61-65	76-80	71-75	66-70	71-75	66-70	66-70	71-75
Employed by TSMC	V									
Professional Knowledge and Expertise										
Business	V	V	V	V	V	V		V	V	V
Technology/Innovation	V	V		V	V	V	V	V	V	
Finance/Accounting			V					V		V
Sales and Marketing	V	V	V	V	V	V		V	V	V
Cybersecurity				V				V		
Academia			V				V			V
Skills and Experience										
Senior Leadership Experience	V	V	V	V	V	V	V	V	V	V
Global Market Perspective	V	V	V	V	V	V		V	V	V
Semiconductor Industry Experience	V	V	V	V	V	V	V			V
Legal or Corporate Compliance	V	V	V	V	V	V	V	V	V	V
Financial	V	V	V	V	V	V	V	V	V	V
Operating and Manufacturing	V	V	V	V	V	V		V	V	V
Business Development	V	V	V	V	V	V		V	V	V
Risk/Crisis Management	V	V	V	V	V	V	V	V	V	V
HR and Talent Development	V	V	V	V	V	V	V	V	V	V
Environmental Sustainability	V	V	V	V	V	V	V	V	V	V
Social Engagement	V	V	V	V	V	V	V	V	V	V

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Continuing Education/Training of Directors in 2024

The major training methods of Directors include:

- At quarterly Board meetings, TSMC management presents updates on the Company's business, regulatory developments and other information;
- The Company arranges speeches or training on politics, economics, and regulatory compliance, etc.;
- At quarterly Audit and Risk Committee meetings, TSMC's General Counsel and the Company's independent auditors provide regulatory update reports and legal compliance status; and
- Directors participate in externally-provided training courses as needed.

In addition, from time to time, Directors are invited by other parties to give speeches on corporate governance and related topics.

Name	Date	Host by	Training/Speech Title	Duration
C.C. Wei	08/13	TSMC Taiwan Corporate Governance Association	Governing Cyber Security Risks	1.5 hours
	11/12	TSMC Taiwan Corporate Governance Association	Antitrust and Competition Law Update	1.5 hours
F.C. Tseng	04/25	Global Unichip Corporation Securities and Futures Institute	Protection of Trade Secrets	3 hours
	08/13	TSMC Taiwan Corporate Governance Association	Governing Cyber Security Risks	1.5 hours
	11/12	TSMC Taiwan Corporate Governance Association	Antitrust and Competition Law Update	1.5 hours
	11/25	Vanguard International Semiconductor Corporation Taiwan Corporate Governance Association	High-tech Cybersecurity Risk Management	3 hours
Chin-Ching Liu	08/13	TSMC Taiwan Corporate Governance Association	Governing Cyber Security Risks	1.5 hours
	09/11	Digital Governance Association	Gender issues that companies must know under the Me Too wave: Analysis of the legislative trends of the Gender Equality Workplace Act and the responsibilities of companies	3 hours
	10/21	Digital Governance Association	AI's new generation of multi-faceted transformation: AI-related talent, information security and corporate governance	3 hours
	11/12	TSMC Taiwan Corporate Governance Association	Antitrust and Competition Law Update	1.5 hours
	11/20	Securities & Futures Institute	Executive Yuan National Development Fund Management Committee Commissioned Training: Directors and Supervisors (Including Independent) Practical Advanced Seminar "How Directors and Supervisors Can Supervise Companies to Perform Enterprise Risk Management and Crisis Management (Including Gender Equality)"	3 hours
Sir Peter L. Bonfield	06/18	Darktrace	Cyber Risk Training Module	3 hours
	08/13	TSMC Taiwan Corporate Governance Association	Governing Cyber Security Risks	1.5 hours
	11/12	TSMC Taiwan Corporate Governance Association	Antitrust and Competition Law Update	1.5 hours
Michael R. Splinter	08/13	TSMC Taiwan Corporate Governance Association	Governing Cyber Security Risks	1.5 hours
	11/12	TSMC Taiwan Corporate Governance Association	Antitrust and Competition Law Update	1.5 hours
Moshe N. Gavrielov	05/19-20	Matrix Capital Market Groups	Technology/HealthCare	16 hours
	06/06	Barclays	Semiconductor Forum	8 hours
	07/22-23	Goldman Sachs	Corporate Directors Forum	12 hours
	08/13	TSMC Taiwan Corporate Governance Association	Governing Cyber Security Risks	1.5 hours
	09/18-20	Morgan Stanley	Semiconductor Executive and Board Members Forum	16 hours
	10/02-04	McKinsey & Company	T-30 Semiconductor Forum	16 hours
	11/12	TSMC Taiwan Corporate Governance Association	Antitrust and Competition Law Update	1.5 hours
	11/18-19	Silicon Catalyst Malta Enterprise	ChipStart EU Program	16 hours

(Continued)

Name	Date	Host by	Training/Speech Title	Duration
L. Rafael Reif	08/13	TSMC Taiwan Corporate Governance Association	Governing Cyber Security Risks	1.5 hours
	11/12	TSMC Taiwan Corporate Governance Association	Antitrust and Competition Law Update	1.5 hours
Ursula M. Burns	08/13	TSMC Taiwan Corporate Governance Association	Governing Cyber Security Risks	1.5 hours
	11/12	TSMC Taiwan Corporate Governance Association	Antitrust and Competition Law Update	1.5 hours
Lynn L. Elsenhans	08/13	TSMC Taiwan Corporate Governance Association	Governing Cyber Security Risks	1.5 hours
	11/12	TSMC Taiwan Corporate Governance Association	Antitrust and Competition Law Update	1.5 hours
	11/21	Egon Zehnder in Houston	Board Chair's and Nom/Gov Chairs Preparing Boards for the Future	1 hour
Chuan Lin	08/13	TSMC Taiwan Corporate Governance Association	Governing Cyber Security Risks	1.5 hours
	09/04	TTY Biopharm Taiwan Corporate Governance Association	Corporate Legal Compliance, Ethical Corporate Management, and What Directors Should Know regarding Legal Practice of the Labor Standards Act Friendly Workplace and Gender Equality in Employment Act	3 hours
	09/24	Pegatron Corporation Taiwan Corporate Governance Association	The Roles of Directors and Supervisors in Company's Risk and Crisis Management (including the Latest Practical Developments in Gender Equality in Employment Act)	3 hours
	10/17	TTY Biopharm Securities and Futures Institute	Artificial Intelligence Booming: Chatbot ChatGPT Flips New Industry Trends	3 hours
	11/12	TSMC Taiwan Corporate Governance Association	Antitrust and Competition Law Update	1.5 hours
	11/13	Pegatron Corporation Taiwan Corporate Governance Association	Trends and Risk Management of Digital Technology and Artificial Intelligence	3 hours

3.2.1 Audit and Risk Committee

The Audit and Risk Committee assists the Board in fulfilling its oversight of the quality and integrity of the accounting, auditing, reporting, and financial control practices, as well as risk management of the Company.

The Audit and Risk Committee is responsible to review the following major matters:

- Financial reports;
- Auditing and accounting policies and procedures;
- Internal control systems and related policies and procedures;
- Material asset or derivatives transactions;
- Material lending funds, endorsements or guarantees;
- Offering or issuance of any equity-type securities;
- Derivatives and cash investments;
- Legal compliance;
- Related-party transactions and potential conflicts of interests involving executive officers and directors;
- Ombudsman reports;
- Fraud prevention and investigation reports;
- Corporate information security;
- Corporate risk management;
- Performance, independence, qualification of independent auditor;
- Hiring or dismissal of an attesting CPA, or the compensation given thereto;
- Appointment or discharge of financial, accounting, or internal auditing officers;
- Assessment of Committee Charter and fulfillment of Committee duties;
- Self-assessment of the Committee's performance; and
- Any other matters that shall be reviewed by the Audit and Risk Committee Meeting as required by relevant laws and regulations or its Committee Charter, or that are deemed to be material by the regulatory authorities.

Under R.O.C. law, the membership of audit committee shall consist of all independent directors. TSMC's Audit and Risk Committee satisfies this statutory requirement. The Committee also engaged a financial expert consultant in accordance with the rules of the U.S. Securities and Exchange Commission. The Audit and Risk Committee annually conducts self-evaluation to assess the Committee's performance and identify areas for further attention.

TSMC's Audit and Risk Committee is empowered by its Charter to conduct any study or investigation it deems appropriate to fulfill its responsibilities. It has direct access to TSMC's internal auditors, the Company's independent auditors, and all employees of the Company. The Committee is authorized to retain and oversee special legal, accounting, or other consultants as it deems appropriate to fulfill its mandate.

3.2.2 Compensation and People Development Committee

The Compensation and People Development Committee assists the Board in discharging its responsibilities related to TSMC's compensation and benefits policies, plans and programs, in evaluation of compensation of TSMC's directors of the Board and executives, and the review of the pipeline planning of the Company's senior executives to ensure the long-term sustainability of the Company.

The members of the Compensation and People Development Committee are appointed by the Board as required by R.O.C. law. According to its charter, the Committee shall consist of no fewer than three independent directors of the Board. The Chairman of the Board and the Chief Executive Officer are invited by the Committee to attend all meetings and are excused from the Committee's discussion of their own compensation. Currently, the Committee consists of four Independent Directors.

TSMC's Compensation and People Development Committee is authorized by its charter to retain an independent consultant to assist in the evaluation of CEO's or executive officer's compensation.

Information Regarding Compensation and People Development Committee Members

Criteria / Name/Title	Professional Qualification and Experience	Independent Directors' Independence Status	Number of Other Taiwanese Public Companies Concurrently Serving as a Compensation Committee Member
Michael R. Splinter (Chair) Independent Director	TSMC's Compensation and People Development Committee is comprised of four independent Directors. For members professional qualification and experience, please refer to "2.3.1 Information Regarding Board Members" on page 20-27 of this Annual Report.	1. All the Committee members meet the requirements of Article 14-6 of "Securities and Exchange Act" and the requirements of "Regulations Governing the Appointment and Exercise of Powers by the Compensation Committee of a Company Whose Stock is Listed on the Taiwan Stock Exchange or the Taipei Exchange" (Note) issued by Taiwan's Financial Supervisory Commission 2. For information on the Committee members (or nominee arrangement) as well as his/her spouse and minor children's shareholding of TSMC common shares, please refer to "2.3.1 Information Regarding Board Members" on page 20-27 of this Annual Report 3. None of the Committee members have received compensation or benefits for providing to the Company or its affiliates: (1) any audit service; or (2) commercial, legal, financial, accounting services or other services within the recent two years	0
Sir Peter L. Bonfield Independent Director			0
Moshe N. Gavrielov Independent Director			0
Ursula M. Burns Independent Director			0

Note: During the two years before being elected and during the term of office, meet any of the following situations:
(1) Not an employee of the company or any of its affiliates;
(2) Not a director or supervisor of the company or any of its affiliates;
(3) Not a natural-person shareholder who holds shares, together with those held by the person's spouse, minor children, or held by the person under others' names, in an aggregate amount of one percent or more of the total number of issued shares of the company or ranks as one of its top ten shareholders;
(4) Not a spouse, relative within the second degree of kinship, or lineal relative within the third degree of kinship, of any of the officer in the preceding (1) subparagraph, or of any of the above persons in the preceding subparagraphs (2) and (3);
(5) Not a director, supervisor, or employee of a legal entity that directly holds five percent or more of the total number of issued shares of the company, ranks as of its top five shareholders, or has representative director(s) serving on the company's board based on Article 27 of the Company Law;
(6) Not a director, supervisor, or employee of a company of which the majority of board seats or voting shares is controlled by a company that also controls the same of the company;
(7) Not a director, supervisor, or employee of a company of which the chairman or CEO (or equivalent) themselves or their spouse also serve as the company's chairman or CEO (or equivalent);
(8) Not a director, supervisor, officer, or shareholder holding five percent or more of the shares of a specified company or institution that has a financial or business relationship with the company; and
(9) Neither a director nor his/her spouse has, in any capacity whatsoever, whether as a professional individual, owner, partner, director, supervisor, or officer of a sole proprietorship or any type of legal entity, provided to TSMC and its affiliates: (1) any audit service; or (2) commercial, legal, financial, accounting services or other services of which its total compensation exceeding NT$500,000 within the recent two years.

3.2.3 Nominating, Corporate Governance and Sustainability Committee

The Nominating, Corporate Governance and Sustainability Committee assists the Board in strengthening the selection mechanism for directors, building diversified and professional board, selecting candidates for nomination to be elected as independent directors to the Board, and advising on corporate governance and sustainability matters.

According to its Charter, the Committee shall be composed of the Chairman of the Board and three to six independent directors. Currently, the Committee consists of the Chairman of the Board and three Independent Directors.

The Nominating, Corporate Governance and Sustainability Committee is authorized by its Charter to hire independent legal, financial and other advisors as it may deem necessary to fulfill its responsibilities.

3.2.4 Corporate Governance Officer

The Board of Directors appointed Ms. Sylvia Fang, the Senior Vice President and General Counsel of TSMC, as the Corporate Governance Officer responsible for corporate governance matters, including handling of matters relating to Board, Audit and Risk Committee, Compensation and People Development Committee, Nominating, Corporate Governance and Sustainability Committee, and Shareholders' meetings in compliance with law, assistance in onboarding and continuing education of directors, provision of information required for performance of duties by directors, and assistance in directors' compliance of law, etc.

For details on performance of duties by the Corporate Governance Officer, please refer to "3. Corporate Governance" on page 40-67 of this Annual Report.

3.2.5 Director and Committees Members' Attendance

Each Director is expected to attend every Board meeting and the Committees meeting on which he or she serves. In 2024, the average Board Meeting attendance rate was 97.02% and the attendance rate for the Audit and Risk Committee, Compensation and People Development Committee, and Nominating, Corporate Governance and Sustainability Committee's Meetings were 100%, 100%, and 97.5% respectively.

Board of Directors Meeting Status

Tenures of the Board of Directors members are from June 4, 2024 to June 3, 2027. TSMC's Chairman of the Board of Directors convened four regular meetings and two special meetings in 2024. The directors' attendance status is as follows.

Title	Name	Attendance in Person	By Proxy	Attendance Rate in Person (%)	Notes
Former Chairman	Mark Liu	3	0	100%	Term expired (Note)
Chairman and Chief Executive Officer	C.C. Wei	6	0	100%	Renewal of office (Note)
Director	Representative of National Development Fund, Executive Yuan: Ming-Hsin Kung Chin-Ching Liu	 3 2	 1 0	 75% 100%	Renewal of office (Note) Mr. Chin-Ching Liu was appointed as the representative of the National Development Fund, succeeding Mr. Ming-Hsin Kung on June 6, 2024.
Director	F.C. Tseng	6	0	100%	Renewal of office (Note)
Independent Director	Sir Peter L. Bonfield	6	0	100%	Renewal of office (Note)
Independent Director	Kok-Choo Chen	3	0	100%	Term expired (Note)
Independent Director	Michael R. Splinter	6	0	100%	Renewal of office (Note)
Independent Director	Moshe N. Gavrielov	6	0	100%	Renewal of office (Note)
Independent Director	Yancey Hai	3	0	100%	Term expired (Note)
Independent Director	L. Rafael Reif	5	0	83.33%	Renewal of office (Note)

(Continued)

Title	Name	Attendance in Person	By Proxy	Attendance Rate in Person (%)	Notes
Independent Director	Ursula M. Burns	3	0	100%	New office assumed (Note)
Independent Director	Lynn L. Elsenhans	3	0	100%	New office assumed (Note)
Independent Director	Chuan Lin	3	0	100%	New office assumed (Note)

Annotations:
A. (1) Matters listed in the Securities and Exchange Act §14-3: The Securities and Exchange Act §14-3 is not be applicable because the Company has established the Audit and Risk Committee. For relevant information, please refer to the "Audit and Risk Committee Meeting Status" in this Annual Report.
(2) There were no other written or otherwise recorded resolutions on which an Independent Director had an objection or reservation.
B. Recusals of Directors due to conflicts of interests: (1) Directors recused themselves from the discussion and voting of their compensation resolution; (2) Dr. F.C. Tseng as the Chairman of TSMC Education and Culture Foundation recused himself from the discussion and voting of a donation to TSMC Education and Culture Foundation; (3) Dr. F.C. Tseng and Mr. Moshe N. Gavrielov, serving as the Vice Chairman of Vanguard International Semiconductor Corporation (VIS) and an Independent Director of NXP Semiconductors N.V. (NXP), respectively, recused themselves from participating in the discussion and voting on the proposal regarding TSMC's subscription to new shares to be issued by VIS for financing a joint venture 12-inch fab with NXP.
C. Measures taken to strengthen the functionality of the Board:
– TSMC's Directors are composed of diverse backgrounds, including professional backgrounds in different industries and academic, etc.; nationalities in different countries in Taiwan, Europe and the U.S.; world-class business operating experience; and two Director are females. Our Board has seven Independent Directors who constitute 70% of the Board.
– TSMC's 16th Board of Directors was elected at TSMC's Annual Shareholders' Meeting on June 4, 2024, including two female Directors and seven Independent Directors.
– TSMC arranged two training courses for the Directors: "Cybersecurity Risk Management" and "Antitrust and Competition Law Update".

Note: TSMC's 16th Board of Directors was elected at TSMC's Annual Shareholders' Meeting on June 4, 2024.

Audit and Risk Committee Meeting Status

Tenures of the Audit and Risk Committee members are from June 4, 2024 to June 3, 2027. The Chairman of the Audit and Risk Committee, convened four regular meetings and one special meeting in 2024. In addition to these meetings, he also convened one special meeting and three telephone conferences to review the Company's Annual Report to be filed with the Taiwan and U.S. authorities and investor conference materials. The Committee members' and consultant's attendance status is as follows.

Title	Name	Attendance in Person	By Proxy	Attendance Rate in Person (%)	Telephone Conferences	Attendance Rate of Telephone Conferences (%)	Notes
Chair	Sir Peter L. Bonfield	6	0	100%	3	100%	Renewal of office (Note)
Member	Michael R. Splinter	6	0	100%	3	100%	Renewal of office (Note)
Member	Moshe N. Gavrielov	6	0	100%	3	100%	Renewal of office (Note)
Member	L. Rafael Reif	6	0	100%	0	0%	Renewal of office (Note)
Member	Ursula M. Burns	3	0	100%	2	100%	New office assumed (Note)
Member	Lynn L. Elsenhans	3	0	100%	2	100%	New office assumed (Note)
Member	Chuan Lin	3	0	100%	2	100%	New office assumed (Note)
Member	Kok-Choo Chen	3	0	100%	1	100%	Term expired (Note)
Member	Yancey Hai	3	0	100%	1	100%	Term expired (Note)
Financial Expert Consultant	Jan C. Lobbezoo	6	0	100%	3	100%	None

Annotations:
A. (1) Resolutions related to Securities and Exchange Act §14-5:

Audit and Risk Committee Meeting Date	Resolution
2024 1st Regular Meeting February 5	•2023 annual financial statements •2023 business report •2023 fourth quarter earnings distribution •Capital injection of not more than US$5.262 billion to Japan Advanced Semiconductor Manufacturing, Inc. (JASM) •If TSMC Arizona is able to receive CHIPS Incentive Awards pursuant to the CHIPS Act via entering into CHIPS Incentive Awards agreements with the United States Department of Commerce ("DOC"), a parent guarantee is to be provided by TSMC to the DOC for the obligations of TSMC Arizona arising from the said agreements, and the final amount of the parent guarantee is to be determined by the authority granted to the Chairman of the Board so long as it is within the authorized amount, and is subject to subsequent ratification at the next Board meeting •Capital injection of not more than US$5 billion to TSMC Arizona •Capital injection of not more than US$3 billion to TSMC Global Ltd. •Issuance of total 2,960,000 shares of 2023 employee restricted stock awards •Issuance of 2024 employee restricted stock awards •2023 Statement of Internal Control System
2024 2nd Special Meeting May 10	•2024 first quarter financial statements •2024 first quarter business report •2024 first quarter earnings distribution
2024 2nd Regular Meeting June 4	•Capital injection of not more than US$5 billion to TSMC Global Ltd. •Related-party sale of existing TSMC equipment to TSMC Arizona •Amendments to TSMC's internal control related policies and procedures

(Continued)

Audit and Risk Committee Meeting Date	Resolution
2024 3rd Regular Meeting August 12	•2024 second quarter financial statements •2024 second quarter business report •2024 second quarter earnings distribution •The subscription of new shares to be issued by Vanguard International Semiconductor Corporation (VIS) •Capital injection of not more than US$7.5 billion to TSMC Arizona •Ratification of TSMC's security investments classified as non-current assets •Related-party sale of existing TSMC equipment to JASM •Issuance of total 2,353,000 shares of 2024 employee restricted stock awards
2024 4th Regular Meeting November 11	•2024 third quarter financial statements •2024 third quarter business report •2024 third quarter earnings distribution •NTD corporate bond issuance •A 3rd investment in an amount of US$100 million to Emerging Fund and net proceeds from the transactions of its can be reinvested •Ratification of the parent guarantee provided by TSMC to the United States Department of Commerce ("DOC") for the obligations of TSMC Arizona under the agreements that TSMC Arizona has entered into with the DOC for the receipt of CHIPS Incentives Awards pursuant to the CHIPS Act •2025 service fees and out-of-pocket expenses for Deloitte
Independent Directors' objections, reservations or major suggestions: None.	
Resolution of the committee and the Company's response to the committee's opinion: The members of the Committee unanimously approved all the resolutions, and the Board of Directors approved all such resolutions recommended by the Committee.	

(2) There were no other resolutions which was not approved by the Committee but was approved by two thirds or more of all directors in 2024.

B. Recusals of Independent Directors due to conflicts of interests: Mr. Moshe N. Gavrielov, serving as an Independent Director of NXP Semiconductors N.V. (NXP), recused himself from participating in the discussion and voting on the proposal regarding TSMC's subscription to new shares to be issued by VIS for financing a joint venture 12-inch wafer fab with NXP.

C. Descriptions of the communications between the Independent Directors, the internal auditors, and the independent auditors in 2024 (which should include the material items, channels, and results of the audits on the corporate finance and/or operations, etc.):

(1) The internal auditors have sent the audit reports to the members of the Committee periodically and presented the findings of all audit reports in the quarterly meetings of the Committee. The head of Internal Audit will immediately report to the members of the Committee any material matters. During 2024, the head of Internal Audit did not report any such material matters. The communication channel between the Committee and the internal auditor functioned well.

(2) The Company's independent auditors have presented the findings of their quarterly review or audits on the Company's financial results. Under applicable laws and regulations, the independent auditors are also required to immediately communicate to the Committee any material matters that they have discovered. During 2024, the Company's independent auditors did not report any irregularity. The communication channel between the Committee and the independent auditors functioned well.

The communications between the Independent Directors, the internal auditors, and the independent auditors are listed in the table below.

Audit and Risk Committee Meeting Date	Communications between the Independent Directors and the Internal Auditors	Communications between the Independent Directors and the Independent Auditors
2024 1st Regular Meeting February 5	•Internal Auditor's report (Closed Door Session) •Report on SOX 404 self-testing results for the year 2023 (Closed Door Session) •2023 Statement of Internal Control System (Closed Door Session)	•External auditor relationship (i.e. qualification, performance and independence) •Report of regulatory developments •Any audit problems or difficulties and management's response in connection with 2023 annual financial statements (Closed Door Session)
2024 2nd Special Meeting May 10	-	•Any review problems or difficulties and management's response in connection with 2024 first quarter financial statements (Closed Door Session)
2024 2nd Regular Meeting June 4	•Internal Auditor's report (Closed Door Session) •Amendments to TSMC's internal control related policies and procedures (Closed Door Session)	•The result of 2023 CPA evaluation questionnaire •Report of regulatory developments •Annual audit plan (Closed Door Session)
2024 3rd Regular Meeting August 12	•Internal Auditor's report (Closed Door Session)	•Report of regulatory developments •Any review problems or difficulties and management's response in connection with 2024 second quarter financial statements (Closed Door Session)
2024 4th Regular Meeting November 11	•Internal Auditor's report (Closed Door Session) •2025 internal audit plan (Closed Door Session)	•External auditor relationship (i.e. qualification, performance and independence) •Report of regulatory developments •Any review problems or difficulties and management's response in connection with 2024 third quarter financial statements (Closed Door Session)
Result: all of the above matters were reviewed and/or approved by the Committee whereupon Independent Directors raised no objection.		

Note: Sir Peter L. Bonfield, Mr. Michael R. Splinter, Mr. Moshe N. Gavrielov, Dr. L. Rafael Reif, Ms. Ursula M. Burns, Ms. Lynn L. Elsenhans and Dr. Chuan Lin were elected as TSMC's independent director at Annual Shareholders' Meeting on June 4, 2024, and became member of the Audit and Risk Committee.

Compensation and People Development Committee Meeting Status

Tenures of the Compensation and People Development Committee members are from June 4, 2024 to June 3, 2027. The Chairman of the Compensation and People Development Committee, convened four regular meetings and one special meeting in 2024. The Committee members' qualification and attendance are as follows.

Title	Name	Attendance in Person	By Proxy	Attendance Rate in Person (%)	Notes
Chair	Michael R. Splinter	5	0	100%	Renewal of office (Note)
Member	Sir Peter L. Bonfield	5	0	100%	Renewal of office (Note)
Member	Moshe N. Gavrielov	5	0	100%	Renewal of office (Note)
Member	Ursula M. Burns	3	0	100%	New office assumed (Note)
Member	L. Rafael Reif	2	0	100%	Term expired (Note)
Member	Kok-Choo Chen	2	0	100%	Term expired (Note)
Member	Yancey Hai	2	0	100%	Term expired (Note)

Annotations:
A. In 2024, the Compensation and People Development Committee conducted four regular meetings on February 5, June 4, August 12 and November 11 and one special meeting on May 10. The discussion items were as follows:
- Report on matters related to employee compensation
- Total amount of quarterly business performance bonus
- Total amount of annual profit sharing
- The amount of quarterly business performance bonus for executive officers, CEO and Chairman
- The annual compensation of directors and executive officers, and the disclosure of same in the Annual Report
- Vest of Employee restricted stock awards for 2021 and 2022
- Grant of Employee restricted stock awards for 2023 and 2024
- Employee restricted stock awards rules for 2024
- 2025 Executive Equity Based Compensation Plan
- Organization and Executive Succession Discussion

All of the above matters were reviewed and/or approved by the Committee.
B. The Board of Directors adopted all recommendations of the Committee without modification.
C. There were no written or otherwise recorded resolutions on which any member of the Committee had an objection or reservation opinion.

Note: TSMC Board of Directors approved the appointment of Michael R. Splinter, Sir Peter L. Bonfield, Mr. Moshe N. Gavrielov, and Ms. Ursula M. Burns as members of the Compensation and People Development Committee.

Information Regarding Nominating, Corporate Governance and Sustainability Committee Members and Committee's Meeting Status

According to its Charter, the Committee shall be composed of the Chairman of the Board and three to six independent directors. The Nominating, Corporate Governance and Sustainability Committee assists the Board in strengthening the selection mechanism for directors, building diversified and professional board, selecting candidates for nomination to be elected as independent directors to the Board, and advising on corporate governance and sustainability matters.

TSMC's Nominating, Corporate Governance and Sustainability Committee is comprised of four members. Tenures of the Committee members are from June 4, 2024 to June 3, 2027. The Chairman of the Committee convened four meetings in 2024. The Committee members' professional qualification and experience, attendance status, and discussion items are as follows:

Criteria Name/Title	Professional Qualification and Experience	Attendance in Person	By Proxy (Note)	Attendance Rate in Person (%)	Notes
Chuan Lin (Chair) Independent Director	TSMC's Nominating, Corporate Governance and Sustainability Committee is comprised of the Chairman of the Board and three independent directors. For members' professional qualification and experience, please refer to "2.3.1 Information Regarding Board Members" on page 20-27 of this Annual Report.	3	0	100%	New office assumed (Note)
C.C. Wei Chairman of the Board		3	0	100%	New office assumed (Note)
L. Rafael Reif Independent Director		3	-	75%	Renewal of office (Note)
Lynn L. Elsenhans Independent Director		3	0	100%	New office assumed (Note)
Moshe N. Gavrielov Independent Director		1	0	100%	Term expired (Note)
Mark Liu Former Chairman of the Board		1	0	100%	Retirement (Note)
Sir Peter L. Bonfield Independent Director		1	0	100%	Term expired (Note)
Kok-Choo Chen Independent Director		1	0	100%	Term expired (Note)
Michael R. Splinter Independent Director		1	0	100%	Term expired (Note)
Yancey Hai Independent Director		1	0	100%	Term expired (Note)

Annotations:
A. In 2024, the Nominating, Corporate Governance and Sustainability Committee conducted four meetings on February 5, June 4, August 12 and November 11. The discussion items were as follows:
- Committee's operation
- Reviewing the press release for director candidates
- Reviewing the result of the Committee 2023 annual assessment questionnaire
- Reviewing the standing agenda for 2024 Committee meetings
- Amendments of the TSMC's "Corporate Governance Guidelines" and "Nominating, Corporate Governance and Sustainability Committee Charter"
- Reviewing Quarterly ESG report
- Annual reviewing and assessing the fulfillment of Committee duties

All of the above matters were reviewed, discussed and/or approved by the Committee.
B. There were no resolutions on which any member of the Committee had an objection opinion.
C. The Board of Directors approved and adopted all recommendations of the Committee without modification.
Note: The Committee members shall attend the meetings in-person, and there is no proxy available for the Committee members who are unable to attend the meeting.

Note: TSMC Board approved the appointment of Dr. Chuan Lin, Dr. C.C. Wei, Dr. L. Rafael Reif and Ms. Lynn L. Elsenhans as members of Nominating, Corporate Governance and Sustainability Committee on June 4, 2024.

Board of Directors' Performance Evaluation Implementation Status

Evaluation Cycle	Evaluation Period	Evaluation Scope	Evaluation Method	Evaluation Aspect
Annual	From January 1, 2024 to December 31, 2024	•The Board of Directors as a whole •The individual directors •The Audit and Risk Committee •The Compensation and People Development Committee •The Nominating, Corporate Governance and Sustainability Committee	•Internal assessment of the Board •Self-assessments by each board member •Internal assessment of each committee	The Board of Directors are assessed on the following five aspects: 1. Involvement in the Company's operations 2. Enhancement of the quality of the board's decision-making 3. Makeup and structure of the board 4. Election of board members and continuing knowledge development 5. Internal control The individual directors are assessed on the following six aspects: 1. Understanding of the Company's goals and mission 2. Awareness of director's duties 3. Involvement in the Company's operations 4. Internal relationship and communication 5. Director's professionalism and continuing knowledge development 6. Internal control Each functional Committee is assessed on the following five aspects: 1. Involvement in the Company's operations 2. Awareness of the committee's duties 3. Enhancement of the quality of the committee's decision-making 4. Makeup of the committee and election of its members 5. Internal control

The Company completed self-assessments of Board and each Committee performance in 2024 and reported the results to the Board and each Committee at its first quarter meeting in 2025 for review and improvement. The weighted average score for the overall performance of the Board of Directors is 4.73 out of 5, that included an average score of 4.78 on a particular assessment item "The board has sufficient discussions over the Company's involvement in the implementation of ESG programs". The weighted average score for the performance of the individual directors is 4.84 out of 5. As demonstrated, the overall board's operation has been effective. On a scale out of 5, the weighted average scores for self-assessed performance results of the Audit and Risk Committee, the Compensation and People Development Committee and the Nominating, Corporate Governance and Sustainability Committee are 4.79, 4.84 and 4.63, respectively. As demonstrated, each committee's operation has been effective.

3.3 Major Decisions of Shareholders' Meeting and Board Meetings

3.3.1 Major Resolutions of Shareholders' Meeting and Implementation Status

TSMC held 2024 Annual Shareholders' Meeting in Hsinchu, Taiwan on June 4, 2024. At the meeting, shareholders present in person or by proxy approved the following resolutions:

(1) The 2023 Business Report and Financial Statements. Consolidated revenue totaled NT$2,161.74 billion and net income was NT$838.50 billion, with diluted earnings per share of NT$32.34;

(2) The revisions to the Articles of Incorporation;

(3) The issuance of employee restricted stock awards for the year 2024; and

Directors Election: Election of ten Directors (including seven Independent Directors)

Implementation Status

All the resolutions of the Shareholders' Meeting have been fully implemented in accordance with the resolutions.

The ten newly elected directors were Dr. C.C. Wei, Dr. F.C. Tseng, Dr. Ming-Hsin Kung (Representative of National Development Fund, Executive Yuan), Sir Peter L. Bonfield (Independent Director), Mr. Michael R. Splinter (Independent Director), Mr. Moshe N. Gavrielov (Independent Director), Dr. L. Rafael Reif (Independent Director), Ms. Ursula M. Burns (Independent Director), Ms. Lynn L. Elsenhans (Independent Director), and Dr. Chuan Lin (Independent Director).

3.3.2 Major Resolutions of Board Meetings

During 2024 and as of the date of this Annual Report, major resolutions approved at Board meetings are summarized below:

(1) Regular Board Meeting of February 5 & 6, 2024:

- approving the 2023 Business Report and Financial Statements;
- approving the distribution of a NT$3.50 per share cash dividend for the fourth quarter of 2023, and setting June 19, 2024 as the record date for common stock shareholders entitled to participate in this cash dividend distribution;
- approving distribution of employees' business performance bonus and profit sharing for 2023;
- approving capital appropriations of approximately US$9,421.48 million for purposes including: 1. Installation of advanced technology capacity; 2. Installation of advanced packaging, mature and/or specialty technology capacity; 3. Fab construction, and installation of fab facility systems, including construction of the Zero Waste Manufacturing Center at the Southern Taiwan Science Park; 4. Capitalized leased assets;
- approving the capital injection of not more than US$5,262 billion to Japan Advanced Semiconductor Manufacturing, Inc. (JASM);
- approving the capital injection of not more than US$5 billion to TSMC Arizona, a wholly-owned subsidiary of TSMC;
- approving the capital injection of not more than US$3 billion to TSMC Global Ltd., a wholly-owned subsidiary of TSMC, for the purpose of reducing foreign exchange hedging costs;

- approving the issuance of 2,960,000 shares of 2023 employee restricted stock awards (RSAs). In addition, approving the issuance of no more than 4,185,000 common shares of RSAs for the year 2024, which will be submitted to the 2024 Annual Shareholders' Meeting for approval;
- convening the 2024 Annual Shareholders' Meeting;
- approving the promotion of Vice President, Finance and Chief Financial Officer Mr. Wendell Huang to Senior Vice President; and
- approving the promotion of Vice President, Legal and General Counsel Ms. Sylvia Fang to Senior Vice President.

(2) Special Board Meeting of February 29, 2024:
- approving the appointment of Senior Vice President of R&D Dr. Y.J. Mii and Senior Vice President of Operations Mr. Y.P. Chyn as Executive Vice Presidents and Co-Chief Operating Officers of TSMC, effect March 1, 2024.

(3) Special Board Meeting of May 10, 2024:
- approving the 2024 first quarter Business Report and Financial Statements; and
- approving the distribution of a NT$4.00 per share cash dividend for the first quarter of 2024, and setting September 18, 2024 as the record date for common stock shareholders entitled to participate in this cash dividend distribution.

(4) Regular Board Meeting of June 4 & 5, 2024:
- electing Dr. C.C. Wei as Chairman and Chief Executive Officer (CEO);
- approving capital appropriations of approximately US$17,356.20 million for purposes including: 1. Installation and upgrade of advanced technology capacity; 2. Installation and upgrade of advanced packaging, mature and/or specialty technology capacity; 3. Fab construction, and installation of fab facility systems;
- approving the capital injection of not more than US$5 billion to TSMC Global Ltd., a wholly-owned subsidiary of TSMC, for the purpose of reducing foreign exchange hedging costs;
- approving a total donation of not more than NT$4 billion to National Taiwan University (NTU), National Yang Ming Chiao Tung University (NYCU), National Tsing Hua University (NTHU), National Cheng Kung University (NCKU) and selected senior high schools and girls' senior high schools in Taiwan to enhance long-term semiconductor research, education and talent cultivation; and
- approving a share buyback program for TSMC to buy back 3,249,000 common shares on Taiwan Stock Exchange to offset the dilution from the increase of outstanding shares due to Employee Restricted Stock Awards (RSAs) issuance.

(5) Regular Board Meeting of August 13, 2024:
- approving the 2024 second quarter Business Report and Financial Statements;
- approving the distribution of a NT$4.00 per share cash dividend for the second quarter of 2024, and setting December 18, 2024 as the record date for common stock shareholders entitled to participate in this cash dividend distribution;
- approving capital appropriations of approximately US$29,615.47 million for purposes including: 1. approving Installation and upgrade of advanced technology capacity; 2. Installation and upgrade of advanced packaging, mature and/or specialty technology capacity; 3. Fab construction, and installation of fab facility systems;
- approving the capital injection of not more than US$7.5 billion to TSMC Arizona, a wholly-owned subsidiary of TSMC;
- approving the issuance of 2,353,000 shares of 2024 employee restricted stock awards (RSAs); and
- approving the promotion of Materials Management Organization Senior Director Ms. Vanessa Lee to Vice President

(6) Regular Board Meeting of November 11 &12, 2024:
- approving the 2024 third quarter Business Report and Financial Statements;
- approving the distribution of a NT$4.50 per share cash dividend for the third quarter of 2024, and setting March 24, 2025 as the record date for common stock shareholders entitled to participate in this cash dividend distribution;
- approving capital appropriations of approximately US$15,479.95 million for purposes including: 1. Fab construction, and installation of fab facility systems; 2. Installation of advanced technology capacity, as well as 2025 R&D capital investments and sustaining capital expenditures; 3. 2025 capitalized leased assets; and
- approving the issuance of unsecured corporate bonds in multiple offerings in the domestic market in an amount not to exceed NT$60 billion to finance TSMC's capacity expansion and/or pollution prevention related expenditures.

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(7) Regular Board Meeting of February 12, 2025:

- approving the 2024 Business Report and Financial Statements;
- approving the distribution of a NT$4.50 per share cash dividend for the fourth quarter of 2024, and setting June 18, 2025 as the record date for common stock shareholders entitled to participate in this cash dividend distribution;
- approving distribution of employees' business performance bonus and profit sharing for 2024;
- approving capital appropriations of approximately US$17,141.40 million for purposes including: 1. Installation and upgrade of advanced technology capacity; 2. Installation and upgrade of advanced packaging, mature and/or specialty technology capacity; 3. Fab construction, and installation of fab facility systems;
- approved the capital injection of not more than US$10 billion to TSMC Global Ltd., a wholly-owned subsidiary of TSMC, for the purpose of reducing foreign exchange hedging costs;
- approving the 2025 Annual Shareholders' Meeting;
- approving the promotion of Human Resources Organization Senior Director Mr. P.H. Chen to Vice President.

3.3.3 Major Issues of Record or Written Statements Made by Any Director Dissenting to Important Resolutions Passed by the Board of Directors in 2024 and as of the Date of this Annual Report: None.

3.4 Corporate Governance Implementation Status as Required by Taiwan Financial Supervisory Commission

Assessment Item	Implementation Status			Non-implementation and Its Reason(s)
	Yes	No	Explanation	
1. Does Company follow "Taiwan Corporate Governance Implementation" to establish and disclose its corporate governance practices?	V		The Board of Directors of the Company has approved the establishment of the Corporate Governance Guidelines.	None
2. Shareholding Structure & Shareholders' Rights (1) Does Company have Internal Operation Procedures for handling shareholders' suggestions, concerns, disputes and litigation matters. If yes, has these procedures been implemented accordingly?	V		(1) TSMC has designated appropriate departments, such as Investor Relations Division, Public Relations Division, Shareholders Services & SEC Compliance Department, Legal, etc., to handle shareholder suggestions, concerns, disputes or litigation matters according to relevant internal procedures.	None
(2) Does Company possess a list of major shareholders and beneficial owners of these major shareholders?	V		(2) TSMC tracks the shareholdings of directors, officers, and top ten shareholders.	
(3) Has the Company built and executed a risk management system and "firewall" between the Company and its affiliates?	V		(3) TSMC has set up internal rules in the Company's Internal Control System and Affiliated Corporations Management.	
(4) Has the Company established internal rules prohibiting insider trading on undisclosed information?	V		(4) TSMC has established its "Insider Trading Policy" that applies to all employees, officers and members of the Board of Directors of the Company and to any other person having a duty of trust or confidence, with respect to transactions in the Company's securities. This policy prohibits any insider trading and the Company regularly provides internal training on this issue.	

(Continued)

Assessment Item	Implementation Status			Non-implementation and Its Reason(s)
	Yes	No	Explanation	
3. Composition and Responsibilities of the Board of Directors (1) Has the Board of Directors established a diversity policy, set goals, and implemented them accordingly?	V		(1) Please refer to "3.2 Board of Directors – Board Diversity and Independence" on page 44-45 of this Annual Report.	None
(2) Other than the compensation committee and the audit committee which are required by law, does the Company plan to set up other Board committees?	V		(2) Audit and Risk Committee (Audit Committee is founded in 2002 and renamed in 2023); Compensation and People Development Committee (Compensation Committee is founded in 2003 and renamed in 2023); Nominating, Corporate Governance and Sustainability Committee (founded in 2023); ESG Steering Committee (founded in 2019): is formed by the Company's management team and chaired by Chairman; ESG Committee (founded in 2011): is formed by the Company's executive team and reports quarterly to the Board/Nominating, Corporate Governance and Sustainability Committee on the implementation of plans and results.	
(3) Has the Company established methodology for evaluating the performance of its Board of Directors, on an annual basis, reported the results of performance to the Board of Directors, and use the results as reference for directors' remuneration and renewal?	V		(3) As TSMC's corporate governance concept, the Board of Director's primary responsibility is to supervise, evaluate the management's performance and dismiss officers of the Company when necessary, resolve the important, concrete matters and provide guidance to the management team. TSMC's Board of Directors consists of distinguished members with a great breadth of experience as world-class business leaders or professionals and adhere high ethical standards and commitment to the Company. Each quarter's Board Meeting is last for two days. Company's resolutions are determined in board meeting, also business strategy and future orientation are discussed in the meeting, in order to create best interest for shareholders. Based on TSMC's operating performance and local/international awards of best corporate governance, it certainly proves the Company's excellent performance of Board of Directors. Each year, TSMC conducts regular Board performance self-evaluation in form of written questionnaires for the Board, individual directors, the Audit and Risk Committee, the Compensation and People Development Committee, and the Nominating, Corporate Governance and Sustainability Committee. The Board of Directors are assessed on the following five aspects: 1. Involvement in the Company's operations 2. Enhancement of the quality of the board's decision-making 3. Makeup and structure of the board 4. Election of board members and continuing knowledge development 5. Internal control The individual directors are assessed on the following six aspects: 1. Understanding of the Company's goals and mission 2. Awareness of director's duties 3. Involvement in the Company's operations 4. Internal relationship and communication 5. Director's professionalism and continuing knowledge development 6. Internal control Each functional Committee is assessed on the following five aspects: 1. Involvement in the Company's operation 2. Awareness of the committee's duties 3. Enhancement of the quality of the committee's decision-making 4. Makeup of the committee and election of its members 5. Internal control The Company completed self-assessments of Board performance in 2024 and reported the results to the Board of Directors at its first quarter meeting in 2025 for review and improvement. The weighted average score for the overall performance of the Board of Directors is 4.73 out of 5, that included an average score of 4.78 on a particular assessment item "The board has sufficient discussions over the Company's involvement in the implementation of ESG programs". The weighted average score for the performance of the individual directors is 4.84 out of 5. As demonstrated, the overall board's operation has been effective. On a scale of 5, the weighted average scores for self-assessed performance results of the Audit and Risk Committee, the Compensation and People Development Committee and the Nominating, Corporate Governance and Sustainability Committee are 4.79, 4.84 and 4.63, respectively. As demonstrated, each committee's operation has been effective.	
(4) Does the Company regularly evaluate its external auditors' independence?	V		(4) The Audit and Risk Committee annually evaluates the independence of external auditors and reports the same to the Board of Directors. Please refer to "3.9.4 Evaluation of the External Auditor's Independence and Suitability" on page 67 of this Annual Report.	

(Continued)

Assessment Item	Implementation Status			Non-implementation and Its Reason(s)
	Yes	No	Explanation	
4. Does the Company appoint competent and appropriate corporate governance personnel and corporate governance officer to be in charge of corporate governance affairs (including but not limited to furnishing information required for business execution by directors, assisting directors' compliance of law, handling matters related to board meetings and shareholders' meetings according to law, and recording minutes of board meetings and shareholders' meetings)?	V		The Board of Directors appointed Ms. Sylvia Fang, the Senior Vice President and General Counsel of TSMC as the Corporate Governance Officer. TSMC's Corporate & Compliance Legal Division, which directly reports to the General Counsel, is in charge of assisting in related affairs, including handling of matters relating to Board, Audit and Risk Committee, Compensation and People Development Committee, Nominating, Corporate Governance and Sustainability Committee and Shareholders' meetings in compliance with law, assistance in onboarding and continuing education of directors, provision of information required for performance of duties by directors, and assistance in directors' compliance of law, etc.	None
5. Has the Company established a means of communicating with its Stakeholders (including but not limited to shareholders, employees, customers, suppliers, etc.) or created a Stakeholders Section on its Company website? Does the Company respond to stakeholders' questions on corporate responsibilities?	V		Depending on the situation, the Company's Investor Relations Division, Public Relations Division, Shareholders Services & SEC Compliance Department, Human Resources Organization, Customer Service Department, Procurement Department and ESG will communicate with stakeholders. We also have publicly disclosed the contact information of our corporate spokesperson and relevant departments. Also, we have a stakeholder section on our corporate website to address our sustainability and any other issues. For details, please refer to "7. Corporate Sustainability (ESG)" on page 146-173 of this Annual Report and "Materiality Analysis and Stakeholder Communication" of TSMC's Sustainability Report.	None
6. Has the Company appointed a professional registrar for its Shareholders' Meetings?	V		We have appointed China Trust as registrar for our Shareholders' Meetings.	None
7. Information Disclosure (1) Has the Company established a corporate website to disclose information regarding its financials, business and corporate governance status?	V		(1) TSMC discloses its financials business and corporate governance status on its website at http://www.tsmc.com (in Chinese and English). TSMC's American Depositary Receipt (ADR) is listed on the New York Stock Exchange (NYSE). As a foreign issuer, TSMC must comply with NYSE's rules. We have been operating in accordance with NYSE listing standards, and have been disclosing the major differences between our corporate governance practices and U.S. corporate governance practices. Please see https://www.tsmc.com/download/ir/NYSE_Section_303A.pdf.	None
(2) Does the Company use other information disclosure channels (e.g. maintaining an English-language website, designating staff to handle information collection and disclosure, appointing spokespersons, webcasting investors conference etc.)?	V		(2) TSMC has designated appropriate departments (e.g. the Investor Relations Division, Public Relations Division, Shareholders Services & SEC Compliance Department, etc.) to handle the collection and disclosure of information as required by the relevant laws and regulations of Taiwan and other jurisdictions. TSMC has designated Spokesperson and Deputy Spokesperson as required by relevant regulations.TSMC provides live audio webcasts and replays of investor conferences on its website.	
(3) Does the Company announce and report the annual financial statements within two months after the end of the fiscal year, and announce and report the first, second, and third quarter financial statements as well as the operating status of each month before the prescribed deadline?	V		(3) TSMC follows relevant laws and regulations to announce and report the annual financial statements within two months after the end of the fiscal year, and announce and report the first, second, and third quarter financial statements as well as the operating status of each month before the prescribed deadline. Please refer to Market Observation Post System for the aforementioned disclosure.	
8. Has the Company disclosed other information to facilitate a better understanding of its corporate governance practices (e.g. including but not limited to employee rights, employee wellness, investor relations, supplier relations, rights of stakeholders, directors' training records, the implementation of risk management policies and risk evaluation measures, the implementation of customer relations policies, and purchasing insurance for directors)?	V		(1) For employee rights and employee wellness, please refer to "5.6 Human Capital" on page 112-119 of this Annual Report. (2) For investor relations, supplier relations and rights of stakeholders, please refer to "7. Corporate Sustainability (ESG)" on page 146-173 of this Annual Report. (3) For Directors' training records, please refer to "Continuing Education/Training of Directors in 2024" on page 46-47 of this Annual Report. (4) For Risk Management Policies and Risk Evaluation, please refer to "6.2 Risk Management" on page 127-145 of this Annual Report. (5) For Customer Relations Policies, please refer to "5.4 Customer Trust" on page 109-111 of this Annual Report. (6) TSMC maintains D&O Insurance for its directors and officers.	None
9. The improvement status for the result of Corporate Governance Evaluation announced by Taiwan Stock Exchange TSMC was ranked in top 5% in Corporate Governance Evaluation over the years. The improvement status in 2024 is as follows: TSMC received a AAA (the highest tier) certificate by Taiwan Intellectual Property Management System (TIPS) from Industrial Development Administration, Ministry of Economic Affairs in December 2024 again, and the valid period will expire after December 31, 2027.				

3.5 Code of Ethics and Business Conduct

Ethics at TSMC

"Integrity" is TSMC's most important core value. TSMC strictly adheres to the highest standards of integrity and promotes good ethical behavior to sustain the hard-earned trust and confidence of its shareholders, customers, suppliers, employees and the general public – constantly and vigilantly promoting integrity, fairness, and transparency in all that we say and do. We have zero tolerance for corruption, refrain from bribery, fraud, abuse or embezzlement of corporate assets, and prohibit the advancement of personal interests at the expense of or in conflict with TSMC. At the heart of our corporate governance culture is the "TSMC Ethics and Business Conduct Policy" (Ethics Code). The Ethics Code requires that each employee bear a heavy personal responsibility to preserve and to protect TSMC's ethical values and reputation. At the same time, we have formulated the "TSMC's Supplier Code of Conduct" as well to ensure our suppliers understand and follow the Ethics Code and together fulfill our corporate social responsibilities.

Specifically, every TSMC employee must adhere to the following:

- Do not advance personal interests at the expense of or in conflict with the Company;
- Refrain from corruption (including collusion with others), bribery, unfair competition, fraud, extortion, embezzlement, and waste or abuse of corporate assets;
- Avoid any improper efforts to influence the decisions of anyone, including government officials, agencies, as well as TSMC's customers and suppliers;
- Do not undertake any practices detrimental to TSMC, to the environment, or to society;
- Procure all of our raw materials from socially responsible sources;
- Protect proprietary information of TSMC, our customers and suppliers; and
- Abide by the letter of all applicable laws, rules and regulations.

The protection of intellectual properties is also an important part of TSMC's Ethics Code. In order to build and sustain an environment of innovation, technology leadership, and sustainable profitable growth, the Ethics Code requires that TSMC promotes business relationships founded upon an unwavering respect for the intellectual property rights, proprietary information and trade secrets of TSMC, our customers, and others.

With regarding to public disclosures, TSMC's officers, especially our CEO, CFO, and General Counsel, with oversight from our Board, are responsible for the full, fair, accurate, timely, and understandable financial accounting and financial disclosure in reports and documents filed by the Company with securities authorities and in all TSMC public communications and disclosures. TSMC has a variety of measures in place to ensure compliance with these disclosure obligations.

Any modification to the Ethics Code requires the approval of our Audit and Risk Committee to ensure our ethics compliance program is independently reviewed against corporate best practices.

Ethics Code Implementation

High Standard of Ethics Culture: Our ethics program is implemented in four ways by all of TSMC's Board members, officers, and employees. First, the TSMC management team sets the "tone from top" by acting in accordance with the Ethics Code so that they will be an example to all stakeholders. Second, working-level managers are responsible for ensuring their staff's understanding of and compliance with applicable rules and regulations. Third, TSMC encourages an environment of open communications in discussing any questions related to the Ethics Code. Any employee may consult his or her direct supervisors, Human Resources or Legal to obtain timely and appropriately advice. Lastly, TSMC requires all employees to stay vigilant and report any noncompliance by anyone to their supervisors, the function head of Human Resources, the responsible corporate senior management appointed by CEO that oversees the Ombudsman system, or to the Chairman of the Audit and Risk Committee directly.

Self-Assessment of All Departments and Employees: Self-assessment of all departments and employees is an important part of our ethics compliance program. All TSMC departments and subsidiaries are required to conduct Control Self-Assessment (CSA) tests annually in reviewing employees' awareness of the Ethics Code, and to evaluate and strengthen the effectiveness of internal control related to the Ethics Code. The CSA results are reviewed to track the results of our compliance program. In addition, all employees must disclose any matters that cause, or may cause, actual or potential conflict of interest. In addition to newly hired employees who are asked to declare conflicts of interest when joining TSMC, employees with specific job grades or job responsibilities must annually declare any relationships that may constitute a conflict of interest, which enables TSMC to take necessary arrangements and report the results to the Audit and Risk Committee.

Internal Auditing: The Internal Auditor of TSMC plays a critical role in ensuring the Company's compliance with the Ethics Code and relevant rules and regulations. To ensure that our financial, managerial, and operating information is accurate, reliable, and timely and that our employees' actions are in compliance with applicable policies, standards, procedures, laws and regulations, our Internal Auditor conducts audits of various control points within the Company in accordance with its annual audit plan approved by the Board of Directors and subsequently reports its audit findings and remedial issues to the Board and management on a regular basis.

Training and Promotion: To promote awareness to our employees of their responsibilities under the Ethics Code, we publish our Ethics Code and related policies and documents on our intranet and, provide training courses, posters, emails, and other diversified ways to advocate the Company's core values and compliance system. In terms of training courses, TSMC not only provides annual online course on the Ethics Code and requires all employees to complete the training, as well as face-to-face training courses delving into more specific ethics-related topics for targeted employees. In 2024, there were 77,293 attendances that completed the "Annual Ethics and Compliance Training Course" (mandatory 0.5 hour online course) at TSMC and its subsidiaries, both completion rate and exam pass rate reaching 100%.

In addition to our internal compliance efforts, we expect and assist our business partners such as customers and suppliers, and any other entities with whom we deal (include consultants or third party agents who act for or on behalf of TSMC) to recognize and understand TSMC's ethical standards to fulfill our responsibilities as a corporate citizen. For instance, we require all of our first-tier suppliers to declare in writing that they will respect and comply with TSMC's ethical standards and culture. TSMC is a full member of the Responsible Business Alliance (RBA, formerly the Electronic Industry Citizenship Coalition, EICC). In addition to adopting the RBA Code of Conduct at all of its facilities, TSMC applied the RBA's standards to enhance our audit program of our suppliers and relevant business partners. We provide training and communicate our ethical culture to our suppliers through live seminars and online programs. For example, we held a sustainable supply chain ESH forum to share/exchange practical experiences on topics such as the Ethics Code, environmental protection, and occupational safety. We also exchange views on appropriate business conduct and TSMC's ethical standards and implementation status with our customers as part of customer audit programs and questionnaires.

Reporting Channels and Whistleblower Protection

TSMC has established and published its "Complaint Policy and Procedure for Certain Accounting & Legal Matters" and pledges to comply with the relevant regulations in the policy. Open and multiple reporting channels are available for internal and external voices to protect the rights and interests of stakeholders and the Company. All reported incidents collected from reporting channels inside or outside of TSMC are properly recorded and traced. TSMC also prohibits any form of retaliation by providing proper protection for any individual who in good faith reports a suspected violation or participates in an investigation.

TSMC investigates each individual case according to its characteristics through specific divisions, and treats every received case seriously, carefully, and effectively to ensure the accuracy of the investigation. The TSMC Ethics Committee will evaluate each case to determine whether it is an exceptional case or whether it results from systemic issues of insufficient awareness in ethics. This allows TSMC to continue evaluating whether it is necessary to improve its management and internal control procedures. Awareness such as emails to employees describing the violations and disciplinary actions in each quarter are conducted to promote employees' awareness and avoid recurrence of similar incidents.

In 2024, TSMC did not receive any reports related to insider trading, money laundering, or other finance, accounting or antitrust matters, nor did we receive any complaints concerning breach of customer privacy and loss of customer data, or any material regulatory violations (where a fine exceeds NT$1 million), including non-monetary sanctions.

In 2024, the incidents reported through the Audit and Risk Committee Whistleblower System, Ombudsman System, and Irregular Business Conduct Reporting System totaled 358. Among them, 236 cases were related to people management/employee relations, 106 cases were categorized as others (e.g., asking personal questions or private matters), and 16 cases were related to ethics. One incident was verified upon investigation and determined for disciplinary action by the Ethics Committee. In 2024, TSMC leveraged the one violation to strengthen ethics promotion for employees and suppliers in supplier-related activities. Below are the summary of reported incidents and reporting area.

Case	FY2020	FY2021	FY2022	FY2023	FY2024
Total reported cases	246	327	335	348	358
Ethics-related cases	22	17	11	13	16
Cases investigated and verified as ethics violations	6	4	4	5	1 (Note 1)
Sexual Harassment Investigation Committees Formed	4	14	19	35	50
Cases investigated and verified as violations	2	11	14	23	28 (Note 2)

Note 1: This verified case involved employees who failed to follow the standard procedures for receiving materials and replacing parts, resulting in discrepancies between inventory records and actual stock. Depending on the severity of their involvement, the employees were subject to disciplinary actions, including dismissal, retention with a probationary review, removal from managerial positions, and cancellation of bonuses.

Note 2: Employees who violated Company sexual prevention policy (the "Policy") were disciplined by the Company based on the case-by-case nature and severity of the verified misbehaviors. Since these violations involved various inappropriate behaviors, the Company leveraged the violations and summarized the Policy to educate employees what kinds of behaviors could be viewed as sexual harassment and the consequences as well as emphasize the type and possible consequences for power harassment in 2024 TSMC annual sexual harassment prevention training so as to raise employees' awareness.

Cases Investigated and Verified as Violations in Different Reporting Area	FY2020	FY2021	FY2022	FY2023 (Note)	FY2024
Corruption or Fraud	6	4	4	2	1
Discrimination or Harassment	2	11	14	23	28
Customer Privacy Data	0	0	0	0	0
Conflicts of Interest	–	–	–	1	0
Money Laundering or Insider Trading	–	–	–	0	0
Antitrust	0	0	0	0	0
Others	–	–	–	2	0

Note: The reporting area classification is starting from 2023.

Ethics Code Violation Disciplinary Action

TSMC has zero tolerance for violation of the Ethics Code of any kind and treat every possible violation case seriously. For example, any employee who violates the Ethics Code (or relevant regulations) is subject to disciplinary actions in accordance with TSMC procedures, up to and including termination of employment, and will negatively affect their annual performance reviews (including bonus adjustment). Similarly, severe consequences, including business termination and legal actions when appropriate, will be taken against any violating supplier.

3.5.1 Corporate Conduct and Ethics Implementation Status as Required by Taiwan Financial Supervisory Commission

Assessment Item	Implementation Status			Causes for the Difference
	Yes	No	Summary	
1. Establishment of Corporate Conduct and Ethics Policy and implementation Measures				None
(1) Does the company have a clear ethical corporate management policy approved by its Board of Directors, and bylaws and publicly available documents addressing its corporate conduct and ethics policy and measures, and commitment regarding implementation of such policy from the Board of Directors and the top management team?	V		(1) Integrity is the most important core value of TSMC's culture. TSMC is committed to acting ethically in all aspects of our business. We have established TSMC Code of Ethics and Business Conduct (the "Ethics Code") to require that each employee bears a heavy personal responsibility to uphold TSMC's ethics value. For more details on the Ethics Code and the measures that TSMC Board of Directors (the "Board") and the management team take to ensure compliance of the Ethics Code please refer to TSMC's Annual Report and the Sustainability Report.	
(2) Whether the company has established an assessment mechanism for the risk of unethical conduct, regularly analyzes and evaluates within a business context, the business activities with a higher risk of unethical conduct, has formulated a program to prevent unethical conduct with a scope no less than the activities prescribed in paragraph 2, Article 7 of the Ethical Corporate Management Best Practice Principles for TWSE/GTSM Listed Companies?	V		(2) At the heart of our corporate governance culture is the Ethics Code that applies to TSMC and its subsidiaries, and this Ethics Code requires that each employee bears a heavy personal responsibility to preserve and to protect TSMC's ethical values and reputation and to comply with various applicable laws and regulations. Specific requirements under the Ethics Code could be found in our Annual Report. In addition, to educate and remind our employees of their responsibilities under the Ethics Code, we publish our Ethics Code, relevant policies and documents on our intranet and promote its awareness through training courses, posters, emails, and other diversified ways to advocate the company's core values and compliance. Furthermore, to ensure that our conduct meets relevant legal requirements and the highest ethical standards under the Ethics Code, TSMC provides multiple channels for reporting business conduct concerns. Please refer to Assessment Item 3 for details. We do not tolerate any violation of the Ethics Code and treat every possible violation incident seriously. Each violator of the Ethics Code (or relevant regulations), for employees, in addition to affecting individual annual performance evaluation, will be severely disciplined to the full extent of our policies and the law, up to and including immediate dismissal, or termination of business relationship for suppliers, and judicial prosecution as appropriate.	
(3) Whether the company has established relevant policies that are duly enforced to prevent unethical conduct, provided implementation procedures, guidelines, consequences of violation and complaint procedures, and periodically reviews and revises such policies?	V		(3) Under the framework of the Ethics Code, TSMC has established a regulatory compliance program that includes policies, guidelines and procedures in other policy areas, including: Corporate Governance, Securities Laws, Anti-corruption, Anti-harassment, Anti-discrimination, Labor Laws, Anti-trust (fair competition), Environmental Protection, Safety and Health, Export Control, Financial Reporting, Insider Trading, Intellectual Property, Proprietary Information Protection, Personal Data Protection, Record Retention and Disposal, as well as procuring certain raw materials from socially responsible sources (Conflict-free Minerals). The above-mentioned policies are crucial in facilitating overall compliance with the Ethics Code. TSMC provided an "Annual Ethics and Compliance Training Course" (mandatory 0.5 hour online course) covering various important regulatory compliance topics and a total of 77,293 employees (including employees in subsidiaries) completed this training course, both completion rate and exam pass rate reaching 100%. TSMC, its employees and its subsidiaries are expected to fully understand and comply with all laws and regulations that govern our businesses, as well as relevant policies, guidelines and procedures, and make ethical decisions in every circumstance. The Internal Auditor of TSMC also plays a critical role in ensuring the Company's compliance with the Ethics Code and relevant rules and regulations. To ensure that our financial, managerial, and operating information is accurate, reliable, and timely and that our employee's actions are in compliance with applicable policies, standards, procedures, laws and regulations, our Internal Auditor conducts audits of various control points within the Company in accordance with its annual audit plan approved by the Board of Directors and subsequently reports its audit findings and remedial issues to the Board and Management on a regular basis.	

(Continued)

Assessment Item	Implementation Status			Causes for the Difference
	Yes	No	Summary	
2. Ethic Management Practice (1) Whether the company has assessed the ethics records of whom it has business relationship with and include business conduct and ethics related clauses in the business contracts?	V		(1) We expect and assist our customers, suppliers, business partners, and any other entities with whom we deal (such as consultant or third party agents who act for or on behalf of TSMC) to understand and act in accordance with TSMC's ethical standards. For instance, we require all of our suppliers to declare in writing that they will respect and comply with TSMC's ethical standards and culture. In addition to periodic audit, we provide training and communicate our ethical culture to our suppliers through live seminars or online programs to prevent any unethical conduct. We exchange views on appropriate business conduct and TSMC's ethical standards with our customers as part of customer audit programs and questionnaires.	None
(2) Whether the company has set up a unit which is dedicated to promoting the company's ethical standards and regularly (at least once a year) reports directly to the Board of Directors on its ethical corporate management policy and relevant matters, and program to prevent unethical conduct and monitor its implementation?	V		(2) TSMC's Board of Directors strives to perform the responsibilities of supervising the corporate conduct and ethics compliance practice through the Audit and Risk Committee and the Compensation and People Development Committee, the hiring of a financial expert consultant for the Audit and Risk Committee, and coordination with the Internal Audit department. The General Counsel and the Corporate & Compliance Legal Division (which directly reports to the General Counsel) promotes the Company's ethical standards, and the General Counsel reports quarterly to the Board on the implementation status. In addition, both the responsible senior manager appointed by the CEO to oversee the Ombudsmen system and Internal Auditors update the Board on ethical standards and compliance issues on a regular basis. Moreover, TSMC's officers, especially our CEO, CFO, and General Counsel, with oversight from our Board, are responsible for the full, fair, accurate, timely, and understandable financial accounting and financial disclosure in reports and documents filed by the Company with securities authorities and in all TSMC public communications and disclosures.	
(3) Whether the company has established policies to prevent conflict of interests, provide appropriate communication and complaint channels and implement such policies properly?	V		(3) TSMC requires newly hired employees to declare any conflict of interest when joining TSMC. In addition, according to the Ethics Code, all employees must declare any actual or potential conflict of interest. Furthermore, employees with specific job grades or positions need to complete the conflict of interest declarations annually.	
(4) To implement relevant policies on ethical conducts, has the company established effective accounting and internal control systems, audit plans based on the assessment of unethical conduct, and have its ethical conduct program audited by internal auditors or CPA periodically?	V		(4) TSMC continues maintaining the integrity of its financial reporting processes and controls and establishes appropriate internal control systems for preventing higher potential unethical conduct, and the Internal Auditors formulate annual audit plans based on the results of the risk assessment and subsequently reports its audit findings and remedial issues to the Board and Management on a regular basis. In addition, all departments and subsidiaries of TSMC are also required to conduct Control Self-Assessment (CSA) tests annually to review the effectiveness of the internal control system.	
(5) Does the company provide internal and external ethical conduct training programs on a regular basis?	V		(5) Training is a major component of our compliance program, conducted throughout the year to refresh TSMC's employees' commitment to ethical conduct, and to get updated information on laws and regulations related to their daily operations. Please refer to Assessment Item 1 for more information regarding the training courses. As for our suppliers, we communicate our ethical culture to our business partners through live seminars or online programs to ensure their fully understanding of our commit to ethical conduct.	
3. Implementation of Complaint Procedures (1) Does the company establish specific complaint and reward procedures, set up conveniently accessible complaint channels, and designate responsible individuals to handle the complaint received?	V		(1) TSMC has implemented the "Complaint Policy and Procedures for Certain Accounting and Legal Matters" that allows employees or any whistleblowers with relevant evidence to report any financial, legal, or ethical irregularities anonymously through the Audit and Risk Committee Whistleblower System, Ombudsman System, and Irregular Business Conduct Reporting System. TSMC also requires all employees to stay vigilant and whistle-blow any noncompliance by anyone to their supervisors, the function head of Human Resources, or through those current reporting channels.	None
(2) Whether the company has established standard operation procedures for investigating the complaints received, follow-up measures after investigation are completed, and ensuring such complaints are handled in a confidential manner?	V		(2) TSMC treats any complaint and the investigation thereof in a confidential and sensitive manner, as is clearly stated in our bylaws.	
(3) Does the company adopt proper measures to prevent a complainant from retaliation for his/her filing a complaint?	V		(3) TSMC strictly prohibits any form of retaliation against any individual who in good faith reports or helps with the investigation of any complaint, as is clearly stated in our bylaws.	
4. Information Disclosure Does the company disclose its guidelines on business ethics as well as information about implementation of such guidelines on its website and Market Observation Post System ("MOPS")?	V		TSMC provides the guidelines and informative articles related to ethics and honorable business conduct on its internal website (in both Chinese and English) for employees' easy access. In addition, TSMC posts its Annual Report (which is also available at the MOPS) and Sustainability Report on its external website (in both Chinese and English, available at: http://www.tsmc.com) to disclose TSMC Ethics Code and the information about implementation of the Ethics Codes.	None
5. If the company has established corporate governance policies based on Ethical Corporate Management Best Practice Principles for TWSE/GTSM Listed Companies, please describe any discrepancy between the policies and their implementation. TSMC has established the Ethics Code to require that all employees, officers and board members comply with the Ethics Code and the other policies and procedures. There is no discrepancy between the Ethics Code, including its affiliate policies and procedures, and its implementation. For more details, please refer to "3.5 Code of Ethics and Business Conduct" on page 59-63 of this Annual Report.				
6. Other important information to facilitate better understanding of the company's corporate conduct and ethics compliance practices (e.g., review the company's corporate conduct and ethics policy). For details on the implementation of TSMC's corporate conduct and ethics, please refer to "3.5 Code of Ethics and Business Conduct" on page 59-63 of this Annual Report.				

3.6 Regulatory Compliance

TSMC's compliance systems are comprised of a series of legislation monitoring, developing and implementation of effective compliance policies and programs, training, and maintaining open reporting channels.

Legislative Monitoring

TSMC operates in many countries. To comply with governing legislation, applicable laws, regulations and regulatory expectations, we closely monitor domestic and foreign government policies and regulatory developments that could materially impact TSMC's business and financial operations. Our Legal organization periodically updates our relevant internal departments, management and the Audit and Risk Committee of applicable regulatory changes so that internal teams ensure compliance with new regulatory requirements in a timely manner. We are also a proactive advocate for legislative and regulatory reform, and our comments and recommendations on legal reforms to the government have been accepted constructively. TSMC is increasingly dedicated to identifying potential regulatory issues and will continue to be involved in advocating public policy changes that foster a positive and fair business environment.

Policy and Compliance Program Development and Implementation

TSMC has established a regulatory compliance program that includes policies, guidelines and procedures in different compliance areas, including: Corporate Governance, Securities Laws, Anti-corruption, Anti-harassment, Anti-discrimination, Labor Laws, Antitrust (fair competition), Environmental Protection, Safety and Health, Export Control, Financial Reporting, Insider Trading, Intellectual Property, Proprietary Information Protection, Personal Data Protection, Record Retention and Disposal, as well as procuring certain raw materials from socially responsible sources (Conflict-free Minerals). It is our belief that these policies are crucial in strengthening overall compliance with the Ethics Code and compliance program. TSMC, its employees and its subsidiaries are expected to fully understand and comply with all laws and regulations that govern our businesses, as well as internal relevant policies, guidelines and procedures, and make ethical decisions in every circumstance.

Compliance Awareness Training

Training is one of the major components of our regulatory compliance program. To get updated information on laws and regulations related to their daily operations and to strengthen TSMC's employees' commitment to regulatory compliance and ethical conduct through regular promotion and training courses. Highlights of our training include:

- Multiple types for training and promotion: TSMC enriches employees' information sources for regulatory compliance through various promotion activities. Awareness promotion emails to employees, posters at our facilities, and compliance guidelines, news articles, tips and FAQs which our employees can access through our intranet.
- Customized face-to-face training courses for different business attributes: For important specific laws and regulations, TSMC provides face-to-face seminars. These customized training is made mandatory for those employees whose job responsibilities are especially relevant to a particular topic to ensure sufficient awareness of relevant laws and internal policies.
- Various on-line courses available to employees at any time: On-line learning programs updated frequently to provide most up-to-date information and timely and flexible access for employees to understand the law and key compliance issues, covering topics of Corporate Governance, Securities Laws, Anti-corruption, Anti-harassment, Anti-discrimination, Labor Laws, Antitrust (fair competition), Environmental Protection, Safety and Health, Export Control, Financial Reporting, Insider Trading, Intellectual Property, Proprietary Information Protection, Personal Data Protection, Record Retention and Disposal, as well as "Conflict-free Minerals" among others. The course contents will be updated with changes in applicable laws or TSMC internal policies to ensure the timeliness and accuracy of the course contents.
- Continuous training of the Legal team: TSMC's Legal team actively participate in external professional courses held in Taiwan or abroad to receive current developments of new laws and regulations and track the latest developments in various professional legal fields, and for its lawyers to comply with applicable continuing legal education requirements. External experts are also invited to give in-house lectures on key issues.

Reporting Channels

TSMC provides multiple channels for reporting business conduct concerns to ensure that our conduct meets relevant legal requirements and the highest ethical standards under the Ethics Code. For more details about the reporting channels, please refer to "3.5 Code of Ethics and Business Conduct" on page 59-63 of this Annual Report.

Major Accomplishments

In 2024, TSMC achieved several major accomplishments in regulatory compliance. Externally, in addition to fulfilling the Company's obligations toward regulatory compliance matters, TSMC exercised its civic duties as a responsible corporate citizen by providing feedback on current regulations and regulations in legislation, with the intent to improve Taiwan's industrial investment environment, enhance economic development, and help align domestic laws with international law. Furthermore, TSMC continues to focus on the topics related to the Company Law, the Securities and Exchange Act, intellectual property protection and environment protection. In addition, TSMC shared its practices and experiences on trade secrets, labor rights, regulatory compliance system and reporting channel with outside institutions.

Internally, TSMC provides multiple courses about legal and regulatory compliance. The important achievements are as follows:

- Ethics and Compliance: TSMC provided an "Annual Ethics and Compliance Training Course" (mandatory 0.5 hour online course) covering various important regulatory compliance topics and a total of 77,293 employees (including employees in subsidiaries) completed this training course, both completion rate and exam pass rate reaching 100% – with all production staffs were starting from 2019.
- Export Compliance: TSMC's export management system (EMS) and policy have been in place for a number of years, and was certified by the International Trade Administration, the Taiwan regulator, as a qualified Internal Compliance Program (ICP) exporter. It aims to ensure that TSMC complies with all applicable regulations covering the export of information, technologies, products, materials and equipment. In addition, TSMC implements "No ECCN, No Shipment" control and customers are required to provide end use and export control classification number (ECCN) of their products, among other required information, for TSMC to apply for applicable export licenses. To further enhance relevant employees' awareness of the export control requirements, in addition to a poster awareness campaign, in 2024 TSMC altogether provided 9 face-to-face meeting sessions and a targeted on-line learning program to employees in relevant functions.
- Supplier Management: TSMC shares and exchanges practical experiences with suppliers with sales offices in Taiwan by holding a sustainable supply chain ESH forums on topics such as Ethics Code, environmental protection and occupational safety. In 2024, a total of 360 attendees from 152 suppliers participated (including through on-line meeting) in these activities.
- Conflict-Free Supply Chain: As a recognized global leader in the Hi-tech supply chain, we acknowledge our corporate social responsibility to strive to procure conflict-free minerals in an effort to recognize humanitarian and ethical social principles that protect the dignity of all persons. Meanwhile, we have implemented a series of compliance safeguards in accordance with industry leading practices, requesting suppliers to fill in the "Conflict Minerals Reporting Template" and sign the "TSMC Conflict-Free Minerals Declaration" every year. TSMC will continuously make progress to ensure a conflict-free supply chain.
- Personal Data Protection: Because of the importance of personal data protection, TSMC periodically reviews the Rules of Privacy and Personal Data Protection and external and internal privacy policies to identify the needs to update such documents. Based on current personal data protection laws and risks, TSMC conducts an annual training on privacy and personal data protection to enhance employees' awareness and compliance. In addition, the Personal Data Protection Committee composed of Legal, Human Resources, and IT divisions convene on an annual basis to assist the implementation of and monitoring compliance with the rules. Furthermore, the Personal Data Protection Working Taskforce established under the Personal Data Protection Committee assists various TSMC functions by holding meetings to ensure that their business operations and system implementations comply with the rules.
- Antitrust Compliance: Based on annual antitrust risk assessment results, TSMC identified functions with potential higher risk from an antitrust perspective. To enhance targeted functions' employee awareness of the importance of competition and antitrust laws and issues during daily operations, TSMC established antitrust training programs and conducted several antitrust trainings, via either face-to-face or on-line training sessions, for global sales personnel at Taiwan, North America, Europe, Asia Pacific, Japan and mainland China areas, and employees in other relevant departments.
- Insider Trading Compliance: To implement our insider trading regulatory compliance program and to strengthen employees' awareness, in addition to introducing the basic concepts of insider trading in the"Annual Ethics and Compliance Training Course", using posters to promote important concepts from time to time, we developed an on-line advanced program for employees to take at any time. In 2024, a total of 451 employees completed this insider trading on-line advanced program (0.5 hour-length course), with the exam pass rate reaching 100%.

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3.7 Internal Control System Execution Status

3.7.1 Statement of Internal Control System

Taiwan Semiconductor Manufacturing Company Limited

Statement of Internal Control System

February 12, 2025

Based on the findings of a self-assessment, Taiwan Semiconductor Manufacturing Company Limited (TSMC) states the following with regard to its internal control system during the year 2024:

1. TSMC's Board of Directors and management are responsible for establishing, implementing, and maintaining an adequate internal control system. Internal control system is designed to provide reasonable assurance over the effectiveness and efficiency of our operations (including profitability, performance and safeguarding of assets), reliability, timeliness, transparency and regulatory compliance of our reporting, and compliance with applicable rulings, laws and regulations.
2. An internal control system has inherent limitations. No matter how perfectly designed, an effective internal control system can provide only reasonable assurance of accomplishing its stated objectives. Moreover, the effectiveness of an internal control system may be subject to changes due to extenuating circumstances beyond our control. Nevertheless, our internal control system contains self-monitoring mechanisms, and TSMC takes immediate remedial actions in response to any identified deficiencies.
3. TSMC evaluates the design and operating effectiveness of its internal control system based on the criteria provided in the Regulations Governing the Establishment of Internal Control Systems by Public Companies (herein below, the "Regulations"). The criteria adopted by the Regulations identify five key components of managerial internal control: (1) control environment, (2) risk assessment, (3) control activities, (4) information and communication, and (5) monitoring activities. Each component also includes several items which can be found in the Regulations.
4. TSMC has evaluated the design and operating effectiveness of its internal control system according to the aforesaid Regulations.
5. Based on the findings of such evaluation, TSMC believes that, on December 31, 2024, it has maintained, in all material respects, an effective internal control system (that includes the supervision and management of our subsidiaries), to provide reasonable assurance over our operational effectiveness and efficiency, reliability, timeliness, transparency and regulatory compliance of reporting, and compliance with applicable rulings, laws and regulations.
6. This Statement is an integral part of TSMC's annual report and prospectus, and will be made public. Any falsehood, concealment, or other illegality in the content made public will entail legal liability under Articles 20, 32, 171, and 174 of the Securities and Exchange Law.
7. This Statement was passed by the Board of Directors in their meeting held on February 12, 2025, with none of the ten attending directors expressing dissenting opinions, and the remainder all affirming the content of this Statement.

Taiwan Semiconductor Manufacturing Company Limited

C.C. Wei,
Chairman & Chief Executive Officer

3.7.2 If CPA Was Engaged to Conduct a Special Audit of Internal Control System, Provide Its Audit Report: None.

3.8 Status of Personnel Responsible for the Company's Financial Operation

Certification of Employees Whose Jobs Are Related to the Release of the Company's Financial Information

Certification	Number of Employees	
	Internal Audit	Finance
Certified Public Accountants (CPA)	3	64
US Certified Public Accountants (US CPA)	3	24
Certified Internal Auditor (CIA)	6	3
Chartered Financial Analyst (CFA)	-	4
Certified Management Accountant (CMA)	-	1
Financial Risk Manager (FRM)	-	2
Certified Information Systems Auditor (CISA)	6	-
Certified Fraud Examiner (CFE)	3	-

3.9 Information Regarding TSMC's Independent Auditor

3.9.1 Audit Fees

The Audit and Risk Committee approves all fees payable to TSMC's independent auditor and recommends the same to the Board of Directors for further approval. The Board of Directors has authorized the Audit and Risk Committee to approve any increase not exceeding 10% of the approved fees.

Unit: NT$ thousands

Accounting Firm	Name of CPA	CPA's Audit Period	Audit Fee	Non-audit Fee (Note)	Total	Remark
Deloitte & Touche	Shih-Tsung Wu and Shang-Chih Lin	01/01/2024–12/31/2024	72,175	9,186	81,361	-

Note: The fees were mainly related to audit of annual income tax returns.

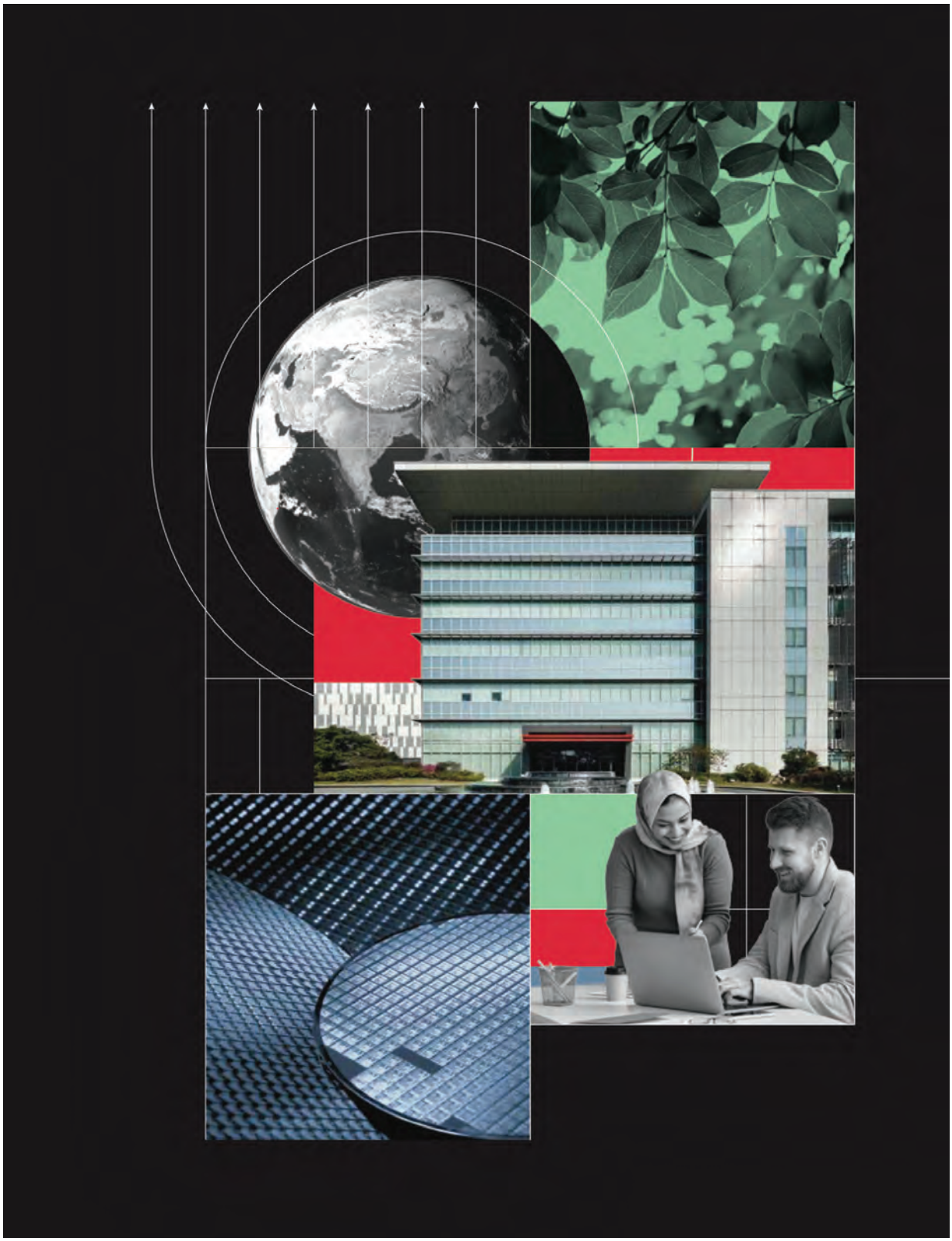
3.9.2 TSMC Did Not Replace Its Independent Auditor during 2023, 2024, and as of February 28, 2025.

3.9.3 TSMC's Chairman, Directors, Chief Executive Officer, Chief Financial Officer, and Managers in Charge of Its Finance and Accounting Operations Did Not Hold Any Positions within TSMC's Independent Audit Firm or Its Affiliates in the Most Recent Year.

3.9.4 Evaluation of the External Auditor's Independence and Suitability

The Audit and Risk Committee annually monitors the independence and suitability of TSMC's external auditor by conducting the following evaluation standards and reports the same to the Board of Directors:

1. The auditor's independence declaration
2. The Audit and Risk Committee pre-approves all audit and non-audit services conducted by the auditor to ensure that the non-audit services do not influence the results of the audit
3. Ensure the audit partner rotates every five years
4. Annually evaluate the independence and suitability of the external auditor based on the results of the auditor survey and the Audit Quality Indicator (AQI) released by Financial Supervisory Commission (FSC) regarding its financial interests, commercial relations, employment relations, etc.



4

Capital & Shares

TSMC continued to increase our investment in R&D to US$6.361 billion to extend our technology leadership and differentiation.

4.1 Capital and Shares

4.1.1 Capitalization

Unit: Shares/NT$ — As of 02/28/2025

Month/ Year	Face Value Per Share	Authorized Share Capital		Capital Stock		Remark		
		Shares	Amount	Shares	Amount	Sources of Capital	Capital Increase by Assets Other than Cash	Date of Approval (Month/Day/Year) & Approval Document No.
03/2024	10	28,050,000,000	280,500,000,000	25,935,030,992	259,350,309,920	Employee Restricted Stock Awards Issuance: NT$29,600,000	None	03/11/2024 Chu Shang Tzu No. 1130007178
06/2024	10	28,050,000,000	280,500,000,000	25,933,629,242	259,336,292,420	Employee Restricted Stock Awards Cancellation: NT$14,017,500	None	06/20/2024 Chu Shang Tzu No. 1130019255
09/2024	10	28,050,000,000	280,500,000,000	25,932,733,242	259,327,332,420	Employee Restricted Stock Awards Issuance: NT$23,530,000; Cancellation of Treasury Shares: NT$32,490,000	None	09/11/2024 Chu Shang Tzu No. 1130029188

Note: On 03/01/2025, based on the vesting conditions, 17,341 common shares, 26,380 common shares and 74,000 common shares in the form of Employee Restricted Stock Awards for year 2021, year 2022 and year 2023, respectively, were reclaimed and will be cancelled subsequently.

4.1.2 Capital and Shares

Unit: Shares — As of 02/28/2025

Type of Stock	Authorized Share Capital		Total
	Listed Shares	Unissued Shares	
Common Stock	25,932,733,242	2,117,266,758	28,050,000,000

Shelf Registration in Taiwan: None.

4.1.3 Major Shareholders

Common Shares

As of 12/18/2024 (Note)

Shareholders	Shareholding	Shareholding Percentage
ADR-Taiwan Semiconductor Manufacturing Company Ltd.	5,313,843,923	20.49%
National Development Fund, Executive Yuan	1,653,709,980	6.38%
Citibank (Taiwan) Ltd. in custody for Government of Singapore	682,006,536	2.63%
Citibank (Taiwan) Ltd. in custody for Norges Bank	461,734,025	1.78%
JPMorgan Chase Bank N.A., Taipei Branch in custody for Vanguard Total International Stock Index Fund, a series of Vanguard Star Funds	337,167,748	1.30%
JPMorgan Chase Bank N.A., Taipei Branch in custody for Vanguard Emerging Markets Stock Index Fund, a series of Vanguard International Equity Index Funds	311,573,605	1.20%
New Labor Pension Fund	302,276,555	1.17%
Yuanta/P-shares Taiwan Top 50 ETF	233,901,369	0.90%
iShares Core MSCI Emerging Markets ETF	217,727,000	0.84%
JPMorgan Chase Bank N.A. Taipei Branch in Custody for EuroPacific Growth Fund	189,344,553	0.73%

Note: Record date for the second quarter of 2024 cash dividend distribution.

4.1.4 Net Change in Shareholding by Directors, Management and Shareholders with 10% Shareholdings or More

Common Shares

Unit: Shares

Title Name	2024		01/01/2025 - 02/28/2025	
	Net Change in Shares Held	Net Change in Shares Pledged	Net Change in Shares Held	Net Change in Shares Pledged
Former Chairman Mark Liu (Note 1)	2,268	-	-	-
Chairman & Chief Executive Officer C.C. Wei	-	-	-	-
Director F.C. Tseng	-	-	-	-
Director National Development Fund, Executive Yuan Representative: Chin-Ching Liu (Note 2)	-	-	-	-
	-	-	-	-
Independent Director Sir Peter L. Bonfield	-	-	-	-
Independent Director Kok-Choo Chen (Note 1)	-	-	-	-
Independent Director Michael R. Splinter	-	-	-	-
Independent Director Moshe N. Gavrielov	-	-	-	-
Independent Director Yancey Hai (Note 1)	-	-	-	-
Independent Director L. Rafael Reif	-	-	-	-
Independent Director Ursula M. Burns (Note 3)	-	-	-	-
Independent Director Lynn L. Elsenhans (Note 3)	-	-	-	-
Independent Director Chuan Lin (Note 3)	-	-	-	-
Executive Vice President and Co-Chief Operating Officer Y.P. Chyn	-	-	-	-
Executive Vice President and Co-Chief Operating Officer Y.J. Mii	-	-	-	-
Senior Vice President and Deputy Co-Chief Operating Officer Chief Information Security Officer Cliff Hou (Note 4)	10,989	-	2,762	-
Senior Vice President and Deputy Co-Chief Operating Officer Kevin Zhang	-	-	-	-
Senior Vice President Lora Ho	-	-	-	-
Senior Vice President Wei-Jen Lo	(139,000)	-	(36,000)	-
Senior Vice President Chairman, TSMC Arizona Rick Cassidy	-	-	-	-
Senior Vice President Former Chief Information Security Officer J.K. Lin (Note 4)	-	-	-	-
Senior Vice President and General Counsel Corporate Governance Officer Sylvia Fang	-	-	-	-
Senior Vice President and Chief Financial Officer Spokesperson Wendell Huang	63	-	8	-
Vice President CEO, TSMC Arizona Y.L. Wang	-	-	-	-
Vice President and TSMC Distinguished Fellow Douglas Yu	-	-	-	-
Vice President and TSMC Fellow T.S. Chang	-	-	-	-

(Continued)

Title Name	2024		01/01/2025 - 02/28/2025	
	Net Change in Shares Held	Net Change in Shares Pledged	Net Change in Shares Held	Net Change in Shares Pledged
Vice President Michael Wu	-	-	-	-
Vice President Min Cao	-	-	-	-
Vice President CEO, JASM Y.H. Liaw	-	-	-	-
Vice President Simon Jang	-	-	-	-
Vice President C.S. Yoo	-	-	-	-
Vice President Jun He	-	28,000	-	-
Vice President Geoffrey Yeap	15,000	-	-	-
Vice President and Chief Information Officer Chris Horng-Dar Lin	-	-	-	-
Vice President Jonathan Lee	9,942	-	1,477	-
Vice President Arthur Chuang	-	-	-	-
Vice President and TSMC Fellow L.C. Lu	-	-	-	-
Vice President K.C. Hsu	-	-	-	-
Vice President Managing Director, ESMC Ray Chuang	-	-	-	-
Vice President Vanessa Lee (Note 5)	-	-	-	-
Vice President P.H. Chen (Note 6)	-	-	-	-

Note 1: Former Chairman Dr. Mark Liu retired after the Annual Shareholders' Meeting on June 4, 2024. The tenures of Independent Directors Ms. Kok-Choo Chen and Mr. Yancey Hai expired on June 4, 2024. Their shareholdings are no longer required to be disclosed from that date.
Note 2: Mr. Chin-Ching Liu was appointed as the representative of the National Development Fund succeeding Mr. Ming-Hsin Kung on June 6, 2024.
Note 3: Ms. Ursula M. Burns, Ms. Lynn L. Elsenhans and Mr. Chuan Lin were elected as TSMC's Independent Directors at the Annual Shareholders' Meeting on June 4, 2024. Their shareholdings were disclosed starting from that date.
Note 4: Dr. Cliff Hou was appointed as Chief Information Security Officer, effective January 1, 2025.
Note 5: Ms. Vanessa Lee was promoted to Vice President, effective August 13, 2024. Her shareholding was disclosed starting from that date.
Note 6: Mr. P.H. Chen was promoted to Vice President, effective February 12, 2025. His shareholding was disclosed starting from that date.

4.1.5 Stock Trade with Related Party: None.

4.1.6 Stock Pledge with Related Party: None.

4.1.7 Related Party Relationship among TSMC's 10 Largest Shareholders

Common Shares

As of 12/18/2024 (Note)

Name	Shares Held		Shares Held by Spouse & Minors		Shares Held in the Name of Others		Name and Relationship between TSMC's Shareholders	
	Shares	%	Shares	%	Shares	%	Name	Relationship
ADR-Taiwan Semiconductor Manufacturing Company Ltd.	5,313,843,923	20.49%	N/A	N/A	N/A	N/A	None	None
National Development Fund, Executive Yuan	1,653,709,980	6.38%	N/A	N/A	N/A	N/A	None	None
Representative: Chin-Ching Liu	-	-	-	-	-	-	None	None
Citibank (Taiwan) Ltd. in custody for Government of Singapore	682,006,536	2.63%	N/A	N/A	N/A	N/A	None	None
Citibank (Taiwan) Ltd. in custody for Norges Bank	461,734,025	1.78%	N/A	N/A	N/A	N/A	None	None
JPMorgan Chase Bank N.A., Taipei Branch in custody for Vanguard Total International Stock Index Fund, a series of Vanguard Star Funds	337,167,748	1.30%	N/A	N/A	N/A	N/A	None	None

(Continued)

Name	Shares Held		Shares Held by Spouse & Minors		Shares Held in the Name of Others		Name and Relationship between TSMC's Shareholders	
	Shares	%	Shares	%	Shares	%	Name	Relationship
JPMorgan Chase Bank N.A., Taipei Branch in custody for Vanguard Emerging Markets Stock Index Fund, a series of Vanguard International Equity Index Funds	311,573,605	1.20%	N/A	N/A	N/A	N/A	None	None
New Labor Pension Fund	302,276,555	1.17%	N/A	N/A	N/A	N/A	None	None
Yuanta/P-shares Taiwan Top 50 ETF	233,901,369	0.90%	N/A	N/A	N/A	N/A	None	None
iShares Core MSCI Emerging Markets ETF	217,727,000	0.84%	N/A	N/A	N/A	N/A	None	None
JPMorgan Chase Bank N.A. Taipei Branch in Custody for EuroPacific Growth Fund	189,344,553	0.73%	N/A	N/A	N/A	N/A	None	None

Note: Record date for the second quarter of 2024 cash dividend distribution.

4.1.8 Long-term Investment Ownership

As of 12/31/2024

Long-term Investment	Ownership by TSMC (1)		Ownership by Directors, Managers and Directly/Indirectly Owned Subsidiaries (2)		Total Ownership (1) + (2)	
	Shares	%	Shares	%	Shares	%
Equity Method:						
TSMC Partners, Ltd.	988,268,244	100%	-	-	988,268,244	100%
TSMC Global Ltd.	19,384	100%	-	-	19,384	100%
TSMC North America	11,000,000	100%	-	-	11,000,000	100%
TSMC Europe B.V.	200	100%	-	-	200	100%
TSMC Japan Limited	6,000	100%	-	-	6,000	100%
TSMC Korea Limited	80,000	100%	-	-	80,000	100%
TSMC Design Technology Japan, Inc.	15,000	100%	-	-	15,000	100%
TSMC Japan 3DIC R&D Center, Inc.	49,000	100%	-	-	49,000	100%
TSMC China Company Limited	Not Applicable (Note 1)	100%	Not Applicable (Note 1)	-	Not Applicable (Note 1)	100%
TSMC Nanjing Company Limited	Not Applicable (Note 1)	100%	Not Applicable (Note 1)	-	Not Applicable (Note 1)	100%
TSMC Arizona Corporation	17,850,000 (Note 2)	100%	-	-	17,850,000 (Note 2)	100%
Japan Advanced Semiconductor Manufacturing, Inc.	3,010,894	72.65%	-	-	3,010,894	72.65%
European Semiconductor Manufacturing Company (ESMC) GmbH	735,000 (Note 3)	70% (Note 3)	-	-	735,000 (Note 3)	70% (Note 3)
VisEra Technologies Company Ltd.	213,619,000	67.32% (Note 4)	-	-	213,619,000	67.32% (Note 4)
Systems on Silicon Manufacturing Co. Pte. Ltd.	313,603	38.79%	-	-	313,603	38.79%
Vanguard International Semiconductor Corp.	506,709,324	27.55%	299,141,075	16.27% (Note 5)	805,850,399	43.82%
Xintec Inc.	111,281,925	41.01%	-	-	111,281,925	41.01%
Global UniChip Corporation	46,687,859	34.84%	-	-	46,687,859	34.84%
VentureTech Alliance Fund II, L.P.	Not Applicable (Note 1)	98.00%	Not Applicable (Note 1)	-	Not Applicable (Note 1)	98.00%
VentureTech Alliance Fund III, L.P.	Not Applicable (Note 1)	98.00%	Not Applicable (Note 1)	-	Not Applicable (Note 1)	98.00%
Emerging Fund L.P.	Not Applicable (Note 1)	99.90%	Not Applicable (Note 1)	-	Not Applicable (Note 1)	99.90%

Note 1: Not applicable. These firms do not issue shares. TSMC's investments are measured as a percentage of ownership.
Note 2: TSMC Arizona Corporation completed a capital injection in January 2025, which included 1,350,000 shares of advance receipts. In addition, TSMC Arizona Corporation completed capital injections in February 2025. After the capital injections, TSMC holds 19,550,000 shares and 100% equity interests in TSMC Arizona Corporation.
Note 3: European Semiconductor Manufacturing Company (ESMC) GmbH ("ESMC") will have capital injection in March 2025. After the capital injection, TSMC will hold 752,500 shares and 70% equity interests in ESMC.
Note 4: As of February 2025, TSMC's ownership of VisEra is 67.32% due to VisEra's continuous execution of the Employee Stock Purchase Plan.
Note 5: TSMC's director, National Development Fund of Executive Yuan, held 16.26%, while TSMC's other directors and management held 0.01%.

4.1.9 Dividend Policy and Distribution of Earnings

Except as otherwise specified in the Articles of Incorporation or under the R.O.C. law, TSMC will not pay dividends or make other distributions to shareholders when there are no earnings. The Company's profits may be distributed by way of cash dividend, stock dividend, or a combination of cash and stock. Pursuant to the Company's Articles of Incorporation, distributions of profits shall be made preferably by way of cash dividend. In addition, the ratio for stock dividends shall not exceed 50% of the total distribution. Distribution of stock dividends is subject to approval by the R.O.C. Financial Supervisory Commission.

Pursuant to TSMC's Articles of Incorporation, the Company's Board of Directors is authorized to approve quarterly cash dividends after the close of each quarter. After the Company's Board of Directors approves quarterly cash dividends, TSMC will distribute the dividend within six months. The respective amounts and payment dates of 2024 quarterly cash dividends are demonstrated in the table below. TSMC intends to maintain a sustainable and steadily increasing cash dividend on both an annual and quarterly basis.

2024 Quarterly Earnings Distribution

Unit: NT$

Period	Approval Date	Payment Date	Cash Dividend Per Share	Total Earnings Distribution Amount
First quarter of 2024	05/10/2024	10/09/2024	NT$4.00013820 (Note 1)	103,734,516,968
Second quarter of 2024	08/13/2024	01/09/2025	NT$3.99963706 (Note 1)	103,721,520,968
Third quarter of 2024	11/12/2024	04/10/2025	NT$4.50002042 (Note 1)	116,697,299,589
Fourth quarter of 2024	02/12/2025	07/10/2025	NT$4.50 (Note 2)	116,697,299,589

Note 1: The cash dividend per share was adjusted, as authorized by the Board of Directors, based on the actual number of common shares outstanding as of the record date for such dividend payment.
Note 2: The actual cash dividend per share shall be subject to adjustment based on the actual number of common shares outstanding as of the record date for such dividend payment.

4.1.10 Compensation to Directors and Profit Sharing to Employees

Based on TSMC's Articles of Incorporation, before paying dividends or bonuses to shareholders, TSMC shall set aside not more than 0.3% of its annual profit to directors as compensation and not less than 1% to employees as profit sharing.

As resolved by TSMC's Board of Directors on February 12, 2025, a profit sharing to employees was expensed based on a certain percentage of 2024 profit; compensation to directors was expensed based on the estimated amount of payment. If the actual amounts subsequently paid differ from the above estimated amounts, the differences will be recorded in the year paid as a change in accounting estimate.

2024 Directors' Compensation and Employees' Profit Sharing

The 2024 directors' compensation is NT$358,989 thousand. The directors' compensation is to be distributed in cash.

The 2024 employees' profit sharing of NT$70,296,283 thousand was approved by the Board of Directors in its meeting for the first quarter of 2025. The employees' profit sharing is to be distributed in cash.

Note: NT$70,296,283 thousand business performance bonus was already distributed following each quarter of 2024. The aforementioned employees' profit sharing will be distributed in July, 2025.

2023 Directors' Compensation and Employees' Profit Sharing

The 2023 directors' compensation was NT$551,955 thousand, and the employees' profit sharing was NT$50,090,533 thousand, both distributed in cash. The aforementioned directors' compensation and employees' profit sharing were expensed under the Company's 2023 statement of comprehensive income, with no difference in the actual disbursed amounts.

4.1.11 Impact to 2024 Business Performance and EPS of Stock Dividend Distribution: Not applicable.

4.1.12 Buyback of Common Shares

To offset dilution from the increase of outstanding shares due to the issuances of employee restricted stock awards (RSAs), the Company's Board of Directors approved a share buyback program on June 5, 2024 to repurchase 3,249,000 common shares on the Taiwan Stock Exchange. The repurchased shares were subsequently cancelled. The details of the Company's share buyback program were as follows.

(1) Completed Share Buyback Program

In 2024 and as of the date of this Annual Report

Tranche of Buyback	6th Buyback Program
Purpose of the Share Buyback	For the shareholders' interests
Scheduled Buyback Period	06/06/2024 - 08/05/2024
Scheduled Buyback Price Range	NT$598 to NT$1,281 per share, while the buyback will still be carried out if the stock price falls below the aforementioned range
Type and Number of Shares Bought Back	Common shares: 3,249,000 shares
Total Monetary Amount of Shares Bought Back	NT$3,089,176,471
Number of Shares Bought Back as a Percentage of the Approved Number of Shares to be Bought Back (%)	100%
Number of shares Cancelled and/or Transferred	3,249,000 shares
Cumulative Number of the Company's Treasury Shares Held	0 share
Cumulative Number of the Company's Treasury Shares as a Percentage of the Total Number of Shares Issued (%)	0%

(2) Uncompleted Share Buyback Program: None.

4.2 Issuance of Corporate Bonds

4.2.1 Corporate Bonds

NTD Corporate Bonds

Issuance		Domestic Unsecured Bond (109-1)	Domestic Unsecured Bond (109-2)	Domestic Unsecured Bond (109-3)	Domestic Unsecured Bond (109-4)	Domestic Unsecured Bond (109-5)	Domestic Unsecured Bond (109-6, Green Bond)
Issue Date		03/23/2020	04/15/2020	05/29/2020	07/14/2020	09/03/2020	12/02/2020
Denomination		NT$10,000,000					
Offering Price		Par					
Total Amount		NT$24,000,000,000	NT$21,600,000,000	NT$14,400,000,000	NT$13,900,000,000	NT$15,600,000,000	NT$12,000,000,000
Coupon (Per Annum)		Tranche A: 0.58% Tranche B: 0.62% Tranche C: 0.64%	Tranche A: 0.52% Tranche B: 0.58% Tranche C: 0.60%	Tranche A: 0.55% Tranche B: 0.60% Tranche C: 0.64%	Tranche A: 0.58% Tranche B: 0.65% Tranche C: 0.67%	Tranche A: 0.50% Tranche B: 0.58% Tranche C: 0.60%	Tranche A: 0.40% Tranche B: 0.44% Tranche C: 0.48%
Tenure and Maturity Date		Tranche A: 5 years Maturity: 03/23/2025 Tranche B: 7 years Maturity: 03/23/2027 Tranche C: 10 years Maturity: 03/23/2030	Tranche A: 5 years Maturity: 04/15/2025 Tranche B: 7 years Maturity: 04/15/2027 Tranche C: 10 years Maturity: 04/15/2030	Tranche A: 5 years Maturity: 05/29/2025 Tranche B: 7 years Maturity: 05/29/2027 Tranche C: 10 years Maturity: 05/29/2030	Tranche A: 5 years Maturity: 07/14/2025 Tranche B: 7 years Maturity: 07/14/2027 Tranche C: 10 years Maturity: 07/14/2030	Tranche A: 5 years Maturity: 09/03/2025 Tranche B: 7 years Maturity: 09/03/2027 Tranche C: 10 years Maturity: 09/03/2030	Tranche A: 5 years Maturity: 12/02/2025 Tranche B: 7 years Maturity: 12/02/2027 Tranche C: 10 years Maturity: 12/02/2030
Repayment		Bullet			Two equal installments in last two years		
Outstanding		NT$24,000,000,000	NT$21,600,000,000	NT$14,400,000,000	NT$11,050,000,000	NT$13,200,000,000	NT$11,200,000,000
Credit Rating		Not Applicable					
Underwriter (Lead Underwriter)		Yuanta Securities Co., Ltd.	MasterLink Securities Co., Ltd.	Hua Nan Securities Co., Ltd.	Capital Securities Co., Ltd.	KGI Securities Co., Ltd.	Capital Securities Co., Ltd.
Trustee		Taipei Fubon Commercial Bank Co., Ltd.					
Guarantor		None					
Legal Counsel		True Honesty International Law Offices					
Auditor		Deloitte & Touche					
Redemption or Early Repayment Clause		None					
Covenants		None					
Other Rights of Bondholders	Conversion Right	None					
	Amount of Converted or Exchanged Common Shares, ADRs or Other Securities	Not Applicable					
Dilution Effect and Other Adverse Effects on Existing Shareholders		None					
Custodian		None					

As of 02/28/2025

	Domestic Unsecured Bond (109-7)	Domestic Unsecured Bond (110-1)	Domestic Unsecured Bond (110-2)	Domestic Unsecured Bond (110-3)	Domestic Unsecured Bond (110-4)	Domestic Unsecured Bond (110-6)	Domestic Unsecured Bond (110-7)
	12/29/2020	03/30/2021	05/03/2021	06/25/2021	08/19/2021	10/05/2021	12/09/2021
	NT$18,500,000,000	NT$21,100,000,000	NT$19,200,000,000	NT$19,700,000,000	NT$21,600,000,000	NT$16,300,000,000	NT$16,700,000,000
	Tranche A: 0.36% Tranche B: 0.41% Tranche C: 0.45%	Tranche A: 0.50% Tranche B: 0.55% Tranche C: 0.60%	Tranche A: 0.50% Tranche B: 0.58% Tranche C: 0.65%	Tranche A: 0.52% Tranche B: 0.58% Tranche C: 0.65%	Tranche A: 0.485% Tranche B: 0.50% Tranche C: 0.55% Tranche D: 0.62%	Tranche A: 0.535% Tranche B: 0.54% Tranche C: 0.60% Tranche D: 0.62%	Tranche A: 0.65% Tranche B: 0.675% Tranche C: 0.72%
	Tranche A: 5 years Maturity: 12/29/2025 Tranche B: 7 years Maturity: 12/29/2027 Tranche C: 10 years Maturity: 12/29/2030	Tranche A: 5 years Maturity: 03/30/2026 Tranche B: 7 years Maturity: 03/30/2028 Tranche C: 10 years Maturity: 03/30/2031	Tranche A: 5 years Maturity: 05/03/2026 Tranche B: 7 years Maturity: 05/03/2028 Tranche C: 10 years Maturity: 05/03/2031	Tranche A: 5 years Maturity: 06/25/2026 Tranche B: 7 years Maturity: 06/25/2028 Tranche C: 10 years Maturity: 06/25/2031	Tranche A: 4 years Maturity: 08/19/2025 Tranche B: 5 years Maturity: 08/19/2026 Tranche C: 7 years Maturity: 08/19/2028 Tranche D: 10 years Maturity: 08/19/2031	Tranche A: 4.5 years Maturity: 04/05/2026 Tranche B: 5 years Maturity: 10/05/2026 Tranche C: 7 years Maturity: 10/05/2028 Tranche D: 10 years Maturity: 10/05/2031	Tranche A: 5 years Maturity: 12/09/2026 Tranche B: 5.5 years Maturity: 06/09/2027 Tranche C: 7 years Maturity: 12/09/2028
		Bullet					
	NT$17,550,000,000	NT$21,100,000,000	NT$19,200,000,000	NT$19,700,000,000	NT$21,600,000,000	NT$16,300,000,000	NT$16,700,000,000
	KGI Securities Co., Ltd.	Capital Securities Co., Ltd.	SinoPac Securities Co., Ltd.	Yuanta Securities Co., Ltd.	KGI Securities Co., Ltd.	Capital Securities Co., Ltd.	Capital Securities Co., Ltd.

(Continued)

Issuance		Domestic Unsecured Bond (111-1, Green Bond)	Domestic Unsecured Bond (111-2)	Domestic Unsecured Bond (111-3, Green Bond)	Domestic Unsecured Bond (111-4, Green Bond)	Domestic Unsecured Bond (111-5)	Domestic Unsecured Bond (111-6, Green Bond)
Issue Date		01/12/2022	03/29/2022	05/20/2022	07/27/2022	08/25/2022	10/20/2022
Denomination		NT$10,000,000					
Offering Price		Par					
Total Amount		NT$5,400,000,000	NT$14,200,000,000	NT$6,100,000,000	NT$13,900,000,000	NT$15,600,000,000	NT$10,200,000,000
Coupon (Per Annum)		Tranche A: 0.63% Tranche B: 0.72%	Tranche A: 0.84% Tranche B: 0.85% Tranche C: 0.90%	1.50%	Tranche A: 1.60% Tranche B: 1.70% Tranche C: 1.75% Tranche D: 1.95%	Tranche A: 1.65% Tranche B: 1.65% Tranche C: 1.65% Tranche D: 1.82%	Tranche A: 1.75% Tranche B: 1.80% Tranche C: 2.00%
Tenure and Maturity Date		Tranche A: 5 years Maturity: 01/12/2027 Tranche B: 7 years Maturity: 01/12/2029	Tranche A: 4.5 years Maturity: 09/29/2026 Tranche B: 5 years Maturity: 03/29/2027 Tranche C: 7 years Maturity: 03/29/2029	5 years Maturity: 05/20/2027	Tranche A: 4 years Maturity: 07/27/2026 Tranche B: 5 years Maturity: 07/27/2027 Tranche C: 7 years Maturity: 07/27/2029 Tranche D: 10 years Maturity: 07/27/2032	Tranche A: 4 years 10 months Maturity: 06/25/2027 Tranche B: 5 years Maturity: 08/25/2027 Tranche C: 7 years Maturity: 08/25/2029 Tranche D: 10 years Maturity: 08/25/2032	Tranche A: 5 years Maturity: 10/20/2027 Tranche B: 7 years Maturity: 10/20/2029 Tranche C: 10 years Maturity: 10/20/2032
Repayment		Bullet					
Outstanding		NT$5,400,000,000	NT$14,200,000,000	NT$6,100,000,000	NT$13,900,000,000	NT$15,600,000,000	NT$10,200,000,000
Credit Rating		Not Applicable					
Underwriter (Lead Underwriter)		Yuanta Securities Co., Ltd.	Capital Securities Co., Ltd.	Capital Securities Co., Ltd.	SinoPac Securities Co., Ltd.	Capital Securities Co., Ltd.	Yuanta Securities Co., Ltd.
Trustee		Taipei Fubon Commercial Bank Co., Ltd.					
Guarantor		None					
Legal Counsel		True Honesty International Law Offices					
Auditor		Deloitte & Touche					
Redemption or Early Repayment Clause		None					
Covenants		None					
Other Rights of Bondholders	Conversion Right	None					
	Amount of Converted or Exchanged Common Shares, ADRs or Other Securities	Not Applicable					
Dilution Effect and Other Adverse Effects on Existing Shareholders		None					
Custodian		None					

	Domestic Unsecured Bond (112-1, Green Bond)	Domestic Unsecured Bond (112-2, Green Bond)	Domestic Unsecured Bond (112-3)	Domestic Unsecured Bond (112-4)	Domestic Unsecured Bond (112-5)	Domestic Unsecured Bond (113-1, Green Bond)	Domestic Unsecured Bond (113-2, Green Bond)
	03/28/2023	05/03/2023	06/01/2023	08/16/2023	10/16/2023	03/15/2024	05/17/2024
	NT$19,300,000,000	NT$20,700,000,000	NT$20,000,000,000	NT$15,900,000,000	NT$9,800,000,000	NT$22,800,000,000	NT$11,500,000,000
	Tranche A: 1.54% Tranche B: 1.60% Tranche C: 1.78%	Tranche A: 1.60% Tranche B: 1.65% Tranche C: 1.82%	Tranche A: 1.60% Tranche B: 1.65% Tranche C: 1.80%	Tranche A: 1.60% Tranche B: 1.65% Tranche C: 1.76%	Tranche A: 1.62% Tranche B: 1.76%	Tranche A: 1.64% Tranche B: 1.76%	Tranche A: 1.98% Tranche B: 2.10%
	Tranche A: 5 years Maturity: 03/28/2028 Tranche B: 7 years Maturity: 03/28/2030 Tranche C: 10 years Maturity: 03/28/2033	Tranche A: 5 years Maturity: 05/03/2028 Tranche B: 7 years Maturity: 05/03/2030 Tranche C: 10 years Maturity: 05/03/2033	Tranche A: 5 years Maturity: 06/01/2028 Tranche B: 7 years Maturity: 06/01/2030 Tranche C: 10 years Maturity: 06/01/2033	Tranche A: 5 years Maturity: 08/16/2028 Tranche B: 7 years Maturity: 08/16/2030 Tranche C: 10 years Maturity: 08/16/2033	Tranche A: 5 years Maturity: 10/16/2028 Tranche B: 10 years Maturity: 10/16/2033	Tranche A: 5 years Maturity: 03/15/2029 Tranche B: 10 years Maturity: 03/15/2034	Tranche A: 5 years Maturity: 05/17/2029 Tranche B: 10 years Maturity: 05/17/2034
	NT$19,300,000,000	NT$20,700,000,000	NT$20,000,000,000	NT$15,900,000,000	NT$9,800,000,000	NT$22,800,000,000	NT$11,500,000,000
	Yuanta Securities Co., Ltd.	Fubon Securities Co., Ltd.	Cathay United Bank Co., Ltd.	SinoPac Securities Corporation	SinoPac Securities Corporation	Yuanta Securities Co., Ltd.	KGI Securities Co., Ltd.

Onshore USD Corporate Bonds

As of 02/28/2025

Issuance		US-dollar Domestic Unsecured Bond (109-1)	US-dollar Domestic Unsecured Bond (110-5)
Issue Date		09/22/2020	09/23/2021
Denomination		US$1,000,000	
Listing		Taipei Exchange	
Offering Price		Par	
Total Amount		US$1,000,000,000	US$1,000,000,000
Coupon (Per Annum)		2.70%	3.10%
Tenure and Maturity Date		40 years Maturity: 09/22/2060	30 years Maturity: 09/23/2051
Repayment		Bullet	
Outstanding		US$1,000,000,000	US$1,000,000,000
Credit Rating		Not Applicable	
Underwriter		Goldman Sachs (Asia) L.L.C., Taipei Branch KGI Securities Co., Ltd. (lead underwriter)	
Trustee		Mega International Commercial Bank Co., Ltd.	
Guarantor		None	
Legal Counsel		True Honesty International Law Offices	
Auditor		Deloitte & Touche	
Redemption or Early Repayment Clause		Callable on the 5th anniversary of the issue date and every anniversary thereafter	
Covenants		None	
Other Rights of Bondholders	**Conversion Right**	None	
	Amount of Converted or Exchanged Common Shares, ADRs or Other Securities	Not Applicable	
Dilution Effect and Other Adverse Effects on Existing Shareholders		None	
Custodian		None	

Offshore USD Corporate Bonds

As of 02/28/2025

Issuer		TSMC Global Ltd. (Note 1)	TSMC Global Ltd. (Note 1)	TSMC Arizona Corporation (Note 1)	TSMC Arizona Corporation (Note 1)	TSMC Global Ltd. (Note 1)
Issuance		Senior Unsecured Notes (Note 2)	Senior Unsecured Notes (Note 2)	Senior Unsecured Notes (Note 2)	Senior Unsecured Notes (Note 2)	Senior Unsecured Notes (Note 2)
Issue Date		09/28/2020	04/23/2021	10/25/2021	04/22/2022	07/22/2022
Denomination		US$200,000 and integral multiples of US$1,000 in excess thereof				
Listing		Singapore Exchange				
Offering Price		2025 Notes: 99.907% 2027 Notes: 99.603% 2030 Notes: 99.083%	2026 Notes: 99.759% 2028 Notes: 99.751% 2031 Notes: 99.831%	2026 Notes: 99.976% 2031 Notes: 99.561% 2041 Notes: 98.898% 2051 Notes: 98.658%	2027 Notes: 99.829% 2029 Notes: 99.843% 2032 Notes: 99.742% 2052 Notes: 99.771%	2027 Notes: 99.951% 2032 Notes: 99.124%
Total Amount		US$3,000,000,000	US$3,500,000,000	US$4,500,000,000	US$3,500,000,000	US$1,000,000,000
Coupon (Per Annum)		2025 Notes: 0.75% 2027 Notes: 1.00% 2030 Notes: 1.375%	2026 Notes: 1.25% 2028 Notes: 1.75% 2031 Notes: 2.25%	2026 Notes: 1.75% 2031 Notes: 2.50% 2041 Notes: 3.125% 2051 Notes: 3.25%	2027 Notes: 3.875% 2029 Notes: 4.125% 2032 Notes: 4.250% 2052 Notes: 4.500%	2027 Notes: 4.375% 2032 Notes: 4.625%
Tenure and Maturity Date		2025 Notes: 5 years Maturity: 09/28/2025 2027 Notes: 7 years Maturity: 09/28/2027 2030 Notes: 10 years Maturity: 09/28/2030	2026 Notes: 5 years Maturity: 04/23/2026 2028 Notes: 7 years Maturity: 04/23/2028 2031 Notes: 10 years Maturity: 04/23/2031	2026 Notes: 5 years Maturity: 10/25/2026 2031 Notes: 10 years Maturity: 10/25/2031 2041 Notes: 20 years Maturity: 10/25/2041 2051 Notes: 30 years Maturity: 10/25/2051	2027 Notes: 5 years Maturity: 04/22/2027 2029 Notes: 7 years Maturity: 04/22/2029 2032 Notes: 10 years Maturity: 04/22/2032 2052 Notes: 30 years Maturity: 04/22/2052	2027 Notes: 5 years Maturity: 07/22/2027 2032 Notes: 10 years Maturity: 07/22/2032
Repayment		Bullet				
Outstanding		US$3,000,000,000	US$3,500,000,000	US$4,500,000,000	US$3,500,000,000	US$1,000,000,000
Credit Rating		Aa3 (Moody's Investors Service, 09/21/2020) AA- (Standard & Poor's Rating Services, 09/21/2020)	Aa3 (Moody's Investors Service, 04/19/2021) AA- (Standard & Poor's Rating Services, 04/18/2021)	Aa3 (Moody's Investors Service, 10/19/2021) AA- (Standard & Poor's Rating Services, 10/18/2021)	Aa3 (Moody's Investors Service, 04/19/2022) AA- (Standard & Poor's Rating Services, 04/18/2022)	Aa3 (Moody's Investors Service, 07/19/2022) AA- (Standard & Poor's Rating Services, 07/18/2022)
Underwriter		Goldman Sachs International as lead underwriter		Goldman Sachs & Co. LLC as lead underwriter		Goldman Sachs International as lead underwriter
Trustee		Citicorp International Limited		Citibank, N.A.		Citicorp International Limited
Guarantor		TSMC				
Legal Counsel		Sullivan & Cromwell (Hong Kong) LLP Harney Westwood & Riegels Lee and Li, Attorneys-at-Law		Sullivan & Cromwell (Hong Kong) LLP Fennemore Craig, P.C. Lee and Li, Attorneys-at-Law		Sullivan & Cromwell (Hong Kong) LLP Harney Westwood & Riegels Lee and Li, Attorneys-at-Law
Auditor		Deloitte & Touche				
Redemption or Early Repayment Clause		Issuer may, at its option, redeem the Notes, at any time, in whole or in part at the relevant redemption price according to relevant agreements				
Covenants		None				
Other Rights of Bondholders	**Conversion Right**	None				
	Amount of Converted or Exchanged Common Shares, ADRs or Other Securities	Not Applicable				
Dilution Effect and Other Adverse Effects on Existing Shareholders		None				
Custodian		None				

Note 1: A wholly-owned subsidiary of TSMC.
Note 2: Unconditionally and irrevocably guaranteed by TSMC.

4.2.2 Convertible Bond: None.

4.2.3 Exchangeable Bond: None.

4.2.4 Shelf Registration in Taiwan: None.

4.2.5 Bond with Warrants: None.

4.3 Preferred Shares

4.3.1 Preferred Shares: None.

4.3.2 Preferred Shares with Warrants: None.

4.4 Issuance of American Depositary Shares

Issue Date	10/08/1997	11/20/1998	01/12/1999 - 01/14/1999	07/15/1999	08/23/1999 - 09/09/1999	02/22/2000 - 03/08/2000	04/17/2000	06/07/2000 - 06/15/2000
Total Amount (US$ million)	595	185	36	296	159	379	225	1,168
Offering Price Per ADS (US$)	24.78	15.26	17.75	24.516	28.964	57.79	56.16	35.75
Units Issued	24,000,000	12,094,000	2,000,000	12,094,000	5,486,000	6,560,000	4,000,000	32,667,800
Common Shares Represented	Each unit of ADS represents five TSMC Common Shares.							
Underlying Securities	TSMC Common Shares from Selling Shareholders							Cash Offering and TSMC Common Shares from Selling Shareholders
Apportionment of Expenses for Issuance and Maintenance	(Note 3)							(Note 4)
Issuance and Listing	NYSE							
Rights and Obligations of ADS Holders	Same as those of Common Share Holders							
Trustee	Not Applicable							
Depositary Bank	Citibank, N.A. – New York							
Custodian Bank (Note 1)	Citibank, N.A. – Taipei Branch							
ADSs Outstanding (Note 2)	As of February 28, 2025, total number of outstanding ADSs was 1,062,763,201							
Terms and Conditions in the Deposit Agreement and Custody Agreement	See Deposit Agreement and Custody Agreement for Details							

Closing Price Per ADS (US$; source: Bloomberg)			
	01/01/2024 - 12/31/2024	High	207.36
		Low	99.13
		Average	160.41
	01/01/2025 - 02/28/2025	High	224.62
		Low	180.53
		Average	204.95

Note 1: Citibank, N.A., Taipei Branch changed its name to "Citibank Taiwan Limited" in 2009.
Note 2: TSMC has in aggregate issued 813,544,500 ADSs since 1997, which, if taking into consideration stock dividends distributed over the period, would amount to 1,147,835,205 ADSs. Stock dividends distributed in 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008 and 2009 were 45%, 23%, 28%, 40%, 10%, 8%, 14.08668%, 4.99971%, 2.99903%, 0.49991%, 0.50417% and 0.49998%, respectively. As of February 28, 2025, total number of outstanding ADSs was 1,062,763,201 after 85,072,004 ADSs were redeemed.
Note 3: All fees and expenses related to issuance of ADSs were paid by the selling shareholders, while maintenance expenses were borne by TSMC.
Note 4: All fees and expenses related to issuance of ADSs were paid proportionately by TSMC and the selling shareholders, while maintenance expenses were borne by TSMC.

	05/17/2001 - 06/11/2001	11/27/2001	02/07/2002 - 02/08/2002	11/21/2002 - 12/19/2002	07/14/2003 - 07/21/2003	11/14/2003	08/10/2005 - 09/08/2005	05/23/2007
	539	321	1,002	160	909	1,077	1,402	2,563
	20.63	16.03	16.75	8.73	10.40	10.77	8.60	10.68
	26,110,000	20,000,000	59,800,000	18,348,000	87,357,200	100,000,000	163,027,500	240,000,000
	TSMC Common Shares from Selling Shareholders							
	(Note 3)							

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4.5 Status of Employee Stock Option Plan

4.5.1 Issuance of Employee Stock Options: None.

4.5.2 Employee Stock Options Granted to Management Team and to Top 10 Employees: None.

4.6 Status of Employee Restricted Stock

4.6.1 Status of Employee Restricted Stock

As of 03/01/2025 (Note)

Type of Employee Restricted Stock	Employee Restricted Stock Awards for Year 2021
Effective Registration Date and Total Number of Shares	08/06/2021 /2,600,000 shares
Issue Date	03/01/2022
Number of Restricted Employee Shares Issued	1,387,000 shares
Number of Restricted Employee Shares Still Available for Issuance	0 share
Issued Price	None
Ratio of the Number of Restricted Employee Shares Issued to the Total Number of Issued Shares	0.00535%
Vesting Conditions of Restricted Employee Shares	1. The RSAs granted to an executive can only be vested if (a) the executive remains employed by the Company on the last date of each vesting period; (b) during the vesting period, the executive may not breach any agreement with the Company or violate the Company's work rules; and (c) certain executive performance metrics (a year-end performance rating of at least "S" (Note) or above for the year immediately preceding the expiration of each vesting period) and the Company's business performance metrics are met. (Note: "S" stands for "Successful") 2. The maximum percentage of granted RSAs that may be vested each year shall be as follows: one-year anniversary of the grant: 50%; two-year anniversary of the grant: 25%; and three-year anniversary of the grant: 25%; provided that the actual percentage and number of the RSAs to be vested in each year will be calculated based on the achievement of the Company's business performance metrics, as detailed in the following point. 3. The maximum number of RSAs that may be vested in each year will be set as 110%, among which 100% will be subject to a calculation based on the Company's relative TSR (Note) achievement (see table below) to determine the number of RSAs to be vested; this number will be further subject to a modifier to increase or decrease up to 10% based on the Compensation Committee's evaluation of the Company's ESG achievements. The number of shares so calculated should be rounded down to the nearest integral.

The Company's TSR Relative to the TSR of S&P 500 IT Index	Ratio of Shares to be Vested
Above the Index by X percentage points	50% + X * 2.5%, with the maximum of 100%
Equal to the Index	50%
Below the Index by X percentage points	50% - X * 2.5%, with the minimum of 0%

Note: TSR: Total Shareholder Return (including capital gains and dividends)

Restriction on Rights in the Restricted Employee Shares	1. Upon the grant of the RSAs, the RSAs shall be deposited in a trust/custody account. Before the vesting conditions are fulfilled, the executives cannot request the trustee/custodian to return to them the RSAs for any reasons or by any means. 2. During each vesting period, no executives granted RSAs may sell, pledge, transfer, give to another person, create any encumbrance on, or otherwise dispose of, any shares under the unvested RSAs. 3. Subject to the restrictions mentioned above, the rights of the executives with regard to the unvested RSAs granted under these Rules before the fulfillment of the vesting conditions, including but not limited to the entitlement to any distribution regarding dividends, bonuses and capital reserve, and the subscription right of the new shares issued for any capital increase, are the same as those of holders of common shares of the Company. The relevant matters shall be handled in accordance with the RSA trust/custody agreement. 4. Before the vesting conditions are fulfilled, the attendance, proposal rights, speech rights, voting rights and any other shareholder rights shall be exercised by the engaged trustee/custodian on the executives' behalf. 5. During each vesting period, if the Company conducts a capital reduction for cash return, capital reduction for loss offset, or other non-statutory capital reduction, the unvested RSAs shall be cancelled proportionally by the ratio of such capital reduction. If the Company conducts a capital reduction for cash return, the returned cash shall be deposited in a trust/custody account and shall not be delivered to the executives until the vesting conditions are fulfilled; otherwise, the cash will be returned to the Company.

(Continued)

Custody of the Restricted Employee Shares	1. Upon the grant of the RSAs, the RSAs shall be deposited in a trust/custody account. Before the vesting conditions are fulfilled, the executives cannot request the trustee/custodian to return to them the RSAs for any reasons or by any means. 2. During the period when the granted RSAs are deposited in a trust/custody account, each executive must enter into an agreement authorizing the Company to, among others, negotiate, execute, modify, extend, rescind, and terminate the trust/custody agreement with the trustee/custodian, and give instructions to deliver, use, and dispose of any of the properties under the trust/custody, on their behalf, with full power and authority.
Treatment of the Restricted Shares for Which the Grantee Fails to Meet the Vesting Conditions after Receiving or Subscribing to the Shares	1. The Company will reclaim the granted RSAs and cancel the same at no extra cost to the Company, where an executive fails to meet the vesting conditions. 2. Voluntary Separation, separation with a severance, or involuntary discharge: Any unvested RSAs will be forfeited on the effective date of separation due to a voluntary separation, separation with a severance, or involuntary discharge of such executives. The Company will reclaim the RSAs granted to them and cancel the same at no extra cost to the Company. 3. Leave Without Pay: All the rights and obligations in connection with the unvested RSAs will not be affected as a result of executives taking extended leave without pay. However, the actual number of shares that may be vested will not only be calculated according to the vesting conditions but also be prorated based on the number of months of their service during the year prior to the applicable vesting day. If such executives are on leave without pay on any vesting day, it shall be deemed that they fail to meet the vesting conditions, and the Company will reclaim the RSAs granted to them and cancel the same at no extra cost to the Company. 4. Retirement: All the rights and obligations in connection with the unvested RSAs will not be affected as a result of an employee's retirement. However, the actual number of shares that may be vested shall be calculated according to the vesting condition, and the performance rating granted to them shall be deemed "5". 5. Employment Termination Due to Death or Physical Disability Caused by Occupational Accidents: The unvested RSAs shall be deemed immediately vested in the case of death or physical disability due to an occupational accident, where the RSAs vested shall be based on the assumption that the Company's TSR equals to the TSR of S&P 500 IT Index and there is no further adjustment for the Company's ESG achievements. In the case of death, the respective heir(s) may apply for entitlement to those inheritable shares after completing all necessary legal procedures and providing relevant supporting documents. In the case of physical disability caused by occupational injury, the vested RSAs will be received by such executives. 6. Position Transfer: Where any executives apply for transferring to any of the Company's subsidiaries, affiliates, or other companies, the measures to be taken with respect to their unvested RSAs will be the same as those specified in "Voluntary Separation". Where any executives are assigned by the Company to a position in any of the Company's subsidiaries, affiliates, or other companies, all the rights and obligations in connection with the unvested RSAs will not be affected as a result. However, subject to the vesting conditions, such executives shall continue working in the assigned subsidiaries, affiliates, or other companies on the vesting dates. Otherwise, they will be considered to fail to meet the vesting conditions, and the Company will reclaim the RSAs granted to them and cancel the same at no extra cost to the Company. With respect to the evaluation of the achievement of individual performance goals, Chairman and Chief Executive Officer will determine whether the vesting conditions are met by reviewing the evaluation of the executives' performance provided by the assigned subsidiaries, affiliates, or other companies. 7. Where any executives declare to voluntarily relinquish the granted RSAs with a written statement, the Company will reclaim the RSAs granted to them and cancel the same at no extra cost to the Company. 8. Where any executives, after being granted the RSAs, breach any agreement with the Company employment agreement or violate the Company's work rules, the Company will reclaim the RSAs granted to them and cancel the same at no extra cost to the Company. 9. Where any executives terminate or revoke their authorization given to the Company regarding the executive's RSA trust/custody account, the Company will reclaim their unvested RSAs and cancel the same at no extra cost to the Company.
Number of Restricted Employee Shares That Have Been Retired or Bought Back	783,557 shares
Number of Restricted Employee Shares That Have Vested	603,443 shares
Number of Unvested Restricted Employee Shares	0 share
The Ratio of Number of Unvested Restricted Employee Share to the Total Number of Issued Shares (%)	0%
The Effect on Shareholders' Equity	The potential dilution of the Company's EPS is minimal; therefore, there is no material impact on shareholders' interest.

Note: The printed date of this Annual Report.

Type of Employee Restricted Stock	Employee Restricted Stock Awards for Year 2022
Effective Registration Date and Total Number of Shares	07/25/2022 /3,065,000 shares
Issue Date	03/01/2023
Number of Restricted Employee Shares Issued	2,110,000 shares
Number of Restricted Employee Shares Still Available for Issuance	0 share
Issued Price	None
Ratio of the Number of Restricted Employee Shares Issued to the Total Number of Issued Shares	0.00814%
Vesting Conditions of Restricted Employee Shares	1. The RSAs granted to an employee can only be vested if (a) the employee remains employed by the Company or the Company's subsidiaries on the last date of each vesting period; (b) during the vesting period, the employee may not breach any agreement with the Company or the Company's subsidiaries or violate the Company's or the Company's subsidiaries' work rules; and (c) certain employee performance metrics (a year-end performance rating of at least "S" (Note) or above for the year immediately preceding the expiration of each vesting period) and the Company's business performance metrics are met. (Note: "S" stands for "Successful") 2. The maximum percentage of granted RSAs that may be vested each year shall be as follows: one-year anniversary of the grant: 50%; two-year anniversary of the grant: 25%; and three-year anniversary of the grant: 25%; provided that the actual percentage and number of the RSAs to be vested in each year will be calculated based on the achievement of the Company's business performance metrics, as detailed in the following points. 3. For eligible executive officers of the Company: The maximum number of RSAs that may be vested in each year will be set as 110%, among which 100% will be subject to a calculation based on the Company's relative TSR (Note) achievement (see table below) to determine the number of RSAs to be vested; this number will be further subject to a modifier to increase or decrease up to 10% based on the Compensation Committee's evaluation of the Company's ESG achievements. The number of shares so calculated should be rounded down to the nearest integral. 4. For eligible employees who are not executive officers of the Company and the Company's subsidiaries: The number of RSAs to be vested in each year will be calculated in accordance with the below table based on the Company's audited consolidated financial statements for the year prior to the vesting year. The number of shares so calculated should be rounded down to the nearest integral.

The Company's TSR Relative to the TSR of S&P 500 IT Index	Ratio of Shares to Be Vested
Above the Index by X percentage points	50% + X * 2.5%, with the maximum of 100%
Equal to the Index	50%
Below the Index by X percentage points	50% - X * 2.5%, with the minimum of 0%

Note: TSR: Total Shareholder Return (including capital gains and dividends)

	Threshold	Target	Weighting	Ratio of Shares to Be Vested
Revenue Growth	10%	15%	One-third	• < Threshold: 0% • = Threshold: 50% • ≧ Target: 100% • Between Threshold and Target: as calculated by interpolation method
Gross Margin	50%	53%	One-third	
Return on Equity (ROE)	20%	25%	One-third	

Restriction on Rights in the Restricted Employee Shares	1. Upon the grant of the RSAs, the RSAs shall be deposited in a trust/custody account. Before the vesting conditions are fulfilled, the employees cannot request the trustee/custodian to return to them the RSAs for any reasons or by any means. 2. During each vesting period, no employees granted RSAs may sell, pledge, transfer, give to another person, create any encumbrance on, or otherwise dispose of, any shares under the unvested RSAs. 3. Subject to the restrictions mentioned above, the rights of the employees with regard to the unvested RSAs granted under these Rules before the fulfillment of the vesting conditions, including but not limited to the entitlement to any distribution regarding dividends, bonuses and capital reserve, and the subscription right of the new shares issued for any capital increase, are the same as those of holders of common shares of the Company. The relevant matters shall be handled in accordance with the RSA trust/custody agreement. 4. Before the vesting conditions are fulfilled, the attendance, proposal rights, speech rights, voting rights and any other shareholder rights shall be exercised by the engaged trustee/custodian on the employees' behalf. 5. During each vesting period, if the Company conducts a capital reduction for cash return, capital reduction for loss offset, or other non-statutory capital reduction, the unvested RSAs shall be cancelled proportionally by the ratio of such capital reduction. If the Company conducts a capital reduction for cash return, the returned cash shall be deposited in a trust/custody account and shall not be delivered to the employees until the vesting conditions are fulfilled; otherwise, the cash will be returned to the Company.

(Continued)

Custody of the Restricted Employee Shares	1. Upon the grant of the RSAs, the RSAs shall be deposited in a trust/custody account. Before the vesting conditions are fulfilled, the employees cannot request the trustee/custodian to return to them the RSAs for any reasons or by any means. 2. During the period when the granted RSAs are deposited in a trust/custody account, each executive must enter into an agreement authorizing the Company to, among others, negotiate, execute, modify, extend, rescind, and terminate the trust/custody agreement with the trustee/custodian, and give instructions to deliver, use, and dispose of any of the properties under the trust/custody, on their behalf, with full power and authority.
Treatment of the Restricted Shares for Which the Grantee Fails to Meet the Vesting Conditions after Receiving or Subscribing to the Shares	1. The Company will reclaim the granted RSAs and cancel the same at no extra cost to the Company, where an employee fails to meet the vesting conditions. 2. Voluntary Separation, separation with a severance, or involuntary discharge: Any unvested RSAs will be forfeited on the effective date of separation due to a voluntary separation, separation with a severance, or involuntary discharge of such employees. The Company will reclaim the RSAs granted to them and cancel the same at no extra cost to the Company. 3. Leave Without Pay: All the rights and obligations in connection with the unvested RSAs will not be affected as a result of employees taking extended leave without pay. However, the actual number of shares that may be vested will not only be calculated according to the vesting conditions but also be prorated based on the number of months of their service during the year prior to the applicable vesting day. If such employees are on leave without pay on any vesting day, it shall be deemed that they fail to meet the vesting conditions, and the Company will reclaim the RSAs granted to them and cancel the same at no extra cost to the Company. 4. Retirement: All the rights and obligations in connection with the unvested RSAs will not be affected as a result of an employee's retirement, provided that the employee complies with both of the following conditions after his/her retirement. If any of the following conditions is not met, any unvested RSAs will be forfeited. Exemption could be made case by case by Chairman and CEO. - Not to get any full-time job; and - Not to engage in competition with the Company or the Company's subsidiaries, including without limitation: to join a competitor, to provide any competitive services, to establish any company or business that would involve a competitive foundry process or service, or to employ, induce, or attempt to induce any TSMC employee to undertake competitive services. All the rights and obligations in connection with the unvested RSAs will not be affected as a result of an employee's retirement. However, the actual number of shares that may be vested shall be calculated according to the vesting condition, and the performance rating granted to them shall be deemed "5". 5. Employment Termination Due to Death or Physical Disability Caused by Occupational Accidents: The unvested RSAs shall be deemed immediately vested in the case of death or physical disability due to an occupational accident. For eligible executive officers of the Company, the RSAs vested shall be based on the assumption that the Company's TSR equals to the TSR of S&P 500 IT Index and there is no further adjustment for the Company's ESG achievements. For eligible employees who are not executive officers of the Company and the Company's subsidiaries, the RSAs vested shall be based on the assumption that the Company's Revenue growth, Gross Margin, and ROE are all equal to Threshold. In the case of death, the respective heir(s) may apply for entitlement to those inheritable shares after completing all necessary legal procedures and providing relevant supporting documents. In the case of physical disability caused by occupational injury, the vested RSAs will be received by such employees. 6. Position Transfer: - Where any employees apply for transferring to any of the Company's subsidiaries, affiliates, or other companies, the measures to be taken with respect to their unvested RSAs will be the same as "Voluntary Separation". - Where any employees are assigned by the Company or the Company's subsidiaries to a position in any of the Company's subsidiaries, affiliates, or other companies, all the rights and obligations in connection with the unvested RSAs will not be affected as a result. However, subject to the vesting condition, such employees shall continue working in the assigned subsidiaries, affiliates, or other companies on the vesting dates. Otherwise, they will be considered to fail to meet the vesting conditions, and the Company will reclaim the RSAs granted to them and cancel the same at no extra cost to the Company. With respect to the evaluation of the achievement of individual performance goals, Chairman and Chief Executive Officer will determine whether the vesting conditions are met by reviewing the evaluation of the employees' performance provided by the assigned subsidiaries, affiliates, or other companies. 7. Where any employees declare to voluntarily relinquish the granted RSAs with a written statement, the Company will reclaim the RSAs granted to them and cancel the same at no extra cost to the Company. 8. Where any employees, after being granted the RSAs, breach any agreement with the Company employment agreement or violate the Company's work rules, the Company will reclaim the RSAs granted to them and cancel the same at no extra cost to the Company. 9. Where any employees terminate or revoke their authorization given to the Company regarding the employees' RSA trust/custody account, the Company will reclaim their unvested RSAs and cancel the same at no extra cost to the Company.
Number of Restricted Employee Shares That Have Been Retired or Bought Back	1,081,380 shares
Number of Restricted Employee Shares That Have Vested	501,120 shares
Number of Unvested Restricted Employee Shares	527,500 shares
The Ratio of Number of Unvested Restricted Employee Share to the Total Number of Issued Shares (%)	0.00203%
The Effect on Shareholders' Equity	The potential dilution of the Company's EPS is minimal; therefore, there is no material impact on shareholders' interest.

Type of Employee Restricted Stock	Employee Restricted Stock Awards for Year 2023
Effective Registration Date and Total Number of Shares	12/28/2023 /6,249,000 shares
Issue Date	03/01/2024
Number of Restricted Employee Shares Issued	2,960,000 shares
Number of Restricted Employee Shares Still Available for Issuance	0 share
Issued Price	None
Ratio of the Number of Restricted Employee Shares Issued to the Total Number of Issued Shares	0.01141%
Vesting Conditions of Restricted Employee Shares	1. The RSAs granted to an employee can only be vested if (a) the employee remains employed by the Company or the Company's subsidiaries on the last date of each vesting period; (b) during the vesting period, the employee may not breach any agreement with the Company or the Company's subsidiaries or violate the Company's or the Company's subsidiaries' work rules; and (c) certain employee performance metrics (a year-end performance rating of at least "S" (Note) or above for the year immediately preceding the expiration of each vesting period) and the Company's business performance metrics are met. (Note: "S" stands for "Successful") 2. The maximum percentage of granted RSAs that may be vested each year shall be as follows: one-year anniversary of the grant: 50%; two-year anniversary of the grant: 25%; and three-year anniversary of the grant: 25%; provided that the actual percentage and number of the RSAs to be vested in each year will be calculated based on the achievement of the Company's business performance metrics, as detailed in the following points. 3. For eligible executive officers of the Company: The maximum number of RSAs that may be vested in each year will be set as 110%, among which 100% will be subject to a calculation based on the Company's relative TSR (Note) achievement (see table below) to determine the number of RSAs to be vested; this number will be further subject to a modifier to increase or decrease up to 10% based on the Compensation and People Development Committee's evaluation of the Company's ESG achievements. The number of shares so calculated should be rounded down to the nearest integral.

The Company's TSR Relative to the TSR of S&P 500 IT Index	Ratio of Shares to Be Vested
Above the Index by X percentage points	50% + X * 2.5%, with the maximum of 100%
Equal to the Index	50%
Below the Index by X percentage points	50% - X * 2.5%, with the minimum of 0%

Note: TSR: Total Shareholder Return (including capital gains and dividends)

4. For eligible employees who are not executive officers of the Company and the Company's subsidiaries: The number of RSAs to be vested in each year will be calculated in accordance with the below table based on the Company's audited consolidated financial statements for the year prior to the vesting year. The number of shares so calculated should be rounded down to the nearest integral.

	Threshold	Target	Weighting	Ratio of Shares to Be Vested
Revenue Growth	10%	15%	One-third	•< Threshold: 0% •= Threshold: 50% •≧Target: 100% •Between Threshold and Target: as calculated by interpolation method
Gross Margin	50%	53%	One-third	
Return on Equity (ROE)	20%	25%	One-third	

Restriction on Rights in the Restricted Employee Shares	1. Upon the grant of the RSAs, the RSAs shall be deposited in a trust/custody account. Before the vesting conditions are fulfilled, the employees cannot request the trustee/custodian to return to them the RSAs for any reasons or by any means. 2. During each vesting period, no employees granted RSAs may sell, pledge, transfer, give to another person, create any encumbrance on, or otherwise dispose of, any shares under the unvested RSAs. 3. Subject to the restrictions mentioned above, the rights of the employees with regard to the unvested RSAs granted under these Rules before the fulfillment of the vesting conditions, including but not limited to the entitlement to any distribution regarding dividends, bonuses and capital reserve, and the subscription right of the new shares issued for any capital increase, are the same as those of holders of common shares of the Company. The relevant matters shall be handled in accordance with the RSA trust/custody agreement. 4. Before the vesting conditions are fulfilled, the attendance, proposal rights, speech rights, voting rights and any other shareholder rights shall be exercised by the engaged trustee/custodian on the employees' behalf. 5. During each vesting period, if the Company conducts a capital reduction for cash return, capital reduction for loss offset, or other non-statutory capital reduction, the unvested RSAs shall be cancelled proportionally by the ratio of such capital reduction. If the Company conducts a capital reduction for cash return, the returned cash shall be deposited in a trust/custody account and shall not be delivered to the employees until the vesting conditions are fulfilled; otherwise, the cash will be returned to the Company.

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Custody of the Restricted Employee Shares	1. Upon the grant of the RSAs, the RSAs shall be deposited in a trust/custody account. Before the vesting conditions are fulfilled, the employees cannot request the trustee/custodian to return to them the RSAs for any reasons or by any means. 2. During the period when the granted RSAs are deposited in a trust/custody account, each executive must enter into an agreement authorizing the Company to, among others, negotiate, execute, modify, extend, rescind, and terminate the trust/custody agreement with the trustee/custodian, and give instructions to deliver, use, and dispose of any of the properties under the trust/custody, on their behalf, with full power and authority.
Treatment of the Restricted Shares for Which the Grantee Fails to Meet the Vesting Conditions after Receiving or Subscribing to the Shares	1. The Company will reclaim the granted RSAs and cancel the same at no extra cost to the Company, where an employee fails to meet the vesting conditions. 2. Voluntary Separation, separation with a severance, or involuntary discharge: Any unvested RSAs will be forfeited on the effective date of separation due to a voluntary separation, separation with a severance, or involuntary discharge of such employees. The Company will reclaim the RSAs granted to them and cancel the same at no extra cost to the Company. 3. Leave Without Pay: All the rights and obligations in connection with the unvested RSAs will not be affected as a result of employees taking extended leave without pay. However, the actual number of shares that may be vested will not only be calculated according to the vesting conditions but also be prorated based on the number of months of their service during the year prior to the applicable vesting day. If such employees are on leave without pay on any vesting day, it shall be deemed that they fail to meet the vesting conditions, and the Company will reclaim the RSAs granted to them and cancel the same at no extra cost to the Company. 4. Retirement: All the rights and obligations in connection with the unvested RSAs will not be affected as a result of an employee's retirement, provided that the employee complies with both of the following conditions after his/her retirement. If any of the following conditions is not met, any unvested RSAs will be forfeited. Exemption could be made case by case by Chairman and CEO. - Not to get any full-time job; and - Not to engage in competition with the Company or the Company's subsidiaries, including without limitation: to join a competitor, to provide any competitive services, to establish any company or business that would involve a competitive foundry process or service, or to employ, induce, or attempt to induce any TSMC employee to undertake competitive services. All the rights and obligations in connection with the unvested RSAs will not be affected as a result of an employee's retirement. However, the actual number of shares that may be vested shall be calculated according to the vesting condition, and the performance rating granted to them shall be deemed "5". 5. Employment Termination Due to Death or Physical Disability Caused by Occupational Accidents: The unvested RSAs shall be deemed immediately vested in the case of death or physical disability due to an occupational accident. For eligible executive officers of the Company, the RSAs vested shall be based on the assumption that the Company's TSR equals to the TSR of S&P 500 IT Index and there is no further adjustment for the Company's ESG achievements. For eligible employees who are not executive officers of the Company and the Company's subsidiaries, the RSAs vested shall be based on the assumption that the Company's Revenue growth, Gross Margin, and ROE are all equal to Threshold. In the case of death, the respective heir(s) may apply for entitlement to those inheritable shares after completing all necessary legal procedures and providing relevant supporting documents. In the case of physical disability caused by occupational injury, the vested RSAs will be received by such employees. 6. Position Transfer: - Where any employees apply for transferring to any of the Company's subsidiaries, affiliates, or other companies, the measures to be taken with respect to their unvested RSAs will be the same as "Voluntary Separation". - Where any employees are assigned by the Company or the Company's subsidiaries to a position in any of the Company's subsidiaries, affiliates, or other companies, all the rights and obligations in connection with the unvested RSAs will not be affected as a result. However, subject to the vesting condition, such employees shall continue working in the assigned subsidiaries, affiliates, or other companies on the vesting dates. Otherwise, they will be considered to fail to meet the vesting conditions, and the Company will reclaim the RSAs granted to them and cancel the same at no extra cost to the Company. With respect to the evaluation of the achievement of individual performance goals, Chairman and Chief Executive Officer will determine whether the vesting conditions are met by reviewing the evaluation of the employees' performance provided by the assigned subsidiaries, affiliates, or other companies. 7. Where any employees declare to voluntarily relinquish the granted RSAs with a written statement, the Company will reclaim the RSAs granted to them and cancel the same at no extra cost to the Company. 8. Where any employees, after being granted the RSAs, breach any agreement with the Company employment agreement or violate the Company's work rules, the Company will reclaim the RSAs granted to them and cancel the same at no extra cost to the Company. 9. Where any employees terminate or revoke their authorization given to the Company regarding the employees' RSA trust/custody account, the Company will reclaim their unvested RSAs and cancel the same at no extra cost to the Company.
Number of Restricted Employee Shares That Have Been Retired or Bought Back	74,000 shares
Number of Restricted Employee Shares That Have Vested	1,406,000 shares
Number of Unvested Restricted Employee Shares	1,480,000 shares
The Ratio of Number of Unvested Restricted Employee Share to the Total Number of Issued Shares (%)	0.00571%
The Effect on Shareholders' Equity	The potential dilution of the Company's EPS is minimal; therefore, there is no material impact on shareholders' interest.

Type of Employee Restricted Stock	Employee Restricted Stock Awards for Year 2024
Effective Registration Date and Total Number of Shares	07/31/2024 /4,185,000 shares
Issue Date	09/01/2024
Number of Restricted Employee Shares Issued	2,353,000 shares
Number of Restricted Employee Shares Still Available for Issuance	1,832,000 shares
Issued Price	None
Ratio of the Number of Restricted Employee Shares Issued to the Total Number of Issued Shares	0.00907%
Vesting Conditions of Restricted Employee Shares	1. The RSAs granted to an employee can only be vested if (a) the employee remains employed by the Company or the Company's subsidiaries on the last date of each vesting period; (b) during the vesting period, the employee may not breach any agreement with the Company or the Company's subsidiaries or violate the Company's or the Company's subsidiaries' work rules; and (c) certain employee performance metrics (a year-end performance rating of at least "S" (Note) or above for the year immediately preceding the expiration of each vesting period) and the Company's business performance metrics are met. (Note: "S" stands for "Successful") 2. The maximum percentage of granted RSAs that may be vested each year shall be as follows: one-year anniversary of the grant: 50%; two-year anniversary of the grant: 25%; and three-year anniversary of the grant: 25%; provided that the actual percentage and number of the RSAs to be vested in each year will be calculated based on the achievement of the Company's business performance metrics, as detailed in the following points. 3. For eligible executive officers of the Company: The maximum number of RSAs that may be vested in each year will be set as 110%, among which 100% will be subject to a calculation based on the Company's relative TSR (Note) achievement (see table below) to determine the number of RSAs to be vested; this number will be further subject to a modifier to increase or decrease up to 10% based on the Compensation and People Development Committee's evaluation of the Company's ESG achievements. The number of shares so calculated should be rounded down to the nearest integral.

The Company's TSR Relative to the TSR of S&P 500 IT Index	Ratio of Shares to Be Vested
Above the Index by X percentage points	50% + X * 2.5%, with the maximum of 100%
Equal to the Index	50%
Below the Index by X percentage points	50% - X * 2.5%, with the minimum of 0%

Note: TSR: Total Shareholder Return (including capital gains and dividends)

4. For eligible employees who are not executive officers of the Company and the Company's subsidiaries: The number of RSAs to be vested in each year will be calculated in accordance with the below table based on the Company's audited consolidated financial statements for the year prior to the vesting year. The number of shares so calculated should be rounded down to the nearest integral.

	Threshold	Target	Weighting	Ratio of Shares to Be Vested
Revenue Growth	10%	15%	One-third	•< Threshold: 0% •= Threshold: 50% •≧Target: 100% •Between Threshold and Target: as calculated by interpolation method
Gross Margin	50%	53%	One-third	
Return on Equity (ROE)	20%	25%	One-third	

Restriction on Rights in the Restricted Employee Shares	1. Upon the grant of the RSAs, the RSAs shall be deposited in a trust/custody account. Before the vesting conditions are fulfilled, the employees cannot request the trustee/custodian to return to them the RSAs for any reasons or by any means. 2. During each vesting period, no employees granted RSAs may sell, pledge, transfer, give to another person, create any encumbrance on, or otherwise dispose of, any shares under the unvested RSAs. 3. Subject to the restrictions mentioned above, the rights of the employees with regard to the unvested RSAs granted under these Rules before the fulfillment of the vesting conditions, including but not limited to the entitlement to any distribution regarding dividends, bonuses and capital reserve, and the subscription right of the new shares issued for any capital increase, are the same as those of holders of common shares of the Company. The relevant matters shall be handled in accordance with the RSA trust/custody agreement. 4. Before the vesting conditions are fulfilled, the attendance, proposal rights, speech rights, voting rights and any other shareholder rights shall be exercised by the engaged trustee/custodian on the employees' behalf. 5. During each vesting period, if the Company conducts a capital reduction for cash return, capital reduction for loss offset, or other non-statutory capital reduction, the unvested RSAs shall be cancelled proportionally by the ratio of such capital reduction. If the Company conducts a capital reduction for cash return, the returned cash shall be deposited in a trust/custody account and shall not be delivered to the employees until the vesting conditions are fulfilled; otherwise, the cash will be returned to the Company.

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Custody of the Restricted Employee Shares	1. Upon the grant of the RSAs, the RSAs shall be deposited in a trust/custody account. Before the vesting conditions are fulfilled, the employees cannot request the trustee/custodian to return to them the RSAs for any reasons or by any means. 2. During the period when the granted RSAs are deposited in a trust/custody account, each executive must enter into an agreement authorizing the Company to, among others, negotiate, execute, modify, extend, rescind, and terminate the trust/custody agreement with the trustee/custodian, and give instructions to deliver, use, and dispose of any of the properties under the trust/custody, on their behalf, with full power and authority.
Treatment of the Restricted Shares for Which the Grantee Fails to Meet the Vesting Conditions after Receiving or Subscribing to the Shares	1. The Company will reclaim the granted RSAs and cancel the same at no extra cost to the Company, where an employee fails to meet the vesting conditions. 2. Voluntary Separation, separation with a severance, or involuntary discharge: Any unvested RSAs will be forfeited on the effective date of separation due to a voluntary separation, separation with a severance, or involuntary discharge of such employees. The Company will reclaim the RSAs granted to them and cancel the same at no extra cost to the Company. 3. Leave Without Pay: All the rights and obligations in connection with the unvested RSAs will not be affected as a result of employees taking extended leave without pay. However, the actual number of shares that may be vested will not only be calculated according to the vesting conditions but also be prorated based on the number of months of their service during the year prior to the applicable vesting day. If such employees are on leave without pay on any vesting day, it shall be deemed that they fail to meet the vesting conditions, and the Company will reclaim the RSAs granted to them and cancel the same at no extra cost to the Company. 4. Retirement: All the rights and obligations in connection with the unvested RSAs will not be affected as a result of an employee's retirement, provided that the employee complies with both of the following conditions after his/her retirement. If any of the following conditions is not met, any unvested RSAs will be forfeited. Exemption could be made case by case by Chairman and CEO. - Not to get any full-time job; and - Not to engage in competition with the Company or the Company's subsidiaries, including without limitation: to join a competitor, to provide any competitive services, to establish any company or business that would involve a competitive foundry process or service, or to employ, induce, or attempt to induce any TSMC employee to undertake competitive services. All the rights and obligations in connection with the unvested RSAs will not be affected as a result of an employee's retirement. However, the actual number of shares that may be vested shall be calculated according to the vesting condition, and the performance rating granted to them shall be deemed "5". 5. Employment Termination Due to Death or Physical Disability Caused by Occupational Accidents: The unvested RSAs shall be deemed immediately vested in the case of death or physical disability due to an occupational accident. For eligible executive officers of the Company, the RSAs vested shall be based on the assumption that the Company's TSR equals to the TSR of S&P 500 IT Index and there is no further adjustment for the Company's ESG achievements. For eligible employees who are not executive officers of the Company and the Company's subsidiaries, the RSAs vested shall be based on the assumption that the Company's Revenue growth, Gross Margin, and ROE are all equal to Threshold. In the case of death, the respective heir(s) may apply for entitlement to those inheritable shares after completing all necessary legal procedures and providing relevant supporting documents. In the case of physical disability caused by occupational injury, the vested RSAs will be received by such employees. 6. Position Transfer: - Where any employees apply for transferring to any of the Company's subsidiaries, affiliates, or other companies, the measures to be taken with respect to their unvested RSAs will be the same as "Voluntary Separation". - Where any employees are assigned by the Company or the Company's subsidiaries to a position in any of the Company's subsidiaries, affiliates, or other companies, all the rights and obligations in connection with the unvested RSAs will not be affected as a result. However, subject to the vesting condition, such employees shall continue working in the assigned subsidiaries, affiliates, or other companies on the vesting dates. Otherwise, they will be considered to fail to meet the vesting conditions, and the Company will reclaim the RSAs granted to them and cancel the same at no extra cost to the Company. With respect to the evaluation of the achievement of individual performance goals, Chairman and Chief Executive Officer will determine whether the vesting conditions are met by reviewing the evaluation of the employees' performance provided by the assigned subsidiaries, affiliates, or other companies. 7. Where any employees declare to voluntarily relinquish the granted RSAs with a written statement, the Company will reclaim the RSAs granted to them and cancel the same at no extra cost to the Company. 8. Where any employees, after being granted the RSAs, breach any agreement with the Company employment agreement or violate the Company's work rules, the Company will reclaim the RSAs granted to them and cancel the same at no extra cost to the Company. 9. Where any employees terminate or revoke their authorization given to the Company regarding the employees' RSA trust/custody account, the Company will reclaim their unvested RSAs and cancel the same at no extra cost to the Company.
Number of Restricted Employee Shares That Have Been Retired or Bought Back	0 share
Number of Restricted Employee Shares That Have Vested	0 share
Number of Unvested Restricted Employee Shares	2,353,000 shares
The Ratio of Number of Unvested Restricted Employee Share to the Total Number of Issued Shares (%)	0.00907%
The Effect on Shareholders' Equity	The potential dilution of the Company's EPS is minimal; therefore, there is no material impact on shareholders' interest.

4.6.2 Employee Restricted Stock Granted to Management Team and to Top 10 Employees

Unit: Share

	Title	Name	No. of Employee Restricted Stock Granted	Employee Restricted Stock as a Percentage of Shared Issued (Note 1)	No. of Shares
Management Team and Employee	Chairman & Chief Executive Officer	C.C. Wei (Note 2)	8,810,000	0.03397%	2,510,563
	Senior Vice President, Chief Financial Officer/Spokesperson	Wendell Huang			
	Executive Vice President and Co-Chief Operating Officer	Y.P. Chyn (Note 3)			
	Executive Vice President and Co-Chief Operating Officer	Y.J. Mii (Note 3)			
	Senior Vice President and Deputy Co-Chief Operating Officer/Information Security Officer	Cliff Hou (Note 4 and Note 5)			
	Senior Vice President and Deputy Co-Chief Operating Officer	Kevin Zhang (Note 4)			
	Senior Vice President	Lora Ho			
	Senior Vice President	Wei-Jen Lo			
	Senior Vice President/	J.K. Lin			
	Senior Vice President	J.K. Wang (Note 6)			
	Senior Vice President and Genreral Counsel/Corporate Governance Officer	Sylvia Fang			
	Vice President	Connie Ma (Note 6)			
	Vice President/CEO, TSMC Arizona	Y.L. Wang			
	Vice President and TSMC Distinguished Fellow	Douglas Yu			
	Vice President and TSMC Fellow	T.S. Chang			
	Vice President	Michael Wu			
	Vice President	Min Cao			
	Vice President	Marvin Liao (Note 6)			
	Vice President/CEO, JASM	Y.H. Liaw			
	Vice President	Simon Jang			
	Vice President	C.S. Yoo			
	Vice President	Jun He			
	Vice President	Geoffrey Yeap			
	Vice President and Chief Information Officer	Chris Horng-Dar Lin			
	Vice President	Jonathan Lee			
	Vice President	Arthur Chuang			
	Vice President and TSMC Fellow	L.C. Lu			
	Vice President	K.C. Hsu			
	Vice President/Managing Director, ESMC	Ray Chuang			
	Vice President	Vanessa Lee (Note 7)			
	Employee	Y.C. Huang (Note 6)			

Note 1: The number of shares issued is based on the amended number of total shares disclosed on Ministry of Economic Affairs as of 12/18/2024.
Note 2: Dr. C.C. Wei was elected as Chairman and Chief Executive Officer (CEO), effective June 4, 2024.
Note 3: Mr. Y.P. Chyn and Dr. Y.J. Mii were appointed as Executive Vice Presidents and Co-Chief Operating Officers, effective on March 1, 2024.
Note 4: Dr. Cliff Hou and Dr. Kevin Zhang were appointed as Senior Vice Presidents and Deputy Co-Chief Operating Officers, effective on March 1, 2024.
Note 5: Dr. Cliff Hou was appointed as Chief Information Security Officer, effective January 1, 2025.
Note 6: Vice President J.K. Wang retired, effective May 7, 2022. Vice President Connie Ma retired, effective November 1, 2022. Vice President Dr. Marvin Liao retired, effective November 11, 2022. Mr. Y.C. Huang retired, effective May 1, 2022.
Note 7: Ms. Vanessa Lee was promoted to Vice President, effective August 13, 2024.

4.7 Status of New Share Issuance in Connection with Mergers and Acquisitions: None.

As of 03/01/2025

Restrictions Released			Restrictions Unreleased			
Issued Price (NT$)	Issued Amount (NT$ thousands)	Released Shares as a Percentage of Shares Issued (Note 1)	No. of Shares	Issued Price (NT$)	Issued Amount (NT$ thousands)	Unreleased Shares as a Percentage of Shares Issued (Note 1)
0	0	0.00968%	4,360,500	0	0	0.01681%

4.8 Funding Plans and Implementation

The funds raised by TSMC through issuances of domestic corporate bonds are used in accordance with respective funding plans and actual needs. As of the end of the fourth quarter of 2024, the implementation status of each uncompleted plan was as follow:

Projects	Gross Proceeds	Use of Proceeds	Implementation Status
Unsecured Corporate Bond (113-1, Green Bond)	NT$22.8 billion	Green buildings and environmental protection related expenditures	As of the end of the fourth quarter of 2024, the actual completion rate of fund uses was 80.71%, higher than the original plan of 33.87%, reflecting the progress of actual payment application. The funds were used in accordance with the original plans and there were no material differences between the expected benefits and the actual ones.
Unsecured Corporate Bond (113-2, Green Bond)	NT$11.5 billion	Green buildings and environmental protection related expenditures	The funds are scheduled to be used from the first quarter of 2026.

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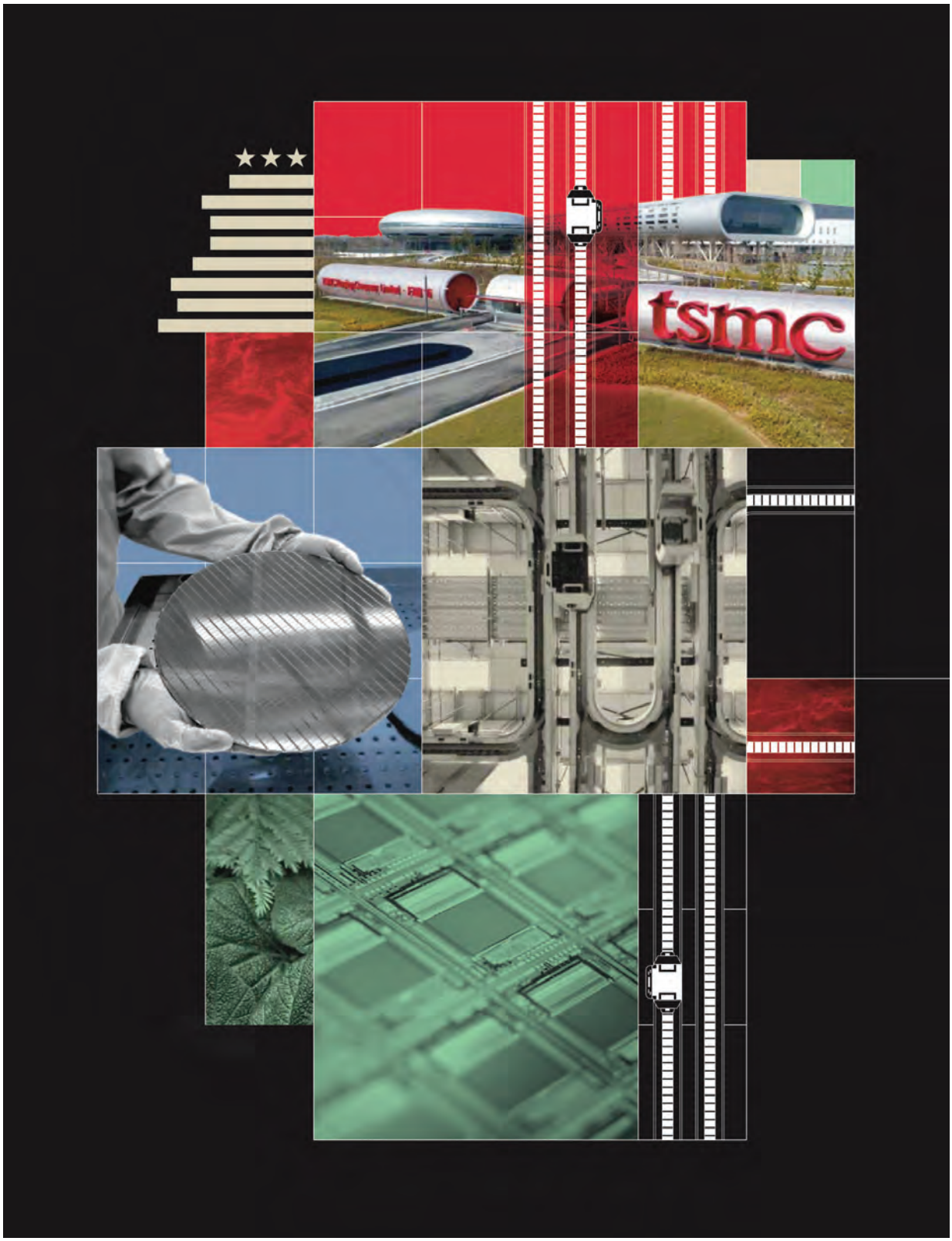
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Operational Highlights

TSMC manufactured 11,878 different products using 288 distinct technologies for 522 different customers.

5.1 Business Activities

5.1.1 Business Scope

As the founder and a leader of the dedicated semiconductor foundry segment, TSMC provides a full range of integrated semiconductor foundry services including leading advanced process and specialty technologies, advanced mask technologies, TSMC 3DFabric® advanced silicon stacking and packaging technologies, excellent manufacturing productivity and quality, as well as comprehensive design ecosystem support, to meet a growing variety of customer needs. The Company strives to provide unparalleled total value to its customers and views customer success as its own success. As a result, TSMC has gained customer trust from around the world and has experienced strong growth and success of its own.

TSMC developed or introduced the following technologies in 2024:

Logic Technology

- TSMC A16™ process technology, the Company's newest technology offering with nanosheet transistor structure and the innovative backside power rail solution, brings greatly improved logic density and performance. It will further extend TSMC's technology leadership with even better power, performance and area (PPA) than N2P.
- 2nm (N2) technology development made significant progress in 2024. N2 technology features TSMC's first generation of nanosheet transistor technology with full-node strides in performance and power consumption. Volume production is expected in the second half of 2025.
- 3nm fin field-effect transistor (FinFET) (N3) technology entered its third year of volume production in 2024 for customers' smartphone and high-performance computing (HPC) products.
- N3 Enhanced (N3E) technology, an enhanced version of N3 technology, continues to provide industry-leading advantages for both mobile communication and HPC applications. Volume production started in the fourth quarter of 2023 and ramped up in 2024.
- N3P technology, an enhanced version of N3E technology, provides industry-leading advantages for both mobile communications and HPC applications. Volume production began in the second half of 2024.
- N3X technology, a process tailored for HPC applications was introduced in 2023. This technology completed qualification in the fourth quarter of 2024, and its volume production is expected to commence in 2025.
- 4nm FinFET (N4) technology, an enhanced version of 5nm FinFET (N5) technology, entered its third year of volume production in 2024.
- N4P technology, with additional performance boost over N4 technology, entered its third year of volume production in 2024.
- N4 Compact (N4C) technology features innovative process improvements that offer higher density components and simplified process flow compared to N4P technology. This technology was developed in 2024 and is planned for customer products tape-outs in 2025.
- N4X technology, introduced in 2021, is TSMC's first HPC-focused technology, representing the ultimate performance and maximum clock frequencies in TSMC's 5nm family. Its volume production started in 2024.
- N5 Plus (N5P) technology, a performance-enhanced version of 5nm technology (N5), entered its fourth year of volume production in 2024 for customers' smartphones and HPC products.
- 6nm FinFET (N6) technology, widely adopted for smartphones, HPC, and digital consumer electronics (DCE) products, entered its fifth year of volume production in 2024.
- N6e®, N6 Ultra-Low Power (ULP) technology's process design kit (PDK) was completed in the fourth quarter of 2023 and the technology started production in the fourth quarter of 2024.
- 7nm FinFET (N7) and 7nm FinFET Plus (N7+), which have been in volume production for customers' 5G and HPC products for several years, entered their fourth year of volume production for DCE and automotive products in 2024.
- N12e® specialty technology continued its extensive adoption in 2024. This technology leverages TSMC's 12nm FinFET Compact Plus (12FFC+) baseline and incorporates a silicon-proven "Low Vdd Design Guidance" to help customers achieve an accurate and user-friendly low Vdd design sign-off methodology. Additionally, Low Vdd standard cells libraries and Low Vdd static random-access memory (SRAM) compilers help customers design ULP products with extreme low Vdd capabilities.
- 22ULL technology entered its fifth year of volume production in 2024 having been adopted in a wide range of applications, including wireless connectivity products such as Bluetooth and Wi-Fi for IoT, digital TV chips, and smartphones.

Specialty Technology

- N3A V0.9 PDK was released in 2024. Based on its N3E technology, TSMC introduced the N3 Auto Early (N3AE) program in 2023, providing automotive PDKs to support

automotive customers to design with the most advanced 3nm technology for automotive applications. N3A technology is expected to complete automotive grade qualification, automotive design enablement platform (ADEP) development, and the release of V1.0 PDK by the end of 2025.

- N4C radio frequency (N4C RF) technology, the next generation of N4P RF technology, is on track in development in 2024 and is expected to be launched in 2025.
- 5nm FinFET Automotive (N5A) technology received multiple customer product tape-outs since 2023. These products were successfully prototyped, qualified for automotive applications, and are expected to enter volume production utilizing TSMC's automotive service package (ASP) in 2025.
- Second-generation N6 RF (N6 RF+) technology development was completed and its V1.1 PDK was finalized in 2024.
- 12FFC+ RF technology process enhancements offer an advanced RF fT/fMAX corner model and feature the ultra-thicker metal with aggressive metal width push. The technology continues volume production for customers' 4G and 5G cellular RF and IoT wireless connectivity products since 2023.
- 16FFC FinFET Compact (16FFC) RF Enhancement III technology, with continuous improvement of 16FFC RF technology is expected to be launched in the second half of 2025. 16FFC RF technology has received many customer tape-outs since 2021. The development of its enhanced version (Enhancement I/II) was completed in 2022 to support applications such as 28/39/47GHz mmWave RF front-end module and 77GHz/79GHz automotive radar.
- N12e® RRAM, TSMC's third-generation RRAM solution, features balanced cost and reliability. This technology entered risk production for consumer grade in 2024.
- 28ULL resistive random-access memory (RRAM) technology, TSMC's second-generation RRAM technology, passed Automotive Grade-1 technology qualification in 2024.
- 28nm high voltage (HV) technology began volume production for smartphone organic light-emitting diode (OLED) display applications in 2024.
- 40nm silicon on insulator (N40SOI) technology on 12-inch wafers, which provides industry-leading competitive advantages, entered its third year of volume production in 2024.
- 80nm technology for micro-OLED-on-Silicon display backplanes in augmented reality (AR)/virtual reality (VR) devices entered volume production in 2024. This technology offers extremely high density with over 3,000 pixels per inch (ppi), enhancing vision quality for near-eye applications.
- Advanced 40nm Bipolar-CMOS-DMOS (BCD) technology PDK was ready in 2024.
- Competitive 90nm BCD technology received multiple tape-outs and started volume production in 2024. This technology is positioned as the next platform for 0.18μm BCD technology for high digital content products such as charger and audio amplifier ICs. Additionally, the new continuous improvement plan (CIP) is underway, targeting server applications, and its PDK is scheduled to be ready by 2026.
- 0.13μm BCD technology will continue to be optimized, for the digital consumer electronics (DCE) and automotive markets. Its latest PDK will be released in 2025.
- The switch device of the second-generation 6-inch gallium nitride (GaN) on silicon technology was qualified in 2024. This technology will support both DCE and automotive electronics applications. In addition, the 8-inch GaN on silicon technology development is on track.
- CMOS image sensor (CIS) technology was enhanced and progressed to the next generation, further strengthening the capabilities of advanced CISs. In 2024, TSMC helped customers roll out advanced high dynamic range products to the market.
- For silicon photonics technology, the Company continued development work on an innovative 3D photonics stacking technology – compact universal photonics engine (COUPE), which can integrate silicon photonics chip and electrical control chip into a single-chip photonic engine. This photonics engine can be co-packaged with HPC chip to provide low-power and high-speed data transmission. The data rate of the test vehicles using TSMC's COUPE technology achieved its targeted goal in 2024. TSMC also continued working on co-packaged optics (CPO) solutions to reduce data transmission power consumption in data centers.

TSMC 3DFabric® – TSMC Advanced 3D Silicon Stacking and Packaging Technologies

- TSMC-SoIC® Chip on Wafer N5 system on integrated chip (SoIC) stacking technology entered its second year of volume production for HPC products in 2024, and N3 SoIC stacking technology volume production is expected in 2025.
- TSMC-COUPE™ technology service, which integrates silicon photonics and electrical control chips using TSMC-SoIC® Chip on Wafer stacking process, is on track in development for high-speed data transmission products.
- Chip on Wafer on Substrate (CoWoS®) technology service integrates multiple system-on-chip (SoC) chips, and the high bandwidth memory stacks on the interposer wafer to enable HPC products with more compute power and

memory bandwidth. Chip on Wafer on Substrate with Silicon Interposer (CoWoS®-S) technology service featuring high interconnect routing density and embedded deep trench capacitor (eDTC) has been in volume production for several years.

- Chip on Wafer on Substrate with Redistribution Layer Interposer (CoWoS®-R) technology service, featuring multiple redistribution layers (RDL) to enable product design simplicity, supports larger HPC products. This technology entered its second year of volume production in 2024.
- CoWoS®-L technology service, combining Chip on Wafer on Substrate with RDL-based interposer and embedded local silicon interconnect (LSI), improves product design flexibility by integrating a variety of embedded chips. LSI with higher routing density and eDTC facilitates the expansion of HPC products to larger sizes. This technology started volume production in 2024.
- TSMC-SoW™ system on wafer technology service enables wafer-level heterogeneous integration for next-generation data center computing chips with better power efficiency, higher bandwidth and greater chip density. The first generation (logic only) technology entered volume production in 2024.
- Integrated Fan-Out Multi-chips with Package-on-Package (InFO-M-PoP) technology, which integrates multiple heterogeneous chips with package stacking for wearable products, entered its second year of volume production in 2024.
- Fine pitch copper (Cu) bump technology for flip chip packaging on 2nm silicon completed qualification in 2024.

5.1.2 Customer Applications

TSMC manufactured 11,878 different products for 522 customers in 2024. These chips were used across a broad spectrum of electronic applications, including artificial intelligence (AI) and high-performance computing servers, wired and wireless communication systems, automotive and industrial equipment, personal computers and peripherals and information appliances, as well as consumer electronics such as digital TVs, game consoles, digital cameras, AI-enabled IoT and wearables, and many others.

The rapid ongoing evolution of end products prompts customers to pursue product differentiation using TSMC's innovative technologies and services and, at the same time, spurs TSMC's own development of technology. As always, TSMC believes success depends on leading rather than following industry trends.

5.2 Technology Leadership

5.2.1 R&D Organization and Investment

The semiconductor industry is characterized by rapid technological change, frequently resulting in the introduction of new technologies to meet customer demand. To stay technologically ahead of its competitors and to maintain its strong market position in the foundry segment, TSMC believes it must continue its technology lead across the semiconductor industry.

In 2024, TSMC continued to invest in research and development, with total R&D expenditures amounting to 7.1% of revenue, a level that equals or exceeds the R&D investment of many other leading high-tech companies.

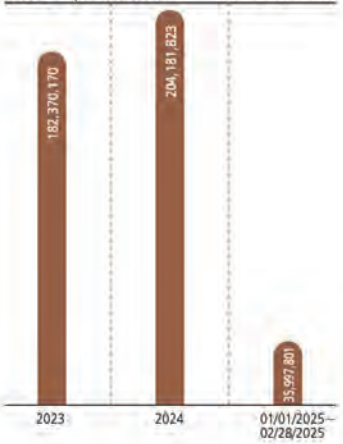
The Company continuously invests significant amounts in R&D to maintain its leading position in the advancement of process technologies. These efforts have allowed customers to access certain advanced process technologies, such as 7nm, 5nm and 3nm technology for volume production, ahead of competitors and many integrated device manufacturers. In addition, the Company is committed to developing more advanced process technologies to the 2-nanometer level and below in the coming years to sustain its technology leadership.

In 2024, as the development of 2nm technology progressed from baseline setup to yield enhancement stage, TSMC made good progress in the development of TSMC's 16 Angstrom (A16) and 14 Angstrom (A14) technologies, which aim to further improve speed, power, density and cost. In addition, the Company's research efforts continued to push forward with exploratory studies for nodes beyond A14. The Company will also continue to invest in R&D for mature technologies to provide function-rich process capabilities to its customers.

TSMC's research and development efforts are divided into two areas: centralized activities and those undertaken by individual fabs. Centralized R&D focuses primarily on the development of new logic, SoC, derivatives and package/system-in-package (SIP) technologies, along with cost-effective 3D wafer-level system integration solutions, including InFO, CoWoS®, and TSMC-SoIC® technologies. R&D at the fab level is mainly concentrated on improving and upgrading manufacturing process technologies.

TSMC has long maintained strong partnerships with several worldclass research institutions, including Semiconductor Research Corporation (SRC) in the U.S. and Interuniversity Microelectronics Centre (IMEC) in Belgium. The Company also continued to expand research collaboration with leading universities worldwide not only to advance semiconductor technologies but also to nurture human talent for the future.

R&D Expenditures Amount: NT$ thousands



5.2.2 R&D Accomplishments in 2024

Highlights

• 2nm Technology

In 2024, TSMC's 2nm technological development focused on baseline setup, yield enhancement, transistor and interconnect R/C performance improvement, and reliability evaluation. During the year, customers completed IP design and qualification, and the first customer new tape-out (NTO) was done. The Company also developed low resistance RDL (redistribution layer) and super-high performance metal-insulator-metal (MiM) capacitors to further boost performance.

• A16 Technology

TSMC's A16 technology development made significant progress in 2024. This platform enhances logic gate density and power efficiency in order to more efficiently support high performance computing applications. Compared to 2nm process technology, A16 process technology adopts a backside power delivery network resulting in major speed, power, and density improvements.

• A14 Technology

The Company made significant advances in 2024 in developing its A14 technology, targeting both mobile SoC and HPC applications. The A14 platform is expected to create significant improvement in speed, power, density and cost over 2nm technology. Development activities focused on manufacturing baseline process setup, yield learning, transistor and interconnect R/C performance. TSMC plans to continue full development of A14 in 2025.

• Lithography Technology

In 2024, TSMC R&D lithography development focused on improving wafer yield for 2nm risk production. At the same time, the Company continued to enhance the application efficiency of EUV scanners, reduce material defects, and improve planarization in support A16 and A14 production. TSMC A16™ process technology is the next nanosheet-based technology and features Super Power Rail technology. In terms of lithography improvements in overlay errors demonstrated good performance with expected wafer yield. Looking ahead to A14 and beyond, TSMC's R&D will continue to focus on developing more advanced lithography processes, researching mask pellicles and blanks, exploring new materials, and reducing costs. Moving forward, TSMC lithography will integrate high numerical-aperture (High-NA) EUV technology to maintain leadership in lithography technology.

• Mask Technology

In 2024, the TSMC R&D team completed 2nm technology transfer. To achieve the wafer yield and productivity for the lithography requirements for A14 node, the team improved the uniformity of critical dimensions, pattern fidelity, and overlay accuracy of curvilinear patterns through EUV blank material modification, multi-beam writer resolution enhancement, and mask process optimization. In addition, advanced e-beam inspection was developed to enhance the defect sensitivity to improve the EUV mask reliability. Future improvements will focus on developing new blank materials and new mask process technologies.

Integrated Interconnect and Packaging

TSMC's fine pitch, chip-to-chip connection leveraging wafer processes is called 3DFabric® technology service and consists of both wafer-level frontend and backend technologies. The Company's frontend technologies, or TSMC-SoIC®, enables leading-edge silicon for 3D silicon stacking. TSMC's advanced backend technologies includes CoWoS® advanced packaging service with chips placed onto pre-made RDLs and InFO with chips embedded before interconnection. The Company's 3DFabric® technology service offers the ultimate flexibility

in product design with integrated frontend and backend technologies to meet future computing systems integration scaling needs.

• **3DIC and TSMC-SoIC®**
TSMC-SoIC® wafer product is an innovative wafer-level frontend 3DIC chip stacking platform with outstanding bonding density, interconnect bandwidth, power efficiency, and thin profile. It extends Moore's Law through system-level scaling with sustainable performance gains and corresponding cost benefits. SoIC integrated chips can be subsequently assembled by using conventional packages or TSMC's new 3DFabric® technology services, such as CoWoS® or InFO, for next generation HPC, artificial intelligence (AI) and mobile applications. The SoIC CoW Face-to-Back Gen-1 process is in production and the SoIC CoW Face-to-Back Gen-2 process, with significant thermal performance improvement, was qualified and started production in 2024. The SoIC CoW Face-to-Face Gen-1 process is under qualification and will provide an ultrahigh density connection solution. Gen-2 process, with advanced SoC (N2 and beyond) compatibility, is under development and will provide better band width and power performance gain. The first-generation Compact Universal Photonics Engine (COUPE) with electrical chip on photonics chip using SoIC bond has progressed well. TSMC will continue to pursue SoIC technological improvements and co-optimize with the Company's advanced silicon technologies for further gains in transistor density, system PPA (power, performance and area) and cost.

• **CoWoS®**
As the leading 2.5D advanced packaging technology, CoWoS® advanced packaging service is experiencing strong growth momentum due to the surging AI demand since 2023. The CoWoS®-S Si interposer technology has advanced from 1.0-reticle to 3.3-reticle size (1 reticle size is approximately 830mm^2) during the past decade. The development focus is now shifted to CoWoS®-L with reconstituted interposer of multiple local silicon interconnects (LSIs). The first CoWoS®-L at 3.5-reticle size has been developed and entered production in 2024. New CoWoS®-L development targeting 5.5-reticle size interposer has been launched this year to meet higher performance goal in a package. In parallel, CoWoS® Co-packaged optics (CPO) for ultra-high-end network switch is under development to integrate interposer-based CoW module and COUPE-based optical IO's in one package to achieve higher data bandwidth and to reduce system power consumption.

• **InFO**
In 2024, TSMC continued its industry leadership in high-volume manufacturing of InFO_PoP packaging for mobile applications. The new feature with backside RDL, was also qualified and ready for volume production.

• **Advanced Interconnect**
With the growing demand for high performance and low power consumption products, TSMC's continuous innovations on back-end-of-line interconnect provide its customers with competitive solutions. In 2024, the Company developed a novel interconnect structure that delivers power reduction as well as improvements in speed and routing density. Furthermore, the research on advanced materials demonstrated significant capacitance reduction with robust reliability. Those innovations will allow TSMC to continue scale interconnect for future generations of technology.

Corporate Research
TSMC corporate research stayed at the forefront of low-dimensional transistor exploration with innovation in devices and materials to drive higher performance and lower power consumption to enable extremely scaled logic transistors. At the 2024 Symposium on VLSI Technology and Circuits (VLSI Symposium), TSMC demonstrated a high performance nanosheet transistor with dense aligned one-dimensional carbon nanotube channel. With simultaneously improved gate control, channel transconductance (g_m) and contact resistance (R_c), this work demonstrated the highest performing 1-D carbon nanotube transistor (CNFET). From a process integration perspective, at the 2024 IEEE International Electron Devices Meeting (IEDM) TSMC presented the first electrical demonstration of a two-stacked nanosheet (NS) FET with a monolayer MoS_2 channel, utilizing a typical nanosheet release process prior to high-K metal gate deposition.

For potential applications in 3-D integration with CMOS technology, TSMC continued its extensive research on back-end-of-line (BEOL) compatible oxide semiconductor field-effect transistors (OSFET). At the 2024 VLSI Symposium, TSMC presented a high-quality SnO oxide semiconductor channel that demonstrated the first successful sub-100nm channel length p-type SnO OSFET with ion current density 10~20 $\mu A/\mu m$ and Ion/Ioff ratio over 10^4. Also, at the 2024 IEDM TSMC reported a n-type OSFET with W-doped In_2O_3 (IWO) channel using atomic layer deposition (ALD). An oxide capping layer and post-capping anneal were used to demonstrate an enhancement-mode ALD IWO OSFET

with improved performance and stability, overcoming the traditional trade-off between mobility/performance and enhancement-mode operation for OSFET.

TSMC also continues to research emerging high-density, non-volatile memory devices and hardware accelerators for AI and HPC applications. At the 2024 IEDM, TSMC presented a STT-MRAM Design-Technology-System Co-Optimization (DTSCO) for AI edge devices. In this work, a novel capacitive-coupling sense amplifier was developed to provide low read energy consumption and improved robustness. Through this DTSCO approach the Company showed significant improvements in read energy efficiency (27.1% to 45.3%).

Specialty Technologies

TSMC offers a broad array of technologies to address a wide range of applications:

- **Mixed Signal/Radio Frequency (MS/RF)**

As the digital transformation continues, accelerated in part by the rapid rise of AI, the leap from 3nm to 2nm logic process has paved the way to meet the computational demands of a digital-first world. At the same time, as the world becomes more connected and data-driven, RF and MS technologies are also the cornerstones in next-generation semiconductor design. In 2024, several cost-effective and performance-enhancing process knobs were added to extend TSMC RF technology from 6nm to 4nm node, which can enable cutting-edge applications in sub-6GHz RF wireless transceiver (WTR), wireless local area networking (WLAN), and true wireless stereo (TWS) sectors. For other increasing demands in 5G mmWave and sub-6GHz RF front-end module (FEM) sectors, TSMC also made great strides in improving RF device and circuit KPI by pioneering innovative RF design technology co-optimization (DTCO) in low-earth orbit (LEO), cellular phone, and automotive markets.

- **Power IC/Bipolar-CMOS-DMOS (BCD)**

To meet the high power and low energy consumption demands of HPC, AI, and high-efficiency mobile devices, TSMC introduced a series of Bipolar-CMOS-DMOS (BCD) process technology solutions in 2024. 55nm BCD technology with new 5V components for products requiring both high power and low power consumption entered mass production. The second-generation 40nm BCD technology introduced new high-voltage components ranging from 5V to 28V to cover the needs of additional power management markets. Additionally, TSMC completed design certification of 5V power devices for 6nm FinFET technology, enabling the integration of RF power amplifiers and power management units onto a single chip for high-end RF power modules.

- **Micro-Electromechanical Systems (MEMS)**

In 2024, TSMC implemented qualified piezoelectric micro electromechanical systems (MEMS) technology for ultrasonic frequency in audio applications, which could be also used as active heat dissipation for high-performance chips. TSMC also developed a new generation high-voltage capacitive micromachined ultrasonic transducer (CMUT) to improve medical imaging quality. Future plans include the development of next-generation environmentally friendly piezoelectric technology.

- **Gallium Nitride (GaN)**

During 2024, TSMC continued development work on gallium nitride (GaN) transistors to maintain its leading position in this field. The Company successfully developed second-generation 650V and 100V enhanced high-electron-mobility transistor (E-HEMT) devices, which passed reliability testing. Notably, the second-generation 650V E-HEMT devices exhibit a static resistance degradation of less than 20% and meets the stringent specifications for automotive electronics, which signifies higher reliability. Production is expected to commence in 2025. Additionally, TSMC is actively developing an 8-inch 650V enhanced high-electron-mobility transistor, scheduled for production in 2026.

- **Display Drivers**

TSMC successfully mass-produced 28HV display-driver ICs (DDICs) for smartphones in 2024. In addition, to bolster its leading position in the field of high voltage display driver technologies, the Company is developing the world's first 16nm HV FinFET, with better performance and lower power usage to be used in next generation high-end mobile devices and AR/VR applications. It is expected that the customer product DDIC yield will be verified in 2025.

- **Complementary Metal-Oxide-Semiconductor Image Sensors**

TSMC had several accomplishments in this area in 2024. For automotive applications, with a newly developed Gen-3 3D-MiM storage capacitor (11 times capacitance boost compared to Gen-1), the lateral overflow integration capacitor (LOFIC) pixel exhibited a significant dynamic range improvement of 14dB. In parallel, a 3-wafer stacked backside illuminated process was transferred to manufacturing, offering high design flexibility with special-functions sensor and advanced node ISP (e.g., N22, N12) for die matching and a

cost-effective DTCO solution. In light detection and ranging (LiDAR) sensor development for both automotive and mobile applications, Gen-2 (7μm pitch) Si single photon avalanche diode (SPAD) process was readied for manufacture with a significant photon detection efficiency (PDE) improvement of three times higher compared to Gen-1. In addition, good progress was made in both the dark count rate (DCR) reduction and performance uniformity improvement in Ge/Si heterogeneous photodetectors, and the first ever room-temperature short-wave infrared radiation (SWIR) depth image (1310nm wavelength) was demonstrated.

• **Emerging Memory/Memory WoW Stacking Technology**
The Company reached several major milestones in emerging memory technologies in 2024. TSMC offered RRAM as a low-cost embedded non-volatile memory (NVM) solution for the price sensitive IoT market. The Company's 40nm, 28nm and 22nm nodes entered volume production and completed the technical qualification of 12nm consumer-grade RRAM, while 6nm node also entered development stage.

TSMC further developed a smaller and more energy-efficient 16nm MRAM cell with the same high-speed read/write capabilities but greater endurance of over one million read/write cycles, support for solder reflow, and excellent high-temperature data retention. This technology is expected to complete its technical qualification of the 16nm automotive grade in 2025. In response to market demand, TSMC also began developing the 12nm and 5nm nodes MRAM to meet future customer needs in automotive, smart sensor, and edge-AI applications.

The Company continued to develop wafer stacking (WoW) technology, creating a heterogeneous process platform for logic wafers and dynamic random-access memory. The Company made progress in the development of 55nm, 6nm, 4nm and 3nm logic wafers with single memory wafer stacking process technology. 55nm was the first to enter production with stable yields. TSMC will extend to advanced logic wafers (6nm, 4nm, 3nm) bonded with multi-wafers memory stacking to enable faster computing capabilities and higher memory bandwidth. WoW is suitable for AI chips and data center needs and can also be used in mobile phone chips and mining chips. This new memory architecture is compatible with advanced packaging technology, which is expected to satisfy a wide range of product applications and shorten product development times.

5.2.3 Technology Platform

TSMC provides customers with advanced technology platforms that include the comprehensive infrastructure needed to optimize design performance, power, area (PPA) and cycle times. These include electronic design automation (EDA) design flows, silicon-proven libraries and IPs, simulation and verification design kits, also known as PDKs, and technology files.

For the most advanced technologies such as 2nm, 3nm, 4nm and 3DFabric®, the Company provides certified EDA tools, features and IP solutions for customer adoption at various design stages to meet their product requirements. To help customers plan new product tape-outs incorporating library/IP from the Company's Open Innovation Platform® (OIP) ecosystem, there's a portal to connect customers to solution providers including 16 EDA partners, seven Cloud partners, 40 IP partners, 29 design center alliance (DCA) and eight value chain aggregator (VCA) partners, as well as 23 partners with 3DIC expertise in the new TSMC 3DFabric® Alliance.

5.2.4 Design Enablement

TSMC's technology platforms provide a solid foundation to facilitate the design process. Customers can design using the Company's internally developed IPs or use IPs and EDA tools available from TSMC's OIP partners.

Tech Files and PDKs
EDA tool certification, an essential element for IP and customer designs to ensure that features meet TSMC process technology requirements, can be found on TSMC-Online. Corresponding technology files and PDKs are available for customers to download and use with certified EDA tools. TSMC provides a broad range of PDKs for digital logic, mixed-signal, radio frequency (RF), high-voltage driver, CMOS image sensor (CIS) and embedded flash technologies from 0.5μm to 2nm. In addition, the Company provides technology files for design rule checking (DRC), layout versus schematic (LVS), resistance-capacitance (RC) extraction, automatic place and route, and a layout editor to ensure that process technology information is accurately represented in EDA tools. By 2024, TSMC had provided customers more than 52,000 technology files and 3,699 PDKs.

Library and IP
Silicon intellectual property (IP) is the basic building block of IC designs. Various IP types are available to support different customer design applications including foundation, analog/mixed-signal, embedded memory, interface and soft IP. TSMC

and its alliance partners offer customers a rich portfolio of reusable IPs, which are building blocks for many circuit designs. To support 3DIC customer needs, TSMC introduced 3DIC IP in 2019. By 2024, the company had expanded its library and silicon IP portfolio to contain more than 83,000 items, a 13% increase over 2023.

Design Methodology and Flow

Design reference flows are developed based on certified EDA tools to provide robust and comprehensive design methodology innovations that can help boost productivity. In 2024, TSMC released N2P HPC, mobile and custom design reference flows through OIP collaboration and announced their availability for customer adoption. In addition to process technology advancements, the company released the design reference flows for analog design migration 3.0, N16 to N6 RF design migration, and continued to develop and offer TSMC 3DFabric® design solutions for both 3D chip stacking and 2.5D advanced packaging technologies, including solutions supporting the 3Dblox standard, to reduce 3DIC design barriers, thus helping customers to improve productivity in their system-level designs. These design reference flows feature FinFET-specific and 3DFabric® design solutions to optimize PPA.

5.2.5 Intellectual Property

For a long time, TSMC has been protecting R&D innovation and operation development by way of utilizing patents and trade secrets as dual tracks under the established comprehensive IP management system, encouraging Company's innovation culture, and strengthening Company's competitive strengths so as to fulfill the Company's ESG vision. TSMC's General Counsel updates the Board of Directors on the status of the intellectual property management scheme.

TSMC's comprehensive patent management system includes: Patent management strategies, such as Global patent deployment, Exploratory invention mining, Patent portfolio expansion, and Patent exploitation and exercise; and Patent management rules, such as Tier-based IP evaluation, Patent competition rewards, Educational patent promotion, and Patent professional training. TSMC has established technological patent road maps by way of innovative patent strategy, strict management and risk-control measures; analyzed and monitored competitors by using intelligent patent maps; conducted core technology mining through invention workshops; expanded patent families on key technologies; filed and maintained patents by tier-based management, further enhanced patent protection through quality control on patent applications and continued to construct massive global patent portfolio with high quality; and, diversified exploitation of patent assets. In terms of patent filings, TSMC has accumulated more than 104,000 patent applications worldwide as of end of 2024, including more than 9,100 applications filed in 2024. TSMC ranked No. 2 among global U.S. patent applicants, and No. 1 among patent applicants in Taiwan. In terms of patent grants, TSMC has accumulated more than 69,000 patents worldwide as of end of 2024, including more than 6,700 global patents received. TSMC ranked No. 2 among U.S. Patentees, and No. 1 among patent patentees in Taiwan. In terms of patent quality, the allowance rate of TSMC's U.S. applications approached near 100%.

Turning to trade secret management and strategy, 10 years after TSMC pioneered the "Trade Secret Registration System" in 2013 and followed by the adoption of numerous intelligent management programmes, in light of the Company's global expansion as well as its efforts at realizing the four visions of innovation management: "IP Strategy, Competitive Advantage, Innovative Culture, and Sustainable Operations". In the following year of 2024, TSMC established the "Trade Secret Sustainable Intelligent Management Center" in pursuit of the comprehensive realization of visions of sustainable innovation and sustainable operations. Four new systems were introduced: the Intelligent Trade Secret Monitoring & Matching System, Trade Secret Registration Innovation Index Analytics System, Trade Secret Registration Intelligent Reminder System, and the Trade Secret Intelligent Management App. They are synergistically integrated with seven existing systems under six service categories: Intelligent Registration Integration, Intelligent Misappropriation Prevention & Monitoring, Intelligent Automated Services, Artificial Intelligence Utility, Green Trade Secret, and Charitable Sharing & Public Benefit. In particular, the "Trade Secret Innovation Talent Scouting Online Merge Offline Service", which was first introduced in 2023, saw its services expanded at Fab 12B, Fab 15A, and Fab 15B in 2024, saw 31 prior Golden Trade Secret winners as Golden Coaches personally mentor 102 prospective inventors and successfully resulted in 22 first time Golden Trade Secret winners, strengthening the company's sustainable innovative culture and competitive advantage, once again validated the feasibility of this novel initiative.

TSMC identifies and rewards impactful and high-quality innovations through the annual Golden Trade Secret Award ceremony, having presented 3,290 Golden Trade Secret Award out of 475,462 registered trade secrets between 2013 and 2024, demonstrating immense innovative drive and potential.

TSMC established the "Green Trade Secret Registration" column in 2021, and to date recorded a total of 1,872 registrations, including 559 registrations made in 2024 alone, demonstrating TSMC employees' continuous emphasis placed on Green Trade Secrets. Participating employees who registered for Green Trade Secrets span across multiple departments. On top of the Facility department, departments such as R&D and Manufacturing also participated enthusiastically in recording innovations contributing to sustainability, energy conservation, and carbon emission reduction, enriching the innovation diversity of Green Trade Secrets.

TSMC received a AAA (the highest tier) certificate by Taiwan Intellectual Property Management System (TIPS) from Industrial Development Administration, Ministry of Economic Affairs in December 2024 again, and the valid period will expire after December 31, 2027.

TSMC's IP team works closely with technical teams from R&D in early stage to mass production, and actively constructs IP portfolio for each key innovative technology, including the latest technology nodes, so as to ensure Company's technology leadership in semiconductor field; TSMC utilize patents and trade secrets as dual tracks to successfully protect Company's main business including process technologies, designs, manufacturing and sales, and have been strategically utilized for defense and cross-license negotiation, so as to secure freedom of business operation worldwide.

5.2.6 TSMC University Collaboration Programs

In recent years, TSMC has collaborated closely with several prestigious universities in Taiwan to carry out a variety of joint research projects. These collaborations encourage more university professors to conduct leading-edge semiconductor research in areas such as novel devices, process, materials manufacturing technologies, specialty technologies for electronic applications, and green manufacturing. At the same time, these projects provide hands-on training opportunities for students interested in these fields to prepare them for joining the semiconductor industry after graduation. Starting in 2013, TSMC established research centers at four top universities in Taiwan: National Yang Ming Chiao Tung University, National Taiwan University, National Cheng Kung University and National Tsing Hua University. In the past eleven years, a total of 374 professors and more than 4,700 students with backgrounds in the disciplines of electronics, electrical engineering, physics, materials, chemistry, chemical engineering, and mechanical engineering have joined the research centers. In 2022, TSMC also actively supported the establishment of semiconductor or key technology research academies at National Taiwan University, National Cheng Kung University, National Tsing Hua University, National Yang Ming Chiao Tung University, National Sun Yet San University, and National Chung Hsing University, providing continuous funding for forward-looking research in Taiwan's semiconductor field and planning scholarship programs to encourage students who are interested in the field. In 2019, the company jointly launched the TSMC-NTHU Semiconductor Program to enhance the quality and number of domestic semiconductor students and attract more outstanding students to a career in the semiconductor industry. By 2024, the list of school partners had grown to seventeen universities, including National Taiwan University, National Cheng Kung University, National Yang Ming Chiao Tung University, National Taipei University of Technology, National Taiwan University of Science and Technology, National Central University, National Sun Yet San University, National Chung Hsing University, National Chung Cheng University, Feng Chia University, Yuan Ze University, Chung Yuan Christian University, National Taiwan Normal University, National Yunlin University of Science and Technology, National Pingtung University of Science and Technology, and National Kaohsiung University of Science and Technology, with over 13,000 students enrolled to date. In addition, TSMC has long conducted strategic research projects with over 20 top overseas universities, such as Massachusetts Institute of Technology, Harvard University, Stanford University, National University of Singapore, University of Chicago, University of Toronto, University of California, Berkeley, University of Tokyo, University of California, Los Angeles, Nanyang Technological University and so on, focusing on innovative capabilities in transistors, interconnect, materials, device simulation and circuit design.

TSMC University Shuttle Program

The TSMC University Shuttle Program was established to provide professors at outstanding research universities worldwide with access to the reliable silicon process technologies needed to develop innovative circuit design concepts. In 2024, TSMC introduced its 7nm technology into ongoing industry-academia collaboration projects for the first time, allowing outstanding students to utilize excellent technology to realize innovations and foster closer cooperation between industry and academia. The University Shuttle Program provides access to TSMC silicon process technologies for digital and analog/mixed-signal circuits, RF designs, non-volatile memory design and ultra-low power designs.

TSMC and the University Shuttle Program participants enjoy win-win collaboration through the program, which allows graduate students to implement exciting designs and achieve silicon proof points for innovation in various end-applications.

5.2.7 Future R&D Plans

To maintain its technology leadership, TSMC plans to continue investing heavily in R&D. While its A16 and A14 advanced CMOS logic nodes are progressing through the development pipeline, the Company's exploratory R&D work is focused on nodes beyond A14, as well as on areas such as 3D transistors, new memories, and low-R interconnect. This work aims to lay a strong foundation to foster the development of innovative technology platforms in the future. TSMC's 3DFabric® advanced packaging R&D is developing innovations in subsystem integration to further enhance advanced CMOS logic applications. The Company maintains an intense focus on new specialty technologies such as RF and 3D intelligent sensors for 5G and smart IoT applications. TSMC's research continues to develop novel materials and new processes, devices and memories that may be adopted in the longer-term future of ten years and beyond. The Company also continues to collaborate with external research bodies from academia and industry consortia, aiming for early awareness and adoption of future cost-effective technologies and manufacturing solutions. With a highly competent and dedicated R&D team and an unwavering commitment to innovation, TSMC is confident in its ability to drive future business growth and profitability for years to come by delivering advanced, competitive semiconductor technologies to its customers.

Summary of TSMC's Major Future R&D Projects

Project Name	Description
2nm logic technology platform and applications	3D CMOS technology platform for SoC
A16 logic technology platform	3D CMOS technology platform for SoC
A14 and beyond logic technology platform and applications	3D CMOS technology platform for SoC
3DIC	Cost-effective solutions with better form factor and performance for 3DIC integration
Next-generation lithography	Next-generation EUV lithography and related patterning technology to extend Moore's Law
Long-term research	Specialty SoC technology (including new Emerging memory NVM, MEMS, RF, analog) and transistors with 8 to 10 years horizon

The projects above account for roughly 83% of the total R&D budget for 2025. Total R&D budget is estimated to be around 7% of 2025 revenue.

5.3 Manufacturing Excellence

5.3.1 GIGAFAB® Facilities

Maintaining reliable production capacity is a key manufacturing strategy at TSMC. The Company currently operates four 12-inch GIGAFAB® facilities – Fab 12, 14, 15 and 18. The combined capacity of the four facilities exceeded 12.74 million 12-inch wafers in 2024. Production within these facilities support 0.13μm, 90nm, 65nm, 40nm, 28nm, 16nm, 7nm, 5nm and 3nm process technologies and their sub-nodes. The GIGAFAB® facilities are coordinated by a centralized management system known as super manufacturing platform (SMP) to provide customers with consistent quality and reliability, greater flexibility to cope with demand fluctuations, and faster yield learning and time-to-volume production, as well as better-function and lower-cost product requalification.

In 2024, TSMC established 2nm advanced manufacturing facilities in Hsinchu and Kaohsiung, and expanded advanced packaging capabilities in Chiayi and Tainan. These efforts help clients accelerate innovation to meet the rapidly changing market challenges and satisfy greater demand brought by the growth of AI. Besides, to better serve the needs of global customers, TSMC has made significant progress at several overseas production sites, such as those in Arizona, U.S., and Kumamoto, Japan, enhancing the maturity and stability of its global operations.

5.3.2 Engineering Performance Optimization

As advanced technology continues to evolve and IC geometry keeps shrinking, the need for tighter manufacturing process and quality control becomes extremely challenging. TSMC has tailored its manufacturing infrastructure to handle a diversified product portfolio that uses strict process control to meet tightened specs and higher product quality, performance and reliability requirements from customers. TSMC's process control systems are integrated with numerous intelligent functions to achieve excellence in both quality and manufacturing. Through intelligent detection, smart diagnosis, and cognitive action, the Company produces remarkable yield enhancement, quality assurance, workflow improvement, fault detection, and cost reductions, while shortening its R&D cycle.

To meet AI's stricter quality requirements for mobile, high performance computing (HPC), automotive and the Internet of Things (IoT), TSMC is implementing artificial intelligence (AI) and machine learning technologies, and has developed systems for precise fault detection and classification, intelligent advanced equipment control and intelligent advanced process control to ensure the consistency of tool matching and process stability. Combining intelligent process variation detection and engineering analysis with foundry know-how to identify potential defects and minimize the convergence of process variation through self-diagnosis and cognitive action. As the result, each chip can be precisely controlled at the nanometer level to produce the highest quality wafers for customers.

In 2024, TSMC extended its intelligent manufacturing systems from the front-end fabs to the back-end fabs. This ensured significant improvements in product quality, product production cycle and machine productivity across all production stages, from wafer to die packaging.

5.3.3 Agile and Intelligent Operations

The Company's intelligent operating system drives manufacturing excellence. Intelligent manufacturing technologies are widely applied to lean manufacturing, employee productivity, equipment productivity, process and equipment control, quality defense, and robotic control to optimize quality, productivity, efficiency, flexibility, and accelerated innovation. TSMC has also integrated new applications such as intelligent mobile devices, IoT, edge computing, and mobile robot, with automated material handling systems (AMHS), which was successfully expanded to serve and connect multiple mega fabs, bringing higher efficiency and stability to the production process, significantly enhancing overall capacity. Furthermore, TSMC actively collaborated with global supply chain partners to ensure that production standards and service quality met global consistency and further utilizes advanced artificial intelligence algorithms to optimize the learning curve of cutting-edge process technologies. This accelerates innovation in process control techniques, achieving convergence of variations to atomic-level precision, thereby further solidifying and expanding TSMC's competitive edge over competitors.

5.3.4 Digital Excellence

To meet strong pent-up demand from customers, TSMC continues to implement technology to transform the "automated fab" into the "intelligent fab," with the simultaneous improvement of product quality, equipment capacity, and personnel effectiveness. Intelligent fab has integrated the domain knowledge of semiconductor manufacturing, enabled system self-learning, and expanded the application of AI and machine learning, which includes dispatching, equipment tuning, process control, equipment diagnosis and maintenance, and quality inspection. This frees today's engineers to focus on problem solving. TSMC is actively applying Generative Artificial Intelligence (Generative AI) technology, combining it with years of accumulated semiconductor manufacturing experience. Through digital collaboration between personnel and AI, the company strives to enhance work efficiency and quality. Looking ahead to the future, all manufacturing improvement plans and productivity enhancements within the fab can be synchronized across global fabs through the Global Manufacturing and Digital Workflow Management Platform, which supports multiple languages. Furthermore, by utilizing cloud management and more flexible and efficient collaborative operation models, TSMC achieves consistency in operational efficiency and manufacturing quality across multiple sites, realizing the goal of global integrated manufacturing.

5.3.5 Raw Materials and Supply Chain Management

In 2024, in collaboration with various fab operations, quality management, and related business units, TSMC continued to work hand in hand with suppliers to review and resolve issues related to capacity shortages, quality defects, and potential supply chain risks. Additionally, TSMC and its suppliers are committed to the development of advanced materials, process innovation, quality improvement, and supply chain energy conservation and carbon reduction, with the aim of promoting the development of a sustainable supply chain and achieving mutually beneficial outcomes.

Raw Materials Supply

Major Materials	Major Suppliers	Market Status	Procurement Strategy
Raw Wafers	A Company B Company C Company D Company E Company	Supply and demand equilibrium	•TSMC's suppliers of silicon wafers are required to pass stringent quality certification procedures. •TSMC procures wafers from multiple sources to ensure adequate supplies for volume manufacturing and to appropriately manage supply risk. •Raw wafer quality enhancement programs are in place to support TSMC's technology advancement. •TSMC regularly reviews the quality, delivery, cost, sustainability and service performance of its wafer suppliers. The results of these reviews are incorporated into subsequent purchasing decisions. •A periodic audit of each wafer supplier's quality assurance system ensures that TSMC can maintain the highest quality in its own products. •TSMC takes various approaches with suppliers to optimize cost and supply.
Chemicals	F Company G Company H Company I Company J Company	Supply and demand equilibrium	•Most suppliers have located their new operations closer to TSMC's major manufacturing facilities, thereby improving procurement logistics and reducing supply risk. •All supplied products are regularly reviewed to ensure that TSMC's specifications are met and product quality is satisfactory. •In order to effectively manage costs and supply chain, TSMC has collaborated with suppliers and adopted various strategies. •TSMC encourages and collaborates with chemical suppliers to implement innovative green manufacturing improvement programs.
Lithographic Materials	K Company L Company M Company N Company O Company	Supply and demand equilibrium	•TSMC works closely with suppliers to develop materials that meet all application and cost requirements. •TSMC and suppliers periodically conduct programs to improve their quality, delivery, sustainability and green policies, and jointly set improvement programs and monitor progress to ensure continuous improvement in TSMC's supply chain.
Gases	P Company Q Company R Company S Company T Company	Supply and demand equilibrium	•The majority of these suppliers have facilities in multiple geographic locations, which minimizes supply risk for TSMC. •TSMC conducts periodic audits to ensure that these suppliers meet TSMC's standards.
Slurry, Pad, Disk	U Company V Company W Company X Company Y Company	Supply and demand equilibrium	•TSMC works closely with suppliers to develop materials that meet all application and cost requirements. •TSMC and suppliers periodically conduct programs to improve their quality, delivery, sustainability and green policy, and jointly set improvement programs and monitor progress to ensure continuous improvement in TSMC's supply chain. •Most suppliers have relocated or plan to establish new manufacturing sites closer to TSMC's major manufacturing facilities, thereby improving procurement logistics and reducing supply risks.

Suppliers Accounting for at Least 10% of Annual Consolidated Net Procurement in 2024 and 2023

Unit: NT$ thousands

Supplier	2024			2023		
	Procurement Amount	As % of 2024 Total Net Procurement	Relation to TSMC	Procurement Amount	As % of 2023 Total Net Procurement	Relation to TSMC
Company A	19,640,121	21%	None	17,763,637	20%	None
Company B	18,225,314	19%	None	17,862,380	20%	None
Others	57,754,619	60%	-	53,109,061	60%	-
Total Net Procurement	95,620,054	100%	-	88,735,078	100%	-

• **Reason for Increase or Decrease:** No significant change.

5.3.6 Quality and Reliability (Q&R)

TSMC strives to offer excellence in semiconductor manufacturing services to all its customers worldwide. The Company is dedicated to providing outstanding quality in every facet of its business and maintains a culture of continuous improvement to assure customer satisfaction. TSMC implements containment and preventive measures to protect customers from potential product defects.

In the technology development stage, the Q&R organization helps customers design in superior product reliability. In 2024, Q&R worked continuously with R&D in advanced logic, specialty and advanced packaging technologies throughout development and qualification stages to ensure meeting commitments to customers with respect to device characteristics, process yield and product reliability.

For advanced logic technology, following the successful mass production of the 3nm and its enhanced version N3E FinFET technology, Q&R also successfully completed the process technology and product quality and reliability certification for the performance-enhanced version N3P. For specialty technologies, Q&R successfully qualified CIS 3-wafer stacking product reliability certification for mass production and completed the qualification of 28nm high-performance mobile computing embedded RRAM technology for automotive grade-1. Regarding advanced packaging technology, TSMC integrates front-end wafer processing with back-end chip packaging to provide advanced packaging solutions. In 2024, Q&R completed certification for CoWoS® technology with larger interposer sizes and initiated mass production. It also completed the first System on Wafer certification and mass production, readying its advanced packaging technology platform for applications in AI and HPC. As for InFO_PoP technology, the Company's mass produced 3nm chips achieved higher efficiency and lower power consumption for mobile devices.

To continuously reduce product defects, enhance process controls, facilitate early detection of abnormalities and prevent quality problems in general, Q&R collaborates with other operational entities to improve real-time defense systems using advanced AI to continuously optimize quality tools through statistical methods. Q&R and the Company's fabs have also worked together on enhancements for automotive product quality improvement, including design rule implementation and migration to Automotive Quality System 2.0. This covers process capability requirements to tighten in-line and wafer acceptance testing in fabs and the handling of maverick wafers. Q&R also provides dedicated resources for field/line return analysis and timely physical failure analysis (PFA) for process improvement to meet automotive customers' stringent defective parts per million (DPPM) requirements.

Q&R successfully completed a series of digital transformation development tasks, applied in areas such as raw material management, statistical process control (SPC), metrology, automatic defect detection and classification, and laboratory analysis. By leveraging advanced digital technologies and platforms, TSMC achieved its digital transformation targets. Moreover, during the initial phase of overseas expansion, Q&R addressed the challenges of personnel training, remote management, and support through digital transformation. This facilitated successful remote management, achieving zero distance and zero-time difference in quality management across global fabs. In 2025, Q&R will continue to promote the development of quality management methods and professional training and apply AI technologies to consolidate TSMC's comprehensive competitive advantages in this industry.

Q&R's supply chain management strategy covers four core areas: quality excellence, supply chain responsibility, green manufacturing and operational sustainability. In addition to using professional expertise and best-known methods to assist suppliers in making improvements, Q&R's state-of-the-art chemical lab monitors the quality of raw materials and helps the R&D achieve breakthroughs in advanced materials, improving product and process yields. The lab also guides material suppliers in setting standards for the use of internationally concerning hazardous substances (such as carcinogens, reproductive mutagens, and teratogens), and performs classification and sampling to manage potential risks in raw materials. Additionally, Q&R collaborates with the material supply chain management division to assist suppliers in expanding the production capacity of high-quality raw materials. This collaboration has successfully established new production lines overseas that meet quality standards, thereby building a robust raw material supply chain. This effort not only enhances the industrial competitiveness of TSMC and its supply chain but also achieves a win-win strategy that balances quality and capacity.

Q&R assisted suppliers in developing recycling projects and successfully improved the quality of several recycled chemicals to achieve an electronic grade quality level in 2024. Q&R collaborates with operations to expand engineering verification for recycled chemicals, meeting TSMC's quality requirements

and environmentally friendly sustainability goals. Q&R is also committed to the continual improvement of local supply chains and developing local talent. In 2024, TSMC again collaborated with SEMI (Semiconductor Equipment and Materials International) to hold the sixth Strategic Materials Conference (SMC) in Taiwan and invited domestic and overseas members to share the most advanced material technology, to motivate talented personnel and elevate the international competitiveness of the local supply chain.

To promote employees' problem-solving skills and develop related quality systems and methodologies, TSMC fully supports continuous improvement programs and initiates several Company-wide symposia and training programs. To strengthen TSMC's quality culture, Q&R began offering quality culture courses for new employees in 2022. These courses help new employees establish the correct quality values and accelerate the integration and adaptation to their roles. In addition to internal cross-organizational learning and exchange, TSMC participates in the Taiwan Continuous Improvement Award (TCIA) to promote the development of other local industries by sharing its experiences. In 2024, TSMC's outstanding performance was recognized with eight gold, one silver and three "best improvement and innovation" awards. Meanwhile, Q&R encouraged local material suppliers to participate in the TCIA program for capability and quality culture enhancement, and they won a total of three gold, three silver, and six bronze medals in 2024.

Thanks to qualification in technology development, real-time defense systems and innovative applications in semiconductor manufacturing services, as well as its continuous quality improvement culture, TSMC had no product recalls initiated by customers due to safety concerns in 2024. Meanwhile, a third-party audit verified the effectiveness of the Company's quality management systems in compliance with IATF 16949: 2016 and IECQ QC 080000: 2017 requirements. In 2024, TSMC's backend fabs also continually passed the certification of American National Standards Institute ANSI/ESD (electrostatic discharge) S20.20 standard. Regular customer feedback indicates that products shipped from TSMC have consistently met or exceeded all field quality and reliability requirements. In these ways, TSMC helps customers improve time-to-market delivery and competitiveness with excellent, reliable products for the major growth markets that the Company serves: HPC, smartphones, IoT, automotive, and digital consumer electronics.

5.4 Customer Trust

5.4.1 Customers

TSMC has customers with wide-ranging product portfolios who are top-tier in each sector within the semiconductor industry from all over world, including fabless semiconductor companies, system companies, and integrated device manufacturers.

Customer Service

TSMC is committed to providing customers with the highest quality service. The Company believes that excellent customer service is key to maintaining and improving customer satisfaction, solidifying existing customers, and attracting new customers. To this end, TSMC has established a dedicated customer service team to act as the primary contact window, facilitating seamless communication and coordination with customers in areas such as product design, mask making, wafer manufacturing, and 3DFabric® technology services, ensuring world-class service every step of the way. TSMC is committed to continuously improving customer satisfaction, earning customer trust, maintaining sales and profitability, and solidifying its role as one of the most reliable partners.

To improve customer interaction on a real-time basis, TSMC-Online offers a suite of web-based applications to provide more proactive customer service and support in design, engineering and logistics. Customers thus have 24-7 access to critical information. TSMC-Online facilitates design collaboration by maintaining data availability and accessibility and providing customers with accurate up-to-date information at each stage of the design process. Engineering collaboration focuses on wafer, and 3DFabric® processes, yield and wafer acceptance test analysis, as well as data quality and reliability. Logistics collaboration includes information on wafer fabrication, advanced packaging, testing, and transportation. In addition, customers can generate customized reports through TSMC-Online to meet their system automation needs.

Customer Satisfaction

To ensure customer satisfaction, TSMC must fully comprehend its customers' needs. To this end, the Company works with third-party consulting firms to conduct annual customer satisfaction surveys (ACSS) with the majority of existing customers, either via online surveys or in direct interviews. In addition to the survey, TSMC also conducts quarterly business/technical reviews (QBR/QTR) with customers to collect their feedback on a regular basis. Customer feedback is routinely

reviewed, analyzed and used to develop appropriate improvement plans, all in all becoming an integral part of the customer satisfaction process. Through surveys and feedback reviews, TSMC is able to closely interact with customers, provide better services, and enhance the quality of customer collaboration.

Customer Information Protection

TSMC complies with applicable regulations and international standards to protect customer information and has received ISO 27001 international information security certification. In addition, relevant proprietary information protection policies and standard work processes are also established to ensure only authorized personnel can access the engineering and production data of any specific customer.

Customers Accounting for at Least 10% of Annual Consolidated Net Revenue in 2024 and 2023

Unit: NT$ thousands

Customer	2024			2023		
	Net Revenue	As % of 2024 Total Net Revenue	Relation to TSMC	Net Revenue	As % of 2023 Total Net Revenue	Relation to TSMC
Customer A	624,345,477	22%	None	546,550,925	25%	None
Customer B	352,271,213	12%	None	N/A	N/A	None
Customer C	N/A	N/A	None	241,152,357	11%	None
Others	1,917,691,009	66%	-	1,374,032,559	64%	-
Total Net Revenue	2,894,307,699	100%	-	2,161,735,841	100%	-

- **Reason for Increase or Decrease:** The changes of sales amount and percentage were mainly due to customer product demand change.

5.4.2 Open Innovation Platform®

At TSMC, innovation has always been an exciting challenge. Competition continues to intensify in the face of increasing industry consolidation and the commoditization of technology at more mature, conventional levels, and thus semiconductor companies must find ways to keep innovating in order to survive and prosper. One way to promote innovation is through active collaboration with external partners. At TSMC this is known as Open Innovation®, an "outside in" approach to complement traditional "inside out" methods. TSMC has chosen this path to stimulate innovation via its OIP initiative, which is a key part of the TSMC Grand Alliance.

The OIP initiative is a comprehensive design technology infrastructure that encompasses all critical IC implementation areas to lower design barriers and improve design cycle times and first-time silicon success rates. OIP promotes the speedy implementation of innovation within the semiconductor design community and its ecosystem partners using TSMC's process technology and OIP partners' solutions in design implementation and backend services.

Crucial to OIP are ecosystem interfaces and collaborative components initiated and supported by TSMC to empower innovation throughout the supply chain and, in turn, drive the creation and sharing of new revenue and profits. TSMC's active accuracy assurance (AAA) initiative is key to OIP, providing the precision and quality required by the ecosystem interfaces and collaborative components.

TSMC's Open Innovation® model brings together the creative thinking of customers and partners under the common goal of shortening each of the following: design time, time to volume production, time to market and, ultimately, time to revenue. The model features:

- The foundry segment's earliest and most comprehensive electronic design automation (EDA) certification program, delivering timely design tool enhancement required by new process technologies.
- The foundry segment's most comprehensive and robust silicon-proven IP (intellectual properties) and library portfolio.

- Alliance that enables semiconductor designing in the Cloud for the benefit of scalability, agility and flexibility to meet various customer requirements for work models.
- Alliance that provides design services to support customer demand regarding resources and capabilities, depending on the scope and various requirements in the semiconductor design stages and value chain.
- Alliance to enables customers' system-level designs for integrating multiple chips/chiplets in 3D stacking and advanced packaging.
- Participants consisting of 16 EDA partners, seven Cloud partners, 40 IP partners, 29 design center alliance (DCA) partners, eight value chain aggregator (VCA) partners and 23 partners in the new TSMC 3DFabric® Alliance.
- A partner management portal to facilitate communication with ecosystem partners for efficient business productivity – designed with a highly intuitive interface and accessible via a direct link from TSMC-Online.

TSMC and partners work together proactively and engage much earlier and deeper than ever before in order to address the mounting design challenges of advanced technology nodes. Through this early and intensive collaboration, OIP is able to deliver the needed design infrastructure with timely enhancement of EDA tools, early availability of critical IPs and quality design services when customers need them. Taking full advantage of the process technologies once they reach production-ready maturity is critical to customer success. Hence, this helps achieve DTCO among TSMC process technologies, OIP design solutions and customer product designs.

The 2024 annual OIP Ecosystem Forum in North America demonstrated how TSMC and its ecosystem partners jointly develop design solutions on top of TSMC's advanced technologies through OIP. At the forum, TSMC made key presentations on its comprehensive 2nm technology family and TSMC A16™ that continue the full-node PPA scaling trend, together with the offering of high-density and high-performance libraries and design solutions to support smartphone and high-performance computing (HPC) design applications. The Company also made presentations on the readiness of analog cells that can help boost analog IP yields and analog design productivity, with the design solutions to enable EDA and design flow automation to support analog design migration. In response to the rising demand for more complex system level designs, TSMC collaborates with TSMC 3DFabric® alliance partners of 3DIC expertise in EDA, IP, DCA/VCA, memory, substrate, outsourcing semiconductor assembly testing (OSAT) and testing to provide 3D chip stacking and 2.5D advanced packaging design solutions, together with EDA tools compliant to the 3Dblox® open standard to facilitate integration of multiple chips/chiplets in system-level designs using 3DFabric® technology services which include TSMC-SoIC®, InFO and CoWoS®. The availability of the aforementioned design ecosystem solutions helps customers successfully pursue opportunities in all major markets: HPC, smartphones, the Internet of Things (IoT), automotive and digital consumer electronics.

5.5 Information Security Management

5.5.1 Information Security Policy and Organization

TSMC is committed to information security and confidentiality protection for its customers, shareholders, and partners. To this end, the Company has formulated, implemented and regularly updated rigorous cybersecurity policies, procedures and measures as reflected in TSMC's Information Security Declaration.

In 2022, following the regulations of the Financial Supervisory Commission of Taiwan, TSMC appointed J.K Lin, Senior Vice President of Information Technology, Material and Risk Management, to take on the addition role of Chief Information Security Officer (CISO). Starting from 2025, TSMC appointed Cliff Hou, Senior Vice President and Deputy Co-COO as CISO, who is responsible for the overall planning and coordination of Company resources, communicating on information security policies and directions. TSMC has established a dedicated corporate information security (CIS) organization, led by Director James Tu, to be responsible for the implementation, planning, monitoring, and management of information security. In 2024, in response to TSMC's global expansion, the organization was renamed Global Security Management (GSM) to integrate and enhance corporate security management. TSMC has also established the PIP and Risk Committee and the IT Security Committee to cooperate with the Company's information technology and related organizations to strengthen corporate information security protection and management mechanisms. Both committees are chaired by the CISO and comprise VP-level executives who meet regularly to review and deliberate on important information security policies as well as project implementation. Every six months, GSM executives report risk management measures to the Audit and Risk Committee, including global information security trends, corporate information security policies, plans, and implementation results. The chair of the Audit and Risk Committee also reports on the effectiveness of information security supervision and risk control measures to the Board of Directors.

Global Security Management Organization Structure

5.5.2 Information Security Management Strategy and Resources

To achieve TSMC's information security goals and maintain competitiveness, the corporate information security organization actively strengthens security and confidential information protection mechanisms. GSM sets clear policy, procedures and guidelines and continuously enhances the Company's management systems and implements comprehensive risk controls. In addition, GSM regularly performs information security risk assessments and sets priorities based on the impact and probability of a risk, as well as the cost of reducing such risk. GSM uses the plan-do-check-act (PDCA) methodology to continuously enhance multi-layer information security defenses and establish key performance indicators (KPIs) for information security. In 2024, TSMC invested in excess of NT$1 billion to strengthen information security, involving more than 800 employees for information security-related activities, with more than 1,000 external security personnel engaged in the physical aspects of information security services.

5.5.3 Information Security Incident Handling and Notification

TSMC has established enterprise risk management mechanisms and procedures to handle information security incidents. The mechanisms and procedures define relevant processes and measures for incident notification, designation of personnel responsible for handling material information security incidents, and assessment of losses suffered as well as additional measures needed, evaluation of information security risks to the Company's financial and operations, and proposed countermeasures to mitigate these risks. In 2024 and as of the date of this Annual Report, TSMC has not suffered any financial losses nor experienced any operational impact due to material information security incidents.

5.6 Human Capital

Human capital is TSMC's most treasured asset. The Company strives to provide employees with meaningful work, continuous learning, a healthy and inclusive workplace, and high-quality compensation and benefits. TSMC goes beyond this by actively encouraging employees to nurture and enjoy a healthy family life, develop personal interests, expand social participation, and, in general, live a happy life.

5.6.1 Human Rights Policy and Specific Actions

TSMC strongly believes that respecting human rights and promoting a decent work environment are vitally important. The Company is committed to supporting the international human rights standards while complying with local laws in all operating locations, treating and respecting all personnel equally. The TSMC Human Rights Policy applies to the management team and all employees (those employed by TSMC and receiving wages or compensation), affiliated enterprises, suppliers, contractors, partners (including customers and communities), and other stakeholders committed to eliminating any human rights violations.

Management Principles

- **Human Rights Governance Structure**

TSMC has established a human rights governance structure with the Board of Directors at the highest level. The ESG Committee has established a cross-department human rights task force, encompassing Customer Service, Corporate Sustainability, Environmental Safety and Health, Human Resources, Information Technology, Corporate Information Security, Materials Management, Legal, Operations, Quality and Reliability, Research and Development and other functional organizations to systematically and effectively promote human rights management activities. In addition to regularly reporting progress to the ESG Steering Committee, the chairperson of the ESG Committee reports to The Nominating, Corporate Governance and Sustainability Committee under the Board of Directors on human rights management actions and implementation results.

- **Due Diligence**

TSMC follows the recommendations of the OECD Due Diligence Guidance for Responsible Business Conduct to carry out the Company's due diligence process. TSMC conducts

the due diligence process by embedding responsible business practices into its policies and management systems, regularly identifying and assessing risks, implementing prevention and mitigation measures, and tracking mechanisms.

- **Training and Advocacy**
TSMC develops human rights protection training to establish awareness and develop a culture of respecting human rights. Through such training, the Company informs employees about human rights concepts and their importance, accessible grievance channels to all, and TSMC's measures for the management, prevention, and remediation of human rights violations.

- **Grievance Channels**
TSMC establishes robust grievance and communication channels and commits to protecting complainants. Potential human rights violations can be reported anonymously or through multiple communication mechanisms to provide concerns or suspected violations to TSMC, and the Company will initiate corresponding measures.

- **Remediation**
Once a human rights violation caused or contributed to by TSMC is identified, the Company will initiate a remediation mechanism based on the type of incident and, if necessary, cooperate with relevant stakeholders to prevent recurrence.

- **Communication and Disclosure**
TSMC identifies affected individuals on a case-by-case basis based on salient human rights issues to build a solid, trusting relationship, and listens to the voices of stakeholders through diverse, open, and two-way communication channels. The Company regularly discloses human rights management goals, actions, performance, and progress on the Company's ESG website, Sustainability Report, and Human Rights Report.

In 2024, the Company used the Responsible Business Alliance's Self-Assessment Questionnaire (SAQ) to identify the greatest risks regarding labor, health and safety, environment, and ethics matters and to formulate substantive actions and managerial response. The SAQ scores of each of TSMC's operating fabs in Taiwan were in the low-risk range, defined as 80 points or above.

TSMC conducted multiple human rights protection training sessions in 2024, encompassing a range of topics to ensure a safe and respectful workplace. The training included areas such as workplace safety and health, emergency response procedures, first aid training, fostering a friendly work environment, and anti-harassment training. The total training hours are 191,983 hours, and a total of 79,610 employees have completed the training, accounting for 95% of employees. To further promote human rights, TSMC offered a course called "Build a Zero Tolerance Harassment Workplace Environment Say NO to Sexual Harassment." 69,051 employees completed this training, and the passing rate of the post-training test was 100%.

TSMC abides by laws and regulations and respects the freedom of collective consultation and assembly and association of all employees. The Company will not interfere or intervene with these activities. TSMC holds Silicon Garden meetings, aka Labor-Management meetings, on a regular basis, listens to employees' opinions and makes timely and appropriate responses through a diversified and comprehensive internal communication framework, in order to strengthen the communication between the Company's management team and employees and ensure harmonious employee relations.

5.6.2 Inclusive Workplace

TSMC is dedicated to solving some of the world's most complex technological challenges to accelerate innovations around the world. This requires a culture that encourages contributions from all employees, at every level, in any role, regardless of their background or identity. Building an inclusive workplace reflects TSMC's core values and business philosophy. Through actively establishing the open-style management system, the Company encourages diverse talents to join the semiconductor industry.

To realize TSMC's People Vision of fostering an inclusive environment, the Company focuses on three endeavors: providing inclusive experience throughout employee lifecycle, supporting diverse talents through employee resource groups (ERGs), and connecting with external resources and partners. At every stage of employees' lifecycle, TSMC constantly examines the procedures and policies to ensure recruitment channels and development opportunities are in place for the diverse talents. In 2024, TSMC hosted its second inclusive workplace series campaign in hope to foster empathy and allyship for diverse talents. Furthermore, TSMC also launched programs on inclusive workplace champions at its headquarters to encourage employees to take actions through continual participation in inclusive workplace initiatives. To support diverse talents, TSMC has established four ERGs: Women@tsmc, Global Family@tsmc, Accessibility@tsmc, and Veterans@tsmc (exclusively in the U.S.) to focus on the areas of gender, race/nationality, disability, and U.S. protected veterans.

ERGs are open to all employees, regardless of whether they possess the relevant identity, allowing employees to participate and show their support, aiming to enhance their sense of belonging. As for connecting with external resources, TSMC benchmarks with international standards and establishes partnerships with professional organizations to ensure alignment with global best practices. Our external partners include global organizations such as Global Semiconductor Alliance (GSA) and Disability:IN.

At the same time, TSMC also developed a learning structure and core training courses by job levels for all employees. The aim is to help employees understand the essence of inclusion, help them be mindful of any unconscious biases, cultivate their ability to identify and respond appropriately to biases while enhancing their awareness of this topic.

5.6.3 Workforce Structure

At the end of 2024, TSMC had 83,825 employees worldwide, including 8,737 managers, 40,477 professionals, 10,207 assistants and 24,404 technicians. The following two tables summarize the makeup of TSMC's workforce and the female portion of management as of the end of February 2025:

Workforce Structure

		12/31/2023	12/31/2024	02/28/2025
Job	Managers	7,861	8,737	8,920
	Professionals	36,807	40,477	41,139
	Assistant Engineer/Clerical	9,235	10,207	10,469
	Technicians	22,575	24,404	24,606
Total		76,478	83,825	85,134
Gender	Male	65.8%	66.3%	66.4%
	Female	34.2%	33.7%	33.6%
Education	Ph.D.	3.9%	3.7%	3.7%
	Master's	47.7%	48.5%	48.6%
	Bachelor's	29.5%	29.9%	29.9%
	Other Higher Education	8.0%	7.5%	7.4%
	High School	10.9%	10.5%	10.4%
Average Age		36.2	36.2	36.2
Average Years of Service		8.7	8.7	8.7

Female Ratio in Management

	12/31/2023	12/31/2024	02/28/2025
Female Ratio in Junior Management	14.3%	15.0%	15.1%
Female Ratio in Senior Management	13.7%	14.0%	14.1%
Female Ratio in Top Management	5.9%	11.4%	10.8%

Note: Junior management positions include first-line managers; top management positions include vice presidents and higher as well as the CEO.

5.6.4 Recruitment

Sharing a common vision and values by the Company's employees is key to TSMC's growth and success. TSMC is an equal opportunity employer and is committed to searching and hiring top-notch professionals in all positions through open and fair recruitment processes. In addition to prioritizing integrity and ability as the primary conditions for employment, the Company also considers suitability for the position, evaluating all candidates equally regardless of gender, age, disability, religion, race, ethnicity, nationality, political affiliation, or sexual orientation.

TSMC adheres to its core values and continues to move towards its lofty vision. To ensure the talent it needs for the continuous growth, the Company has expanded its recruitment channels to attract top-notch professionals in all positions and employed over 10,000 people worldwide in 2024.

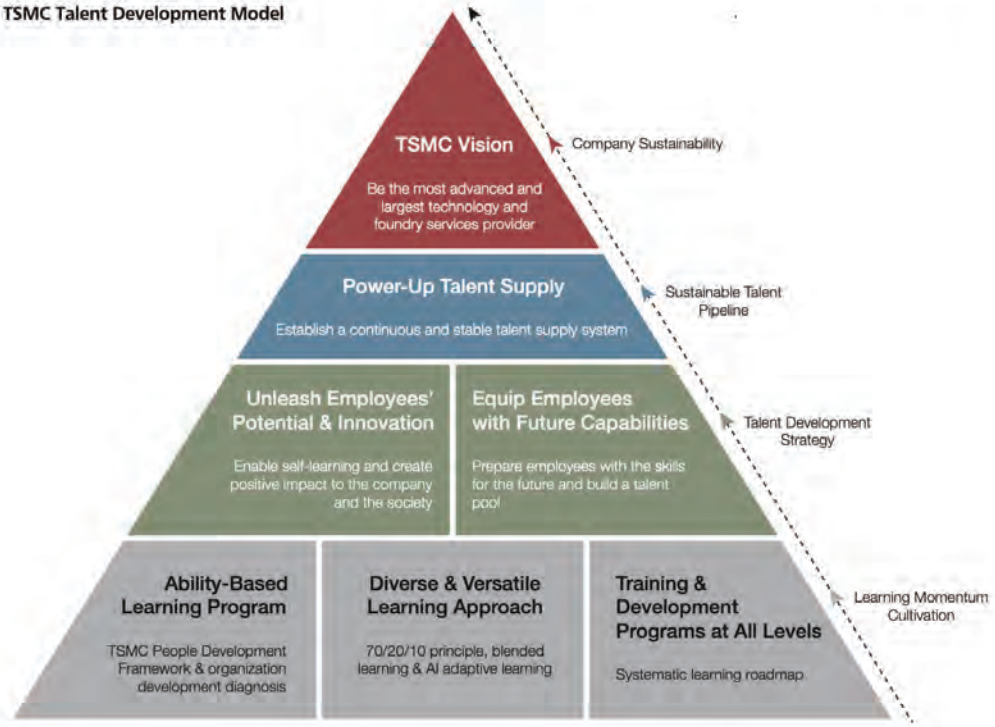
5.6.5 People Development

TSMC is committed to realizing its People Vision by inspiring passion and enabling employees to perform their best in the workplace. This, in turn, helps establish a continuous and stable talent supply system, ensuring the Company's sustainable growth. To achieve People Vision, TSMC has developed the "TSMC Talent Development Model" as the cornerstone, which emphasizes two strategies: (1) unleashing employees' potential and innovation, i.e. encouraging and enabling self-learning and continuous innovation to create a positive impact on the Company and society, and (2) equipping employees with future capabilities, i.e. preparing employees with the skills for future work and building a talent pool.

Following the two strategies, TSMC has initiated ability-based learning programs. In addition to focusing on the core attributes – character, perseverance, resilience, initiative, innovation, decisiveness and judgment, broadness of mind and breadth/depth of knowledge, the Company also develops leadership, professional and general skills according to colleagues' different positions and the needs of the Company's organization. Meanwhile, TSMC offers diverse

and versatile learning approaches such as 70% experiential learning, 20% feedback and guidance, 10% education and training, blended learning, and future AI adaptive learning. These approaches are integrated with training and development programs at all levels, systematically cultivating the capabilities required by all employees, thereby supporting employees and TSMC in achieving continuous growth and breakthroughs.

TSMC Talent Development Model



In 2024, TSMC offered 10,038 in-person courses (including face-to-face and live online), and 35,596 online resources (including internal and external learning platforms), providing over 8.42 million hours of training with a total in excess of 3.5 million participants. The average annual training time per employee grew to 100.5 hours, an increase of 17.7% over the previous year. TSMC training expenses reached NT$1.1 billion in 2024 and the average training cost per employee was approximately NT$13,395, a 15.4% increase over the previous year. (Note)

5.6.6 Competitive Overall Compensation

In order to develop the most effective compensation strategies, TSMC reviews and selects benchmark companies annually and collects market information on compensation data of the whole industry for competitiveness analysis.

TSMC's compensation program includes a monthly salary, performance bonuses based on quarterly business results, and profit sharing based on annual results.

Note: In order to align the definition of training expenses with international market research information (as in *Training* magazine) to include total training spending, outside products and services, and training staff payroll, starting in 2022 the Company began including training staff payroll in annual training expenses.

The purpose of the business performance bonus and profit sharing programs is to reward employee contributions appropriately, to encourage employees to work consistently toward ensuring TSMC's success, and to align employee interests with those of TSMC's shareholders so as to achieve win-wins for the Company, shareholders and employees alike. The Company determines the bonus and profit sharing amounts based on operating results and domestic industry practice. The amount and distribution of the employee bonuses are recommended by the compensation and people development committee to the Board of Directors for approval. Individual rewards are based on each employee's job responsibility, contributions and performance.

A similar approach is used in TSMC's compensation programs at subsidiaries. In addition to providing employees with a locally competitive base salary, annual bonuses are granted as a part of total compensation, in line with local regulations, market practices and the overall operating performance of each subsidiary.

In addition to the competitive compensation described above, the Company established a global employee stock purchase plan in 2022, which is available to all regular employees of TSMC and its wholly owned subsidiaries, and in 2024, extended the coverage to majority-owned subsidiaries as well. Through this plan, employees are encouraged to participate in the Company's long-term success.

To strengthen the link between TSMC managers and shareholders' interests, the Company established corporate officer shareholding guidelines in 2020. The required holding value of TSMC shares by the chairman, CEO, and corporate officers is proportional to their annual base salary: 18 times for the chairman and CEO, nine times or three times for officers (three times only for officers hired in overseas). Officers must reach the required value within three years of appointment and maintain it for the entire period of employment. Furthermore, to attract and retain corporate executives and other critical talent and to link their compensation with shareholder interests and environmental, social, governance (ESG) achievements, TSMC established employee restricted stock awards for each year starting from 2021 to 2024.

5.6.7 Employee Benefits Exceed Legal Requirements

TSMC generally offers employee benefits superior to those required by applicable statutes. In addition to twelve national holidays per year, seven memorial days are also designated as holidays. To alleviate traffic congestion during commuting hours, support family care needs, and create an inclusive workplace, the Company implemented a staggered commuting policy in 2023, which is continuously optimized. To encourage employee participation in the Company's vision of "making society better," TSMC provides one day of volunteer leave per year. The Company provides employees with statuary labor insurance and national health insurance as well as comprehensive paid group insurance plans. Coverage includes life insurance and insurance for accidents, hospitalization, cancer, critical illness, maternity and international business travel. There are also various and unique employee self-paid group insurance plans available for employee family members. The group insurance coverage is extended to employees on approved unpaid leave. To better support new hires, TSMC offers one day of annual leave for every two months of service in the first year. Employees who need to take long leaves of absence for military service or severe injuries can also apply for unpaid leave, and then apply for reinstatement after the expiration of the period. In addition, TSMC provides pensions, financial assistance for emergencies, subsidies for marriage, childbirth and funerals, as well as discounts in designated shops. In response to the continuous growth and diversification of its workforce, and to enhance support for employees' lives and family care, the Company launched the "TSMC Global Flexible Benefit Plan (abbreviated as tFlex)" in 2024, building on its existing benefits system. This plan is divided into four main categories: medical and insurance, family care, wellness, and development and volunteering. The plan offers each full-time employee worldwide flexible benefit points equivalent to US$250 (for employees in Taiwan, it's equivalent to NT$8,000) per year. Employees can independently choose and redeem benefits that align with their lifestyle.

In accordance with local laws and regulations, TSMC provides breastfeeding and breast milk collection rooms. To help employees balance their personal and work lives, TSMC not only offers parental leave but also provides a comprehensive leave management system. To further create a family-friendly workplace and support for TSMC employee parenting needs, in 2023 the Company implemented the TSMC Childcare Benefit Program 2.0, to extend maternity leave for a second birth from 12 to 16 weeks and a third birth from 16 to 20 weeks. The maternity subsidy increased to a maximum of NT$20,000 (NT$10,000 from employee welfare committee and maximum NT$10,000 maternity insurance). TSMC has set up four onsite kindergartens for employees in Taiwan. In addition, a holiday STEAM (science, technology, engineering, art and math) campus has been organized for employees' children.

All TSMC facilities are equipped with 24-hour Wellness Center, where occupational health professionals (physicians, nursing practitioners, psychologists) and appointed onsite physicians provide quality services beyond those required legally. The Wellness Center work with hospitals and employee assistance program service providers to offer comprehensive support for the emotional and physical well-being of employees. In addition to annual checkups for all employees, TSMC provides employees with five advanced checkup items upon completion of every five years of service. The Company encourages employees to exercise regularly by subsidizing approximately 70 clubs or exercise facilities, and holding regular sports events to help employees find peers with similar sports interests. Also, to help employees balance their work and life, TSMC provides:

- Convenient onsite services and amenities such as in-fab cafeterias, convenience stores, and other services
- Comprehensive health management services, including in-fab clinic services, post health-exam follow-up activities, and employee assistance programs
- Diverse employee welfare programs, leisure and art events, hobby clubs, vibrant sports centers and onsite preschool services to meet employees' needs for childcare, festival bonuses and emergency subsidies if and when needed

Vacation and insurance policies at TSMC's overseas offices are designed to comply with local regulations. In China, North America and Europe, TSMC provides more vacation days to employees than legally required. In overseas offices, TSMC offers a more comprehensive life and medical insurance than required by local regulations and customs.

5.6.8 Diverse Employee Recognition

TSMC sponsors various internal award programs to recognize employees for outstanding achievement, both individual and at a team level. With these award programs, TSMC aims to encourage continued employee development, which also enhances the Company's competitiveness.

The award programs include:

- TSMC Academy to recognize outstanding scientists and engineers whose individual technical capabilities have made significant contributions
- TSMC Excellent Labor Award to recognize technicians whose outstanding performances have made significant contributions
- Total Quality Excellence to recognize employees' continuous efforts in creating value at each fab
- Service Award to recognize and show appreciation of senior employees for their long-term commitment and dedication
- Excellent Instructor Award to praise the outstanding performance and contribution of internal instructors of training courses for employees

Apart from the recognitions above, there are function-wide awards dedicated to innovation, such as the Idea Forum, the Total Quality Excellence Award and the ESG Award, which recognize employee initiative and continuous implementation of innovative practices. In addition, TSMC encourages employees to participate in external talent activities and competitions. In 2024, distinguished TSMC employees continued to be recognized through a host of awards, such as the Model Labor Award, the Excellent Young Engineers Award, the Outstanding Engineer Award, the Taiwan Continuous Improvement Awards, the National Manager Excellence Award and the National Industrial Awards.

5.6.9 Employee Engagement

The Company encourages employees to maintain a healthy and well-balanced life while pursuing their career goals effectively. TSMC facilitates employee communication and provides employee caring, benefit, rewards and recognition programs.

Employee Communication

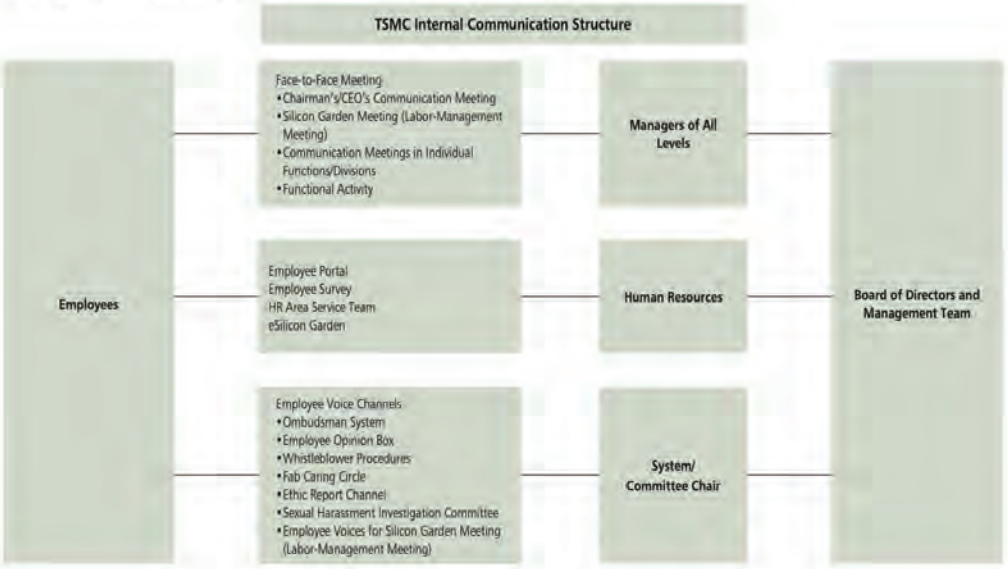
TSMC values employee communication and is committed to keeping communication channels open and transparent between managers and employees, and amongst peers. The Company is committed to ensuring that employees are able to communicate openly and share ideas and concerns with management regarding work conditions and management practices without fear of recrimination, reprisal, intimidation or harassment. TSMC makes continuous efforts to listen to employees and to facilitate mutual and timely employee communication, through multiple channels and platforms, which in turn fosters harmonious labor relations.

TSMC conducts biannual face-to-face CEO dialogue sessions in Hsinchu, Taichung, and Tainan, which allows the employees to make suggestions, express their thoughts and get direct feedback from the CEO. In addition, the Company has also enlarged the scope of the labor-management meeting, transforming it into the Silicon Garden Meeting, which helps all employees feel free to put forward their ideas so the Company can take appropriate action.

TSMC supports a host of various communication channels including:

- Communication meetings for various levels of managers and employees, e.g. the executives communication meeting, skip levels and communication meetings in individual functions/divisions
- Quarterly Silicon Garden meetings, aka Labor-Management meetings, to provide business updates and discuss issues of concern for employees
- The biennial global core values survey is conducted to understand the Company's implementation of core values from the employees' perspective
- The biennial global employee engagement survey is conducted to understand employees' work experience and engagement in the Company
- Periodic employee pulse surveys and service satisfaction surveys given to selected employees with follow-up actions based on survey findings
- *myTSMC* employee portal, an internal website featuring talks by the Founder, the Chairman and the CEO, corporate messages, executive interviews, and other topics of interest to employees
- *eSilicon Garden*, TSMC's newsletter providing real-time updates on major activities of the Company as well as inspirational content featuring outstanding teams or individuals
- Three channels for reporting complaints regarding managerial, financial, auditing, ethics and business conduct issues:
  - The whistleblower reporting system, administered by the Audit and Risk Committee
  - The irregular business conduct reporting system, administered by the Ethics Committee
  - The ombudsman system administered by a senior manager, appointed by the CEO
- The Employee Opinion Box, which provides an opportunity to submit suggestions or opinions regarding work and the work environment
- The Fab Caring Circle in each fab, which addresses issues related to employees' work and personal life – dedicated mainly to the Company's direct laborers
- The sexual harassment investigation committee, a channel dedicated to ensuring a work environment free from the threat of sexual harassment; the committee consists of three directors appointed by the CEO, one from human resources, one from legal affairs, and the third from another organization

Employee Communication Channels



During 2024 and as of the date of this Annual Report, TSMC has not incurred any labor-dispute related losses. However, the Company was fined for the following labor inspection results: NT$400,000 issued on 02/07/2024 for the extension of working hours combined with the regular working hours exceeding permitted limit (Labor Standards Act Article 32 Paragraph 2). NT$400,000 issued on 05/31/2024 for the extension of working hours combined with the regular working hours exceeding permitted limit (Labor Standards Act Article 32 Paragraph 2). NT$200,000 issued on 09/13/2024 for the extension of working hours combined with the regular working hours exceeding permitted limit (Labor Standards Act Article 32 Paragraph 2).

The Company has reviewed its working hour management process and established indices to remind employees to apply for overtime payment on time and for mangers to respond to such applications efficiently and in a timely fashion, and to be more diligent about employee working hours as well as to strengthen communication about these matters and relevant policies.

5.6.10 Retention

TSMC's efforts in talent retention are also reflected in the biennial "Core Values Survey" conducted in 2024. The survey covered employees from TSMC and its subsidiaries worldwide, with the exception of VisEra Technologies due to differences in industry background. The survey received valid responses from 71,706 employees, representing 91% of the total workforce. Among the respondents, 93% expressed their willingness to fully commit to their work to make TSMC even more successful, and 93% indicated that they were willing to contribute their talents and grow together with the company over the next five years. Both figures show a significant increase compared to 2022.

TSMC's turnover rate was 3.5% in 2024 compared to 3.7% in 2023, both within a healthy range of less than 10%.

5.6.11 Retirement Policy

TSMC established its statutory defined benefit plan and supervisory committee of labor retirement reserve according to the Labor Standards Act, and also set up its statutory defined contribution plan according to Labor Pension Act, which became effective starting July 1, 2005. For each region, TSMC also established pension plans according to local standards and regulations. The previously mentioned supervisory committee not only holds quarterly meetings but also supervises affairs in connection with labor's retirement reserve fund. To meet legal requirements for disclosure of financial reporting and ensure sufficient funding levels, TSMC makes contributions based statutory requirements and also engages an actuarial consulting firm to assess the valuation of the defined benefit plan. Please refer to page 44 to 46 of TSMC's Consolidated Financial Statements for details. Thanks to the Company's sound financial condition, it is able to ensure the future viability of employee retirement benefits and solid pension contributions and payments, which encourages employees to make long-term career plans with and further deepen their commitment to TSMC.

5.7 Material Contracts

TSMC is not currently a party to any material contracts, other than those entered into in the ordinary course of its business. The Company's "Significant Contingent Liabilities and Unrecognized Commitments" are disclosed in our company's consolidated financial statements on the Market Observation Post System (MOPS).

Link to MOPS: https://mops.twse.com.tw/mops/#/web/home

Note: Based on Willis Towers Watson's "High Performance Employee Experience (HPEX) Model."

6

Financial Highlights & Analysis

Advanced technologies (7-nanometer and beyond) accounted for 69 percent of TSMC's total wafer revenue.

6.1 Financial Status and Operating Results

6.1.1 Financial Status

Consolidated

Unit: NT$ thousands

Item	2024	2023	Difference	%
Current Assets	3,088,352,120	2,194,032,910	894,319,210	41%
Long-term Investments (Note 1)	149,040,373	129,442,117	19,598,256	15%
Property, Plant and Equipment	3,234,980,070	3,064,474,984	170,505,086	6%
Right-of-use Assets	40,128,391	40,424,830	(296,439)	-1%
Intangible Assets	26,282,520	22,766,744	3,515,776	15%
Other Assets (Note 2)	153,154,526	81,229,630	71,924,896	89%
Total Assets	6,691,938,000	5,532,371,215	1,159,566,785	21%
Current Liabilities	1,264,524,964	913,583,316	350,941,648	38%
Noncurrent Liabilities	1,103,837,171	1,135,525,052	(31,687,881)	-3%
Total Liabilities	2,368,362,135	2,049,108,368	319,253,767	16%
Capital Stock	259,327,332	259,320,710	6,622	0%
Capital Surplus	73,260,765	69,876,381	3,384,384	5%
Retained Earnings	3,917,252,023	3,158,030,792	759,221,231	24%
Others Equity	38,705,047	(28,314,256)	67,019,303	NM
Equity Attributable to Shareholders of the Parent	4,288,545,167	3,458,913,627	829,631,540	24%
Total Equity	4,323,575,865	3,483,262,847	840,313,018	24%

Note 1: Long-term investments consist of noncurrent financial assets at fair value through profit and loss, noncurrent financial assets at fair value through other comprehensive income, noncurrent financial assets at amortized cost, and investments accounted for using equity method.
Note 2: Other assets consist of deferred income tax assets, refundable deposits, and other noncurrent assets.

- **Analysis of Deviation over 20%**

Increase in Current Assets: The increase was mainly due to increase in cash and cash equivalents.
Increase in Other Assets: The increase in other assets was mainly due to increase in other noncurrent assets.
Increase in Total Assets: The increase in total assets was mainly due to increase in current assets and property, plant and equipment.
Increase in Current Liabilities: The increase was mainly due to increase in accrued expenses and other current liabilities and cash dividends payable.
Increase in Retained Earnings: The increase was mainly due to net income of 2024, partially offset by distribution of earnings.
Increase in Others Equity: The increase was mainly due to increase in currency exchange gain arising from translation of foreign operations in 2024.
Increase in Equity Attributable to Shareholders of the Parent: The increase was mainly due to increase in retained earnings.
Increase in Total Equity: The increase was mainly due to increase in equity attributable to shareholders of the parent.

- **Major Impact on Financial Position:** The above deviations had no major impact on TSMC's financial position.
- **Future Plan on Financial Position:** Not applicable.

Unconsolidated

Unit: NT$ thousands

Item	2024	2023	Difference	%
Current Assets	1,609,565,096	1,185,788,564	423,776,532	36%
Long-term Investments (Note 1)	1,759,646,229	1,095,656,042	663,990,187	61%
Property, Plant and Equipment	2,537,292,611	2,453,465,322	83,827,289	3%
Right-of-use Assets	37,899,147	37,872,705	26,442	0%
Intangible Assets	20,452,082	17,684,064	2,768,018	16%
Other Assets (Note 2)	72,394,135	83,612,587	(11,218,452)	-13%
Total Assets	6,037,249,300	4,874,079,284	1,163,170,016	24%
Current Liabilities	1,173,346,326	763,602,324	409,744,002	54%
Noncurrent Liabilities	575,357,807	651,563,333	(76,205,526)	-12%
Total Liabilities	1,748,704,133	1,415,165,657	333,538,476	24%
Capital Stock	259,327,332	259,320,710	6,622	0%
Capital Surplus	73,260,765	69,876,381	3,384,384	5%
Retained Earnings	3,917,252,023	3,158,030,792	759,221,231	24%
Others	38,705,047	(28,314,256)	67,019,303	NM
Total Equity	4,288,545,167	3,458,913,627	829,631,540	24%

Note 1: Long-term investments consist of noncurrent financial assets at fair value through other comprehensive income, and investments accounted for using equity method.
Note 2: Other assets consist of deferred income tax assets, refundable deposits, and other noncurrent assets.

- **Analysis of Deviation over 20%**

Increase in Current Assets: The increase was mainly due to increase in cash and cash equivalents.
Increase in Long-term Investments: The increase was mainly due to increase in investments accounted for using equity method.
Increase in Total Assets: The increase in total assets was mainly due to increase in current assets and long-term investments.
Increase in Current Liabilities: The increase was mainly due to increase in accrued expenses and other current liabilities and cash dividends payable.
Increase in Total Liabilities: The increase was mainly due to increase in current liabilities.
Increase in Retained Earnings: The increase was mainly due to net income of 2024, partially offset by distribution of earnings.
Increase in Others Equity: The increase was mainly due to increase in currency exchange gain arising from translation of foreign operations in 2024.
Increase in Total Equity: The increase was mainly due to increase in retained earnings.

- **Major Impact on Financial Position:** The above deviations had no major impact on TSMC's financial position.
- **Future Plan on Financial Position:** Not applicable.

6.1.2 Financial Performance

Consolidated

Unit: NT$ thousands

Item	2024	2023	Difference	%
Net Revenue	2,894,307,699	2,161,735,841	732,571,858	34%
Cost of Revenue	1,269,954,135	986,625,213	283,328,922	29%
Gross Profit	1,624,353,564	1,175,110,628	449,242,936	38%
Operating Expenses	301,070,315	253,833,716	47,236,599	19%
Other Operating Income and Expenses, Net	(1,230,199)	188,694	(1,418,893)	-752%
Income from Operations	1,322,053,050	921,465,606	400,587,444	43%
Non-operating Income and Expenses	83,785,585	57,705,718	26,079,867	45%
Income before Income Tax	1,405,838,635	979,171,324	426,667,311	44%
Income Tax Expenses	233,406,876	141,403,807	92,003,069	65%
Net Income	1,172,431,759	837,767,517	334,664,242	40%
Other Comprehensive Gain (Loss), Net of Income Tax	71,585,646	(8,813,644)	80,399,290	NM
Total Comprehensive Income for the Year	1,244,017,405	828,953,873	415,063,532	50%
Total Net Income Attributable to Shareholders of the Parent	1,173,267,703	838,497,664	334,770,039	40%
Total Comprehensive Income Attributable to Shareholders of the Parent	1,245,836,616	830,509,542	415,327,074	50%

- **Analysis of Deviation over 20%**

Increase in Net Revenue: The increase was mainly attributed to rise in average selling price, higher wafer shipments and the favorable impact of change in foreign exchange rate.

Increase in Cost of Revenue: The increase was mainly due to higher sales.

Increase in Gross Profit: The increase was mainly due to higher capacity utilization and the favorable impact of change in foreign exchange rate, partially offset by 3-nanometer ramp-up and higher electricity cost.

Decrease in Other Operating Income and Expenses, Net: The decrease was mainly due to impairment losses caused by the earthquake in 2024.

Increase in Income from Operations: The increase was mainly due to higher gross profit.

Increase in Non-operating Income and Expenses: The increase was mainly due to higher interest income in 2024.

Increase in Income before Income Tax: The increase was mainly due to higher income from operations.

Increase in Income Tax Expenses and Net Income: The increase was mainly due to higher income before income tax.

Increase in Other Comprehensive Gain (Loss), Net of Income Tax: The increase was mainly due to increase in currency exchange gain arising from translation of foreign operations in 2024.

Increase in Total Comprehensive Income for the Year, Total Net Income Attributable to Shareholders of the Parent and Total Comprehensive Income Attributable to Shareholders of the Parent: The increase was mainly due to higher net income in 2024.

- **Sales Volume Forecast and Related Information:** For additional details, please refer to "1. Letter to Shareholders."
- **Major Impact on Financial Performance:** The above deviations had no major impact on TSMC's financial performance.
- **Future Plan on Financial Performance:** Not applicable.

Unconsolidated

Unit: NT$ thousands

Item	2024	2023	Difference	%
Net Revenue	2,880,383,350	2,153,285,095	727,098,255	34%
Cost of Revenue	1,306,140,916	1,022,660,164	283,480,752	28%
Gross Profit	1,574,242,434	1,130,624,931	443,617,503	39%
Operating Expenses	255,546,895	223,733,531	31,813,364	14%
Other Operating Income and Expenses, Net	(1,549,447)	481,455	(2,030,902)	-422%
Income from Operations	1,317,146,092	907,372,855	409,773,237	45%
Non-operating Income and Expenses	90,462,877	70,398,381	20,064,496	29%
Income before Income Tax	1,407,608,969	977,771,236	429,837,733	44%
Income Tax Expenses	234,341,266	139,273,572	95,067,694	68%
Net Income	1,173,267,703	838,497,664	334,770,039	40%
Other Comprehensive Gain (Loss), Net of Income Tax	72,568,913	(7,988,122)	80,557,035	NM
Total Comprehensive Income for the Year	1,245,836,616	830,509,542	415,327,074	50%

- **Analysis of Deviation over 20%**

Increase in Net Revenue: The increase was mainly attributed to rise in average selling price, higher wafer shipments and the favorable impact of change in foreign exchange rate.

Increase in Cost of Revenue: The increase was mainly due to higher sales.

Increase in Gross Profit: The increase was mainly due to higher capacity utilization and the favorable impact of change in foreign exchange rate, partially offset by 3-nanometer ramp-up and higher electricity cost.

Decrease in Other Operating Income and Expenses, Net: The decrease was mainly due to impairment losses caused by the earthquake in 2024.

Increase in Income from Operations: The increase was mainly due to higher gross profit.

Increase in Non-operating Income and Expenses: The increase was mainly due to higher share of profits of subsidiaries and associates in 2024.

Increase in Income before Income Tax: The increase was mainly due to higher income from operations.

Increase in Income Tax Expenses and Net Income: The increase was mainly due to higher income before income tax.

Increase in Other Comprehensive Gain (Loss), Net of Income Tax: The increase was mainly due to increase in currency exchange gain arising from translation of foreign operations in 2024.

Increase in Total Comprehensive Income for the Year: The increase was mainly due to higher net income in 2024.

- **Sales Volume Forecast and Related Information:** For additional details, please refer to "1. Letter to Shareholders."
- **Major Impact on Financial Performance:** The above deviations had no major impact on TSMC's financial performance.
- **Future Plan on Financial Performance:** Not applicable.

6.1.3 Cash Flow

Consolidated

Unit: NT$ thousands

Cash Balance 12/31/2023	Net Cash Provided by Operating Activities in 2024	Net Cash Used in Investing Activities in 2024	Net Cash Used in Financing Activities in 2024	Effect of Exchange Rate Changes on Cash and Cash Equivalents in 2024	Cash Balance 12/31/2024	Remedy for Liquidity Shortfall	
						Investment Plan	Financing Plan
1,465,427,753	1,826,177,068	(864,842,769)	(346,300,910)	47,165,901	2,127,627,043	None	None

- **Analysis of Cash Flow**

NT$1,826.2 billion net cash generated by operating activities: mainly include net income, along with depreciation and amortization expenses.

NT$864.8 billion net cash used in investing activities: primarily for capital expenditures.

NT$346.3 billion net cash used in financing activities: mainly for cash dividend payment.

- **Remedial Actions for Liquidity Shortfall:** As a result of positive operating cash flows and cash on-hand, remedial actions are not required.
- **Cash Flow Projection for Next Year:** Not applicable.

Unconsolidated

Unit: NT$ thousands

Cash Balance 12/31/2023	Net Cash Provided by Operating Activities in 2024	Net Cash Used in Investing Activities in 2024	Net Cash Used in Financing Activities in 2024	Cash Balance 12/31/2024	Remedy for Liquidity Shortfall	
					Investment Plan	Financing Plan
718,703,712	1,835,575,369	(618,548,957)	(900,668,625)	1,035,061,499	None	None

- **Analysis of Cash Flow**

NT$1,835.6 billion net cash generated by operating activities: mainly include net income, along with depreciation and amortization expenses.

NT$618.5 billion net cash used in investing activities: primarily for capital expenditures.

NT$900.7 billion net cash used in financing activities: mainly for investment in subsidiaries and cash dividend payment.

- **Remedial Actions for Liquidity Shortfall:** As a result of positive operating cash flows and cash on-hand, remedial actions are not required.
- **Cash Flow Projection for Next Year:** Not applicable.

6.1.4 Recent Years Major Capital Expenditures and Impact on Financial and Business

Unit: NT$ thousands

Plan	Actual or Planned Source of Capital	Total Amount for 2024 and 2023	Actual Use of Capital	
			2024	2023
Production Facilities, R&D and Production Equipment	Cash flow generated from operations and issuance of corporate bonds	1,878,220,726	939,764,405	938,456,321
Others	Cash flow generated from operations	27,602,635	16,242,131	11,360,504
Total		1,905,823,361	956,006,536	949,816,825

Based on capital expenditures listed above, TSMC's annual production capacity increased by approximately 0.9 million 12-inch equivalent wafers in 2024.

6.1.5 Long-term Equity Investment Policy and Results

TSMC's long-term equity investments, accounted for using the equity method, were all made for strategic purposes. In 2024, the gains from these investments amounted to NT$4,879,367 thousand on a consolidated basis, up from the previous year mainly due to increases in product demand. In the future, TSMC's long-term equity investments, accounted for using the equity method, will continue to focus on strategic purposes through prudent assessments.

6.2 Risk Management

6.2.1 Risk Management Overview

Risk Management Policy and Framework

TSMC employs a balanced risk-reward approach to risk management to optimize business returns. This applies to all aspects of the business, including our commitment to environmental, social and governance (ESG) issues in to delivering long-term value to all stakeholders. TSMC's risk management policy is approved by the Board of Directors and signed by the Chairman and CEO. The Company is committed to proactive and robust risk management system in assisting TSMC in making well-considered, risk-based decisions that fulfill the corporate vision and deliver sustainable value to TSMC and its stakeholders.

Adhering closely to the International Organization for Standardization (ISO) 31000: 2018 Risk Management System and the Committee of Sponsoring Organizations of the Treadway Commission (COSO)'s Enterprise Risk Management – Integrated Framework, TSMC's Enterprise Risk Management (ERM) framework is a systematic approach that enables the Company to respond to the changing dynamics in the business environment, as well as to capitalize on business opportunities.

The ERM framework specifies the risk governance structure, the management process that integrates business operations, and the tools that facilitate the identification, assessment, response, monitoring and review of risks. A risk criteria matrix, on the potential likelihood and impact on financials, operational, reputation and compliance, is applied in the assessment and prioritisation of risks identified. A formalized training and communication program to build risk competency and foster a risk-aware culture helps management in making informed risk-based decisions while implementing corporate strategies.

Risk-Aware Culture

TSMC's Board and management are fully committed to fostering a strong risk-aware culture and to cultivating the following:

- Strategy and leadership – Strategy, values and behaviors are clearly linked to risk objectives. Key messages encouraging proactive risk management are integrated into events, meetings and decision making to optimize the risk management process.
- Accountability and reinforcement – Risk management is a responsibility shared by both management and employees. All employees are expected to be accountable for managing risks related to their area of responsibility with clear risk ownership. Risk management is embedded in the performance evaluation process, which further promotes accountability and ownership.
- Communication and capability – The Company promotes consistency, transparency and openness in sharing information and managing pressing risk matters, incidents and near-misses. TSMC's Risk Management Academy is tasked with the goal of raising risk management competency through training at all levels of employees, including the Board of Directors and management. To foster an effective risk-aware culture, risk communication is made in various forums, in-house publications and events.
- Risk management and infrastructure – Risk identification and assessment are embedded in key control processes with systems, tools, processes and policies to support effective risk management.

• **Enterprise Risk Management Framework**

Risk Appetite and Risk Management Scope

TSMC has defined its risk appetite in statements that outline the nature and extent of risks it is willing to take in pursuit of its business goals:

- The risk taken should be carefully evaluated, commensurate with rewards and in line with the Company's strategic, investment, financial and corporate objectives.
- Risk considerations are an integral part of business operations and managed within the risk tolerance of the divisions, of relevant functional units and of the Company itself.
- The Company will not invest or participate in any business activities that exceed its risk tolerance.
- The Company does not tolerate safety related breaches or lapses, non-compliance with laws and regulations, or illegal acts such as fraud, bribery and corruption.

Following a five-step risk management process – identification, assessment, response, monitoring and review – risk assessments are performed by key functional units to form an enterprise-level risk map and mitigation plans, which are presented to the audit and risk committee. This process is supported by ongoing education and awareness efforts in fostering a risk-aware culture and building risk competencies. TSMC recognizes that its systems and processes provide reasonable but not absolute assurance and hence continually strives to improve its ability to manage and respond to risks and capitalize on opportunities.

Emerging Risks

Effective risk management is dynamic and encompasses the evaluation of both risks and opportunities. TSMC's risk management framework and processes ensure that the evaluations stay effective and relevant. In a dynamic business environment, the Company recognizes the impact of global and emerging risks on corporate strategy. TSMC continues to scan the environment for risks that could impact its business or operations. Where relevant, these risks are examined and discussed at various forums and by the RM steering committee to determine if any further actions or responses are warranted. TSMC is committed to evaluating all significant risks in a balanced and holistic manner with the objective of delivering sustainable long-term value to all stakeholders.

TSMC's top emerging risks have been identified as:

- Complexity in the cyber landscape giving rise to sophisticated cyber threats: The adoption of new technologies, such as AI and quantum computing, increases cybersecurity risks, which is further exacerbated by cyber espionage. The semiconductor ecosystem, including suppliers and customers, is also at risk from cyberattacks, which could potentially have a major impact on the supply chain resulting in business disruption, loss of business opportunities, reputational impact, etc. Mitigating actions include but are not limited to multi-layered defenses, continuous simulation exercises, and supply chain security management.
- De-globalization leading to the polarization of high-tech industry: National security is expected to be a growing concern and top priority of major countries, which in turn have deployed strategic actions to secure semiconductor self-sufficiency and localization of supply chains. The multi-polarization effect of the high-tech industry is weakening globalization and restricting the free flow of goods and technology for geopolitical gain. TSMC's business might face adverse impact arising from weakened operational efficiency and resilience, elevated costs, and loss of business opportunities, etc. Mitigating actions include but are not limited to risk-based strategic investment planning, localization and optimization of key operation resources, and enhancement of business continuity plans.
- Climate transition action failure: Climate inaction is one of the major threats to the world. Ineffective responses to the changes needed to achieve a net-zero world pose risks to TSMC's operations, value chain and markets, notwithstanding measures taken by others to address climate risks and opportunities. Mitigating actions include implementing plans targeting RE100/net zero emission and collaborating with external parties and authorities.

Risk Management Governance Structure

Risk management at TSMC involves both the Board of Directors and management in an effort to embed sound risk related practices in business decisions and operations throughout the Company. The Board of Directors is responsible for risk governance and has authorized the Audit and Risk Committee to review TSMC's ERM framework. At the executive level, the risk management governance structure includes the risk management steering committee, the risk management executive council, taskforces and the risk management division.

Assisting the audit and risk committee in establishing and overseeing a proactive and effective system, the risk management division works with each function and fab in applying the ERM framework to assess and mitigate risks throughout TSMC by monitoring and implementing risk related policies and guidelines, as well as by taking initiatives to support the implementation of ERM framework. Every six months, the risk management division reports to the audit and risk committee on TSMC's key risks and mitigation efforts. The audit and risk committee's chairperson then reports to the Board of Directors on the current risk profile and risk mitigation measures being taken.

- **Risk Management Governance Structure**

The roles and responsibilities of the various committees under the risk management governance structure are defined below:

Risk Management Steering Committee

- Advises the Board in determining overall risk appetite, tolerance, strategy and resource allocation, taking into account current and prospective macroeconomic, technological, regulatory, environmental and social developments and trends.
- Reviews and oversees the applicability and performances of the risk management framework, policies and procedures.
- Provides advice and assurance to the Board by adopting a holistic view of the key risks that TSMC is exposed to and approves the prioritization of risk mitigations.
- Sets the tone for risk management from the top, sponsors initiatives and activities to nurture the desired risk culture, awareness and capabilities to effectively manage key risks and new type of risks, including clarifying risk ownership.
- Ensures that risk management is incorporated into strategic business development and operational planning, day-to-day management and decision making.
- Advises the Board on proposed transactions so as to address strategic risks and capitalize on opportunities.

Risk Management Executive Council

- Identifies potential and emerging risks that may impact TSMC in achieving its objectives and/or the continued effectiveness and efficiency of its business operations.
- Conducts risk assessments, defines mitigation plans, including incident management plans, provides sponsorship and allocates sufficient resources to enable timely and effective mitigation.
- Leads and drives cross-functional taskforces, meetings or other activities to ensure that risks are adequately and effectively mitigated, including collaborating with the risk management division and various other parties.
- Defines key risk indicators (KRIs) to proactively monitor risk dynamics and respond in a timely and effective manner.
- Builds a risk-aware culture and raises risk competency in fabs and divisions, including but not limited to training, exercises and continuous improvement.
- Defines and facilitates action plans based on root cause analysis to prevent recurrences of major incidents and high-risk events as raised by major findings of internal and external reviews.
- Implements the decisions made by the risk management steering committee and reports back to the committee on the progress, effectiveness, and lessons learned.
- Includes performance of RM Council in management reviews.

Risk Management Taskforce

- Identifies and assesses potential risks and threats that may prevent TSMC from achieving its business objectives and deploys appropriate mitigation measures.
- Plans and executes risk prevention and mitigation in accordance with various scenarios.
- Organizes and/or participates in cross-functional meetings to address risks that span multiple disciplines or divisions/fabs.
- Participates in the implementation and execution of risk management initiatives and activities.
- Reviews division or fab investigations of major incidents or high-risk events and their major findings. Monitors the effectiveness of action plans.

Risk Management Division

- Assists the Board in establishing and overseeing a proactive and effective mechanism of risk management and business continuity, including risk appetite and tolerance, risk strategy and management framework, policies and procedures.
- Strengthens risk culture, awareness, and risk management capabilities through continuous trainings, communications and awareness programs.
- Identifies and analyzes the sources and categories of risks to the Company and regularly reviews their relevance.
- Facilitates risk management committees and risk owners in the implementation of risk management activities and initiatives to identify and manage risks, including the review of mitigation plans, business continuity, crisis and incident management plans; reviews the effectiveness of risk management activities through documented reports, management discussions and meetings.
- Coordinates cross-department and cross-functional interaction and communication of risk management operations and decisions, including implementing decisions of the risk management steering committee.
- Consults with management, consultants and peers on best practices and standards for continuous improvement and benchmarking.
- Prepares reports to stakeholders that may be required from time to time by regulators, government agencies, insurers/brokers and customers, including an annual report on the implementation of Company's risk management system.

Three-Lines of Defense

TSMC adopts the Three-Lines of Defense Model towards ensuring the adequacy and effectiveness of TSMC's risk management system.

- Under the First Line, management is supported by their respective line functions and committees such as the Risk Management Council, comprising of risk management champions, responsible for the identification and mitigation of risks (including strategic, financial, operation, and compliance risks) facing the company. Risk Management Taskforces are formed in the management of specific risk areas. Guided by the TSMC's Enterprise Risk Management Framework, appropriate policies and procedures are implemented and operationalized in line with the TSMC's risk appetite to address such risks. Adoption of the 5-step risk management process ensures the integration of risk management process in business operations.
- Under the Second Line, the TSMC's Risk Management Policy is established to enable oversight and governance over operations and activities undertaken by management under the First Line. The Risk Management Steering Committee supports the Board in its oversight of the effectiveness of the risk management framework. Risk Management Division works alongside functions and business management to ensure relevant policies and processes are effectively designed and implemented to ensure risks are effectively managed and fostered by a risk-aware culture.
- The Third Line comprises independent assurance, including internal and external audit. TSMC conducts internal and external audits of the risk management framework and process periodically, to identify opportunities to improve the effectiveness of risk management and its processes. The Internal Audit Division reports quarterly to the Audit and Risk Committee.

Risk Management Initiatives in 2024

The table below outlines the key initiatives taken to strengthen our risk management program:

Strengthen Risk Governance	Foster Risk Aware Culture	Build Operational Resilience	Deepen Stakeholder's Engagement	Raise Risk Competency
•Appointment of Risk Management Champions •Formalization of ERM/BCM taskforce for Enterprise Risks •Embedment of risk management indicators in performance evaluation.	•Risk Management Communication and Publicity Efforts •Newsletters •Lunchtime Talks / Seminars •Risk management portal	•BCM exercises across cross function teams and fabs •Streamline BCM plans and procedures	•Risk Management Champions Community Building and Exchange •Deepen external engagements with insurers, customers, government authorities, regulators, suppliers	•Governing Cyber Security Training for Board •ERM/BCM workshops for Fabs/ Overseas subsidiaries •Roll out RM e-training •RM resource publications

Crisis Management and Business Continuity Management

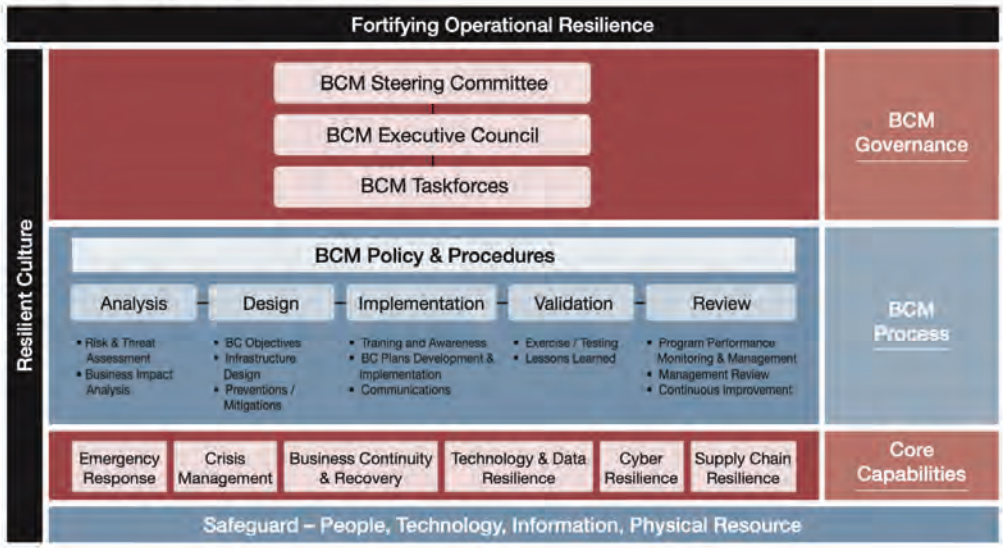
TSMC is committed to maintaining operational resilience and business continuity by taking close reference to standards that enable the Company to respond effectively to business disruption. The Company is cognizant of the major risks of natural and man-made disasters, including earthquakes, floods, typhoons, droughts, tsunamis, sandstorms, wildfires, volcanic eruptions, fire, gas/chemical leaks or spills, pandemics, cyber-attacks, supply chain disruption, geopolitical tension, sabotage, failure of critical facilities and equipment, and shortages in utilities such as water, electricity and natural gas – any or all of which could disrupt operations.

To mitigate the operational impact of crisis events, the risk management division implements pre-crisis risk assessment, response procedures and recovery plans. Exercises and drills are also conducted to validate emergency responses, crisis management, business continuity plans to enhance operational preparedness. In major incidents or crisis events, the crisis management guidelines are followed. The central crisis command center (C4), headed by the Chairman and CEO and comprised of senior executives across key functions, provides guidance and decision-making to maintain response readiness, including timely communication to key stakeholders.

Business Continuity Management Framework

TSMC's business continuity management (BCM) framework guides the Company in responding effectively and promptly to business disruption, which safeguards the interests of the Company and its stakeholders. The BCM framework outlines the governance structure, processes and capabilities supported by a resilient culture in fortifying the Company's operational resilience.

Business Continuity Management Framework



6.2.2 Strategic Risks

Risks Associated with Changes in Technology and Industry

- **Industry Developments**

The electronics industries and semiconductor market are cyclical and subject to significant and often rapid fluctuations in product demand, which could impact TSMC's semiconductor foundry business. Variations in customer order levels may result in volatility in the Company's revenue and earnings.

From time to time, the electronics and semiconductor industries have experienced significant and occasionally prolonged periods of downturns and overcapacity. Because TSMC is, and will continue to be, dependent on the demand of electronics and semiconductor companies for its services, periods of downturns and overcapacity in the general electronics and semiconductor industries could lead to reduced demand for overall semiconductor foundry services, including TSMC's services. If TSMC is not able to take appropriate actions, such as reducing its costs to sufficiently offset declines in demand, the Company's revenue, margins and earnings will likely suffer during periods of downturns and overcapacity.

- **Changes in Technology**

The semiconductor industry and its technologies are constantly changing. TSMC competes by developing process technologies using increasingly advanced nodes and manufacturing products with more functions. The Company also competes by developing new derivative technologies. If TSMC does not anticipate these changes in technologies and rapidly develop new and innovative technologies, or the Company's competitors unforeseeably gain sudden access to additional technologies, TSMC may not be able

to provide foundry services on competitive terms. For example, the global surge in the development of artificial intelligence (AI) has had a significant impact on customer demand for advanced semiconductor chips and the market dynamics in TSMC's industry; thus, TSMC's ability to continuously develop relevant technologies, products and services to meet these customer needs and changes in the AI industry will be critical for the Company to effectively compete in this space. TSMC also believes that the effective use of AI in its internal operations is important to its long-term success. As the AI technologies are rapidly evolving, if TSMC is unable to deploy new AI technologies in its internal operations as effectively as its competitors, it may hurt the Company's competitive position. In addition, TSMC's customers have significantly decreased the time in which their products or services are launched into the market. If TSMC is unable to meet these shorter product time-to-market, it risks losing these customers. These factors have also been intensified by the shift of the global technology market to consumer driven products, such as smartphones, and increasing competition and concentration of customers (all further discussed among these risk factors).

Also, the uncertainty and instability inherent in advanced technologies impose challenges for achieving expected product quality and product yield. If TSMC fails to maintain quality, it may result in loss of revenue and additional cost, as well as loss of business or customer trust. If TSMC is unable to overcome the above factors, it may become less competitive and its revenue may decline significantly.

Regarding the response measures for the above-mentioned risks, please refer to "2.2.4 TSMC Position, Differentiation and Strategy" on page 17-19 of this Annual Report.

• IT Security

Even though TSMC has established a comprehensive internet and computing security network, the Company cannot guarantee that its computing systems which control or maintain vital corporate functions, such as its manufacturing operations and enterprise accounting, would be completely immune to crippling cyberattacks. In the event of a serious cyberattack, TSMC's systems may lose important corporate data or its production lines may be shut down pending the resolution of such attack. Major cyberattacks could also lead to loss or divulgence of trade secrets and other sensitive information, such as proprietary information of its customers and other stakeholders and personal information of its employees. While TSMC seeks to continuously review and assess its cybersecurity policies and procedures to ensure their adequacy and effectiveness, it cannot guarantee that it will not be susceptible to new and emerging risks and attacks in the evolving landscape of cybersecurity threats. For example, as AI continues to evolve, cyber-attackers could also use AI to develop malicious codes and sophisticated phishing attempts.

Malicious hackers may also try to introduce computer viruses, corrupted software or ransomware into TSMC's network systems to disrupt its operations, or blackmail the Company to regain control of its computing systems, or spy on it for sensitive information. These attacks may result in TSMC having to pay damages for its delayed or disrupted orders or incur significant expenses in implementing remedial and improvement measures to further enhance its cybersecurity network, and may also expose the Company to significant legal liabilities arising from or related to legal proceedings or regulatory investigations associated with such breaches.

In the past, TSMC has experienced and may in the future be subject to attack by malicious software. The Company has implemented and continually updates rigorous cybersecurity measures to prevent and minimize harm caused by such attacks. These measures comprehensively enhance security protection capabilities across internet services, offices, fabs, and cloud platforms. In addition, TSMC consistently strengthens the security of its offices, facilities, and data centers worldwide to ensure operational stability and data integrity. As a result, TSMC's scores in international security assessments are significantly higher than the industry average, demonstrating the Company's ongoing commitment to and high regard for cybersecurity.

In 2024, TSMC focused on enhancing network security visibility in its fabs, improving fab network architecture and control to prevent the spread of viruses across tools and fabs, and conducting comprehensive threat monitoring in data centers. The Company has implemented automated end-to-end scanning protection from offices to data centers, established robust cloud service security posture management (tools and practices that monitor, detect, and remediate security risks across cloud environments), and adopted secure configurations for unified external website security. TSMC has also implemented device authentication and control in office environments, created a global virtual office environment to enable employees to use computers and systems safely and conveniently anytime, anywhere, and adopted proactive network defense measures to detect and prevent attackers. Additionally, the Company has identified potential risks from a hacker's perspective, conducted external red team

(cyberattack simulation) testing, and continually assessed its security posture. TSMC has implemented application quality measures, enhanced the security and efficiency of the software development process, and introduced new technologies to strengthen data protection, ensuring that the protection of TSMC's critical data complies with international standards and improving overall employee security awareness.

To reduce supply chain risks, TSMC collaborates with key suppliers to assist them in improving their information security maturity. In 2024, TSMC organized a cybersecurity workshop for suppliers, sharing network security defense solutions and practices. Nearly 800 participants from close to 500 suppliers attended the workshop, which received high recognition from the suppliers. This effort not only enhanced the security capabilities of the suppliers but also strengthened the trust and communication between TSMC and its suppliers, thereby promoting the information security resilience of the entire supply chain. In 2024, TSMC further signed the MOU, memorandum of cybersecurity cooperation with the National Institute of Cyber Security. The two parties will enhance information security professional capabilities and protection capabilities through joint information security defense, and deepen industrial supply chain information security management and protection. TSMC continues to strengthen its own and supply chain information security and fulfill its corporate social responsibilities. Starting from 2021, TSMC has won the TCSA Taiwan Corporate Sustainability Award – Information Security Leadership Award for four consecutive years.

In addition, TSMC employs certain third-party service providers for the Company and its affiliates worldwide with whom it needs to share highly sensitive and confidential information to enable them to provide the relevant services. While TSMC requires such third-party service providers to strictly fulfill the confidentiality and/or internet security requirements in its service agreements with them, there is no assurance that each of them will comply with such obligations. Moreover, such third-party service providers may also be susceptible to cyberattacks. If TSMC or its service providers are not able to timely resolve the respective technical difficulties caused by such cyberattacks, or ensure the integrity and availability of its data (and data belonging to its customers and other third parties) or maintain control of its or its service providers' computing systems, the Company's commitments to its customers and other stakeholders may be materially impaired and its results of operations, financial condition, prospects and reputation may also be materially and adversely affected.

Risks Associated with Decrease in Demand and Average Selling Price

A vast majority of the Company's revenue is derived from customers who use TSMC products in HPC (including AI applications), smartphones, IoT, automotive, and digital consumer electronics. Any deterioration in or a slowdown in the growth of such end markets resulting in a substantial decrease in the demand for overall global semiconductor foundry services, including TSMC products and services, could adversely affect the Company's revenue. Further, semiconductor manufacturing facilities require substantial investment to construct and are largely fixed cost assets once they are in operation. Because TSMC owns most of its manufacturing capacities, a significant portion of its operating costs is fixed. In general, these costs do not decline when customer demand or its capacity utilization rates drop, and thus declines in customer demand, among other factors, may significantly decrease the Company's margins. Conversely, as product demand rises and factory utilization increases, the fixed costs are spread over increased output, which can improve the Company's margins. In addition, the historical trend of declining average selling prices (ASP) of end-use applications places downward pressure on the prices of the components that go into such applications. Decreases in the ASP of end-use applications may increase pricing pressure on components produced by TSMC, which, in turn, may negatively impact its revenue, margin and earnings.

Risks Associated with Competition

The competition in the semiconductor foundry segment is fierce. TSMC competes with other foundry service providers, as well as a number of integrated device manufacturers. Some of these companies may have access to more advanced or different technologies than the Company. Other companies may have greater financial and other resources than the Company, such as the possibility of receiving direct or indirect government subsidies, economic stimulus funds, or other incentives that may be unavailable to TSMC. The governments of the United States, China, Europe, South Korea and Japan provide various incentive programs to promote developments of their domestic semiconductor industries, such as the Creating Helpful Incentives to Produce Semiconductors and Science Act of 2022 (the U.S. CHIPS Act), which provides financial incentives to incentivize the development of U.S. semiconductor industry. In November 2024, TSMC Arizona Corporation ("TSMC Arizona") entered into agreements with the U.S. Department of Commerce for the receipt of certain incentives pursuant to the U.S. CHIPS Act, which includes up to US$6.6 billion in total direct funding and up to US$5 billion of

proposed loans. In December 2024, European Semiconductor Manufacturing Company (ESMC) GmbH ("ESMC"), TSMC's subsidiary in Germany, entered into an agreement with the Federal Republic of Germany for the receipt of up to EUR5 billion state aid under the European Chips Act (Regulation (EU) 2023/1781). Although governments in certain of the countries or regions where TSMC is currently expanding or planning to expand its production capacity have extended or may in the future extend certain financial incentives to the Company, there is no assurance that TSMC will be able to receive such financial incentives, including pursuant to the U.S. CHIPS Act, at the levels the Company anticipate or at all. Additionally, any financial incentives the Company receives may be subject to conditions and requirements imposed by the grantors, such as restrictions on the expansion of facilities in foreign countries of concern and on joint research and technology licensing efforts with foreign entities of concern on any technology or product that raises national security concerns. Noncompliance with the terms and conditions of the grants that the Company may receive could result in a delay or forfeiture of all or a portion of any future amounts to be received, as well as obligate us to repay all or a portion of amounts already received pursuant to the grants. Even if the Company satisfies the conditions and requirements for the funding disbursement, it is possible that the grantor may delay the disbursement or be unable to provide the funding. While the Company expects to continue benefiting from government incentives, failure to obtain grants that the Company seeks, to fully utilize available grants, or to comply with the terms and conditions of grants, could impact the Company's ability to achieve its goals for the projects that would otherwise benefit from grant funding and could has an adverse effect on its business, results of operations, and financial condition.

Moreover, the Company's competitors may, from time to time, also decide to undertake aggressive pricing initiatives in one or several technology nodes. The Company's competitors may also compete for its customers who seek to diversify their supply chains. These competitive activities may decrease TSMC's customer base, its pricing, or both. If the Company is unable to compete effectively with such competitors on technology, manufacturing capacity, product quality, supply chain diversification and resilience, and customer satisfaction, it risks losing customers or business to such contenders.

Risks Associated with Changes in the Government Policies and Regulatory Environment

TSMC management closely monitors all domestic and foreign governmental policies and regulations that might impact TSMC's business and financial operations. During 2024 and as of the date of this Annual Report, the following changes or developments in governmental policies and regulations may influence the Company's business operations:

The manufacturing, assembling and testing of TSMC's products require the use of chemicals and materials that are subject to environmental, climate related, health and safety laws and regulations issued worldwide as well as international accords such as the Paris Agreement. The Climate Change Response Act of the R.O.C., effective since 2015 and amended in February 2023, set a goal of reaching net-zero emissions in Taiwan by 2050 and established a carbon fee system to collect carbon fee. For emitters with direct and indirect emissions exceeding a certain threshold, carbon fees will be levied starting from 2025. As TSMC's emissions from each fab in Taiwan exceed the current regulatory threshold, we will start to pay carbon fees from 2026 (for the 2025 fees), which will result in increased operating costs for us. Also, the R.O.C. legislative authority is regularly reviewing various environmental issues to develop laws and regulations relating to environmental protection and climate changes. The impact of such laws and regulations is currently indeterminable.

It is not expected that other governmental policies or regulatory changes would materially impact TSMC's operations or financial condition.

6.2.3 Operational Risks

Natural and Man-Made Disaster

TSMC is committed to maintaining operational resilience in accordance with business continuity management standards that equips it with the capability to respond effectively to business disruption. Disruptions caused by natural and man-made disasters, including earthquakes, flooding, typhoons, droughts, tsunamis, sandstorms, wildfires, volcanic eruptions, fire, gas/chemical leakage or spill, pandemic, cyberattacks, supply chain disruption, geopolitical tensions, sabotage, terrorism, failure of critical facilities and equipment, disruptions in utilities, such as water, electricity and natural gas, etc., could interrupt our operations.

Most of TSMC's production facilities, as well as those of many of its suppliers, customers and upstream providers of complementary semiconductor manufacturing services, are located in areas susceptible to natural disasters and may face potential shortages of electricity and/or water, which could cause interruptions to TSMC's operations. In April 2024 and January 2025, several earthquakes struck Taiwan, causing damage to our inventories, plant facilities, machinery and equipment. We recognized approximately NT$3 billion and NT$5.3 billion in losses from earthquakes, net of insurance claim, respectively, in the second quarter of 2024 and the first quarter of 2025.

If one or more natural disasters result in a prolonged disruption to TSMC's operations or those of its customers or suppliers, or if any of its fabs or vendor facilities were to be damaged or cease operations as a result of an unforeseen disruptive event, it could reduce TSMC's manufacturing capacity and cause the loss of important customers and thereby have an adverse, material impact on its operational and financial performance.

To cope with possible droughts resulted from severe climate change, TSMC implemented manufacturing process water saving, as well as building up industrial water recycling plants, using household water and cooperating with government to mitigate water shortage risk. As part of TSMC's business continuity plans, measures taken include water conservation measures, use of alternative water sources. Close monitoring of water situation including stress testing and exercises are carried out to validate our response plan.

TSMC has occasionally suffered power outages, dips or surges caused by difficulties encountered by its electricity supplier or other power consumers on the same power grid. Some of these incidents have resulted in interruptions to TSMC's operations. Such outages, shortages or interruptions in electricity supply could further be exacerbated by changes in the energy policy of the governments. If TSMC is unable to secure reliable and uninterrupted supply of electricity to power its manufacturing fabs, its ability to fill customers' orders would be jeopardized. Moreover, TSMC has encountered and may continue to encounter increases in the prices of utilities. For example, effective from April 1, 2024, TSMC is subject to a higher electricity tariff rate in Taiwan, which is estimated to increase by 25%, as compared to the tariff rate applicable to the Company in 2023. The increased prices for electricity could increase TSMC's manufacturing costs and therefore adversely impact TSMC's financial results. In addition, due to climate change, severe weather events, such as droughts, and any measures taken by governments in response to such severe weather events may materially affect TSMC's operations and its suppliers' production. For example, the measures taken by governments in response to droughts, including water rationing and conservation, may cause interruption to TSMC's operations or its expansion plans.

If such events were to occur over prolonged periods of time, TSMC's operations and financial performance may be materially adversely affected. Moreover, TSMC's future capacity expansions in Taiwan and elsewhere could be curtailed by utility shortages.

TSMC has further strengthened its business continuity management, which includes periodic risk assessments and mitigations, implementing centralized scenario planning for business continuity management exercises, and the establishment of taskforces. The taskforces define emergency response, crisis communication, recovery plans and preventative measures based on the thorough analysis of derivative effects and alternative solutions to ensure the impacts to lives, business operations and assets are minimized. TSMC reviews periodically its business continuity plans and refines them to reflect exercise results and implementation. In response to the impact of the earthquakes that occurs in Taiwan and Japan, TSMC continues to improve its earthquake emergency response, tool anchorage and seismic isolation facilities, and readiness for tool salvage and production recovery. These improvements have been integrated into new fab design and processes.

TSMC maintains a comprehensive risk management system dedicated to human safety, the conservation of natural resources and the protection of property. In order to cope effectively with emergencies and natural disasters, management at each facility has developed comprehensive plans and procedures that focus on risk prevention, emergency response, crisis management and business continuity. All TSMC manufacturing fabs have been ISO 14001 certified (environmental management) and ISO 45001 certified (occupational health and safety management). All manufacturing fabs in Taiwan have also been TOSHMS (Taiwan Occupational Safety and Health Management System) certified. New fabs will also attain the above certifications within 18 months after acquiring factory registration certification.

TSMC and many of its suppliers use flammable and toxic materials in their manufacturing processes and are therefore subject to risks that cannot be completely eliminated arising

from explosion, fire, or environmental influences. Although TSMC maintains multiple layers of risk prevention and protection, as well as fire and casualty insurance, TSMC's risk management and insurance coverage may not always be sufficient to cover all of its potential losses. If any of TSMC's fabs or vendor facilities were to be damaged or cease operations as a result of an explosion, fire or environmental causes, it could reduce the TSMC's manufacturing capacity leading to the loss of important sales and customers and have a negative impact on TSMC's financial performance.

TSMC continues to monitor key disruptive threats to its business operations and adapt the plans to ensure operational resilience.

Risks Associated with Capacity Expansion

TSMC performs long-term market demand forecasts on a regular basis for its products and services to manage its overall capacity. Based on market demand, the Company has continued to add capacity to meet market needs for its products and services, including in Taiwan, in Arizona, U.S., in Kumamoto, Japan and in Dresden, Germany.

Implementing these capacity expansion plans will increase its costs, and the increases may be substantial. For example, the Company would need to build new facilities, purchase additional equipment and hire and train personnel to operate the new equipment. If TSMC does not increase its net revenue accordingly, its financial performance may be adversely affected by these increased costs.

In addition, market conditions are dynamic, and TSMC's market demand forecasts may change significantly at any time. During periods of decreased demand, certain manufacturing lines or tools in some of the Company's manufacturing facilities may be suspended or shut down temporarily. However, if demand subsequently increases rapidly over a short period of time, TSMC may not be able to restore the capacity in a timely manner to take advantage of the upturn. In such circumstances, its financial performance and competitiveness may be adversely affected.

In order to mitigate the risk associated with capacity expansion, TSMC continuously watches for changes in market conditions and works closely with its customers. When market demand is not as expected, the Company tries to adjust its capacity plans in a timely manner to reduce the impact on its financial performance.

Risks Associated with Construction of New Fabs

The Company has multiple expansion projects that are currently underway, including the design and construction of new fabs worldwide. Global expansion has required and will continue to require considerable managerial, financial and other resources. The Company expects to face particular challenges in global expansion and operations, including but not limited to:

- higher costs associated with construction of new fabs, establishing supply chains for various materials in different overseas locations, the impact on the Company's ability to sustain its current level of productivity and manufacturing efficiency provided by its ecosystem of interconnected semiconductor fabs, employees and suppliers in the R.O.C., and recruiting and retaining talent in various overseas locations;
- labor shortages, interruptions in the supply chains for various materials, and construction issues, which could substantially delay the completion of the Company's expansion projects, and could further result in substantial additional costs or failure to meet its capacity expansion plans;
- disruptions to the Company's operations caused by natural or man-made disasters, including earthquakes, flooding, typhoons, droughts, tsunamis, sandstorms, wildfires, volcanic eruptions, fire, gas/chemical leakage or spill, pandemic, cyberattacks, supply chain disruption, geopolitical tensions, labor issues, sabotage, failure of critical facilities and equipment and disruptions in utilities, such as water, electricity and natural gas, etc.;
- scarcity of industrial-use land, which could limit the Company's future expansion of operations;
- compliance with applicable foreign laws and regulations, and the risk of penalties if the Company's practices are deemed not to be in compliance;
- challenges in managing information technology infrastructure in multiple locations and across different systems and risks of our information technology infrastructure succumbing to cyberattacks worldwide;
- adverse changes relating to government grants or other government incentives, including non-receipt, delay and potential claw backs of government subsidies;
- challenges in creating an inclusive workplace in new sites to embrace the cultural differences and managing the operation over large geographic distances and in context of different employment practices and labor laws and regulations;
- limited or insufficient intellectual property protection or difficulties enforcing the Company's rights to intellectual property; and
- exposure to different tax jurisdictions and potential adverse tax consequences.

If TSMC is unable to overcome the above challenges, the Company's business, financial condition and results of operations could be adversely affected.

Risks Associated with Sales Concentration

Over the years, the Company's customer profile and the nature of the Company's customers' business have changed dramatically. While TSMC generates revenue from hundreds of customers worldwide, TSMC's ten largest customers in 2022, 2023 and 2024 accounted for approximately, 68%, 70% and 76% of TSMC's net revenue in the respective year. TSMC's largest customer in 2022, 2023 and 2024 accounted for 23%, 25% and 22% of the Company's net revenue in the respective year. TSMC's second largest customer in 2022, 2023 and 2024 accounted for less than 10%, 11% and 12% of TSMC's net revenue in the respective year.

A more concentrated customer base will subject TSMC's revenue to seasonal demand fluctuations from the Company's large customers, and cause different seasonal patterns in the Company's business. This customer concentration results in part from the changing dynamics of the electronics industry with the structural shift to mobile and HPC devices and applications and software that provide the content for such devices.

There are only a limited number of customers who are successfully exploiting this new business model paradigm. Also, TSMC has seen changes in the nature of its customers' business models in response to this new business model paradigm. For example, there is a growing trend among system companies designing their own semiconductors and working directly with the semiconductor foundries, which makes their products and services more marketable in a changing consumer market. These shifting business models could lead to significant variations in our sales if the growth of their products and services, particularly in the AI sector, is volatile or not sustainable.

Also, since the global semiconductor industry has become increasingly competitive, some of TSMC's customers have engaged in industry consolidations in order to remain competitive. Such consolidations have taken the form of mergers and acquisitions. If more of TSMC's major customers consolidate, this will further decrease the overall number of the Company's customer pool. In addition, regulatory restrictions, such as export controls directed at TSMC's major customers, could impact the Company's ability to supply products to those customers or reduce those customers' demand for TSMC's products and services and thus impact their business operations.

The loss of, or significant curtailment of purchases by, one or more of the Company's top customers including curtailments due to increased competitive pressures, industry consolidation, changes in applicable regulatory restrictions, product designs, manufacturing sourcing or outsourcing policies or practices of these customers, the timing of customer inventory adjustments, or changes in its major customers' business models, may adversely affect TSMC's results of operations and financial condition.

Risks Associated with Purchasing Concentration

- **Raw Materials**

TSMC's production operations require that it obtain adequate supplies of raw materials, such as silicon wafers, gases, chemicals and photoresist, on a timely basis and at commercially reasonable prices. In the past, shortages in the supply of some materials, whether by specific suppliers or by the semiconductor industry generally, have resulted in occasional industry-wide price adjustments and delivery delays. Moreover, major natural disasters, trade barriers and political or economic turmoil, including military conflicts and inflation, occurring within the country of origin of such raw materials may also significantly disrupt the availability of such raw materials or increase their prices. Also, since TSMC procures some of its raw materials from sole-sourced suppliers, there is a risk that the Company's needs for such raw materials may not be met or that back-up supplies may not be readily available. Importation and domestic production limitations may also restrict the Company's ability to obtain adequate supplies of raw materials as well as materials of the necessary quality. In addition, recent trade tensions could result in increased prices or even unavailability of raw materials due to tariffs, export control or other non-tariff barriers. TSMC's revenue and earnings could be adversely affected if we are unable to obtain adequate supplies of the necessary raw materials in a timely manner or if there are significant increases in the costs of raw materials. To reduce the supply chain risk and to manage costs effectively, TSMC commits resources toward developing new supply sources and developing a future capacity plan with qualified raw material suppliers. Furthermore, the Company continually encourages its suppliers to reduce their supply chain risk by decentralizing production plants to improve their cost competitiveness and to support TSMC global demands in a timely fashion.

TSMC not only operates world-class manufacturing process and facilities but needs sufficient world-class high-quality raw materials. As a result, TSMC engages early and extensively with primary suppliers on managing quality and capacity issues so as to be prepared for any unexpected need to ramp up or curtail production. To streamline supply chain risk, the Company communicates early on with major material suppliers regarding quality and capacity topics and has formed a dedicated team for supplier plant onsite or remote audits to extend supply chain best practices to its upstream suppliers. In addition, in response to the rapid increase or decrease in production capacity of new products, TSMC has continued to improve its inventory monitoring system to achieve more accurate demand forecasts and ensure that the supply chain maintains sufficient inventory levels. The Company also performs supply chain risk assessments to ensure that critical suppliers meet various standards in labor, ethics, environmental, safety and health (ESH) practices and business continuity plans (BCPs).

• **Equipment**

The Company's operations and ongoing expansion plans depend on its ability to obtain necessary equipment and related services available from a limited number of suppliers. As a result, TSMC may encounter the situation of limited supply and/or long delivery cycles. To better manage its supply chain, the Company evaluates and projects delivery lead times to minimize the impact of supply chain risks on operating costs. TSMC has also implemented various collaborative business models and risk management contingencies with suppliers to ensure supply and shorten the procurement lead time. To enhance its sourcing capabilities for its global sites, the company has also taken steps to strengthen its understanding of local regulations, policies, and supply chains. However, if TSMC is unable to acquire in a timely manner the equipment and parts it needs, it may fail to successfully implement capacity expansion plans and exploit time sensitive business opportunities. Additionally, ongoing trade tensions could result in increased prices for, or even unavailability of, key equipment, through delay or denial of necessary export licenses, adoption of additional export control measures and other tariff or non-tariff barriers. If TSMC is unable to obtain equipment in a timely fashion to fulfill its customers' demand for technology and production capacity, or unable to do so at a reasonable cost, its financial condition and results of operations could be negatively impacted.

Risks Associated with Intellectual Property Rights

The Company's ability to compete successfully and to achieve future growth depends in part on the continued strength of its intellectual property portfolio. While the Company actively enforces and protects its intellectual property rights, there can be no assurance that its efforts will be adequate to prevent the misappropriation or improper use of its proprietary technologies, software, trade secrets or know-how. Also, the Company cannot assure you that, as its business or business models expand into new areas, it will be able to develop independently the technologies, patents, software, trade secrets or know-how necessary to conduct its business or that it can do so without unknowingly infringing the intellectual property rights of others. As a result, the Company may has to rely on, to a certain degree, licensed technologies and patent licenses from others. To the extent that the Company relies on licenses from others, there can be no assurance that it will be able to obtain any or all of the necessary licenses in the future on terms it considers reasonable or at all. The lack of necessary licenses could expose the Company to claims for damages and/or injunctions from third parties, as well as claims for indemnification by its customers in instances where it has contractually agreed to indemnify its customers against damages resulting from infringement claims.

The Company has received, from time to time, communications from third parties, including non-practicing entities and semiconductor companies, asserting that TSMC's technologies, its manufacturing processes, or the design IPs of the semiconductors made by TSMC or the use of those semiconductors by its customers may infringe their patents or other intellectual property rights. Because of the nature of the industry, its market position, and the expansion of its manufacturing operations outside of Taiwan, the Company may receive an increased number of such communications in the future. The assertions made and lawsuits initiated by litigious, well-funded, non-practicing entities are particularly aggressive in their monetary demand and in seeking court-issued injunctions. Such lawsuits and assertions may increase TSMC's cost of doing business and may potentially be extremely disruptive if these asserting entities succeed in blocking the trade of products made and services offered by TSMC. Also, with the expansion of its manufacturing operations into certain non-R.O.C. jurisdictions, it has faced increased challenges in managing risks of intellectual property misappropriation. Despite our efforts to adopt robust measures to mitigate the risk of intellectual property misappropriation

in such new jurisdictions, we cannot guarantee that the protection measures we adopted will be sufficient to prevent us from potential infringements by others, or at all.

If the Company fails to obtain or maintain certain technologies or intellectual property licenses or fails to prevent our intellectual property from being misappropriated and, if litigation relating to alleged intellectual property matters occurs, it could: (1) prevent the Company from manufacturing particular products or selling particular services or applying particular technologies; and (2) reduce our ability to compete effectively against entities benefiting from our misappropriated intellectual property, which could reduce its opportunities to generate revenue.

The Company has taken related measures to minimize potential loss of shareholder value arising from intellectual property claims and litigation filed against it. These measures include: strategically obtaining licenses from certain semiconductor and other technology companies as needed; timely securing intellectual property rights originating within and outside of TSMC for defensive and/or offensive protection of TSMC technology and business; and aggressively defending against baseless litigation.

Risks Associated with Litigious and Non-litigious Matters
As is the case with many companies in the semiconductor industry, the Company has received from time to time communications from third parties asserting that its technologies, its manufacturing processes, or the design of the semiconductors made by TSMC or the use of those semiconductors by its customers may infringe upon their patents or other intellectual property rights. These assertions have at times resulted in litigation by or against the Company and settlement payments by the Company. Irrespective of the validity of these claims, the Company could incur significant costs in the defense thereof or could suffer adverse effects on its operations. The Company is also subject to antitrust compliance requirements and scrutiny by governmental regulators in multiple jurisdictions. Any adverse results of such proceeding or other similar proceedings that may arise in those jurisdictions could harm TSMC's business and distract its management, and thereby have a material adverse effect on its results of operations or prospects, and subject the Company to potential significant legal liability.

Currently, TSMC's material legal proceeding is as follows:

In February 2025, Longitude Licensing Ltd. and Marlin Semiconductor Limited (collectively, "Marlin") filed complaints with the U.S. International Trade Commission ("ITC") and the U.S. District Court for the Eastern District of Texas alleging that TSMC and its customers infringe five U.S. patents. The ITC instituted an investigation on March 21, 2025. The outcome cannot be determined, and we cannot make a reliable estimate of the contingent liability at this time.

Other than the matter described above, as of the date of this Annual Report, TSMC is not currently a party to any other material legal proceedings.

Risks Associated with Mergers and Acquisitions
In 2024 and as of the date of this Annual Report, TSMC had not conducted any merger or acquisition.

Risks Associated with Talent Recruitment
TSMC relies on the continued services and contributions of its management team, as well as skilled technical and professional personnel. The Company's business could suffer from the inability to fulfill personnel needs with high quality professionals in a timely fashion caused by the loss of personnel, talent shortages, illegal talent poaching, immigration controls, or related changes in market demand for our products and services. Since there is fierce competition for talent recruitment, the Company cannot ensure timely fulfillment of its personnel demand.

In order to reduce the risk of talent shortage, TSMC encourages job rotation and employs an on-the-job training and certification system. In this way, employees can continuously learn and enhance their work efficiency and effectiveness in the workplace. Moreover, TSMC creates multiple recruitment channels and continues to hire diverse top-notch, talented professionals from Taiwan and overseas. At the same time, the Company continues to expand industry-academic cooperation to meet outstanding talent at an early phase to recruit them in the future.

Future R&D Plans and Expected R&D Spending
For additional details, see "5.2.7 Future R&D Plans" on page 105 of this Annual Report.

Changes in Corporate Reputation and Impact on the Company's Crisis Management
TSMC has established an excellent reputation worldwide based on its core values of integrity, commitment, innovation and customer trust. The Company's positive image also reflects

outstanding operations, rigorous corporate governance and dedication to sustainable responsibility by serving as a good corporate citizen. TSMC continues to pursue innovation in economic, environmental and social dimensions.

In 2024, TSMC was honored with numerous awards and citations for achievements in various areas including operations, corporate governance, patents, profit growth, investor relations, environmental protection, and corporate sustainability. The Company was selected as a part of the Dow Jones Sustainability World Index for the 24th consecutive year. TSMC won first place in *CommonWealth* magazine's Talent Sustainability award for the second year in a row and also received the Taiwan Institute for Sustainable Energy's Corporate Sustainability award for 2024. The Company earned top honors for the Taiwan Top Ten Sustainability Exemplary, as well as awards for Corporate Sustainability Report, climate leadership, circular economy leadership, supply chain management, sustainable water management and information security leadership. In addition, The S&P Global ranked TSMC in the top ten percent of its Sustainability Yearbook Award for 2024. The Company also ranked in the top five percent of the Taiwan Stock Exchange corporate governance evaluation. The Company was named a member of *Fortune*'s 2024 World's Most Admired Companies and the Fortune Global 500 and was rated as "Prime" by ISS ESG Corporate Rating; TSMC was a member of PricewaterhouseCoopers' Global Top 100 Companies by market capitalization and a member of the 2024 Carbon Clean 200™ list issued by the media research company Corporate Knights and the non-profit As You Sow organization. The Company was also honored as part of the World Benchmarking Alliance's SDG2000, the 2,000 Most Influential Companies, and in Morgan Stanley Capital International's All Country World Index ESG Leaders, while being ranked AAA by MSCI Research in its ESG Indexes.

To promote sustainability, TSMC's ESG Steering Committee, led by Chairman and Chief Executive Officer Dr. C.C. Wei, presented the fifth TSMC ESG Award in 2024, honoring internal organizations and divisions for tangible achievements in the Company's five ESG strategic directions: drive green manufacturing, build a responsible supply chain, create a healthy and inclusive workplace, develop talent, and care for the disadvantaged. At the same time, this award presentation encouraged all employees to propose new ideas for sustainability to be assessed for feasibility and potential incorporation in the Company's implementation plans. Compared to 3,166 sustainability proposals in the fourth year, the fifth annual ESG Award generated 4,330 innovative ideas, adding new energy to the Company's culture of sustainability.

TSMC is committed to maintaining operational resilience and business continuity by following standards that enable the Company to respond effectively to major risks of natural and man-made disasters, including earthquakes, floods, typhoons, droughts, tsunamis, sandstorms, wildfires, volcanic eruptions, fire, gas/chemical leaks or spills, pandemics, cyber-attacks, supply chain disruption, geopolitical tension, sabotage, failure of critical facilities and equipment, and shortages in utilities such as water, electricity and natural gas. TSMC also implements pre-crisis risk assessment, response procedures and recovery plans. In major incidents or crisis events, TSMC adheres to established crisis management guidelines. The central crisis command center (C4), led by the Chairman and CEO and consisting of senior executives from key functions, provides guidance and decision-making to ensure response readiness, including timely communication with key stakeholders. In 2024, TSMC received a rating of Low ESG Risk from Sustainalytics ESG Risk Ratings.

TSMC's environment, safety and health committee holds monthly meetings to coordinate with relevant departments in each fab to conduct emergency response drills and continuously improve their notification and operational procedures. This ensures clear channels of communication to stakeholders in case a crisis arises, with the public relations division serving as the designated gateway for external communications.

TSMC has further strengthened its business continuity management, which includes periodic risk assessments and mitigations, implementing centralized scenario planning for business continuity management exercises, and the establishment of task forces. TSMC has also deepened the risk management mechanisms of its overseas subsidiaries and offices by conducting risk management and business continuity management workshops and incident commander training. These efforts aim to fortify operational resilience and raise risk awareness of operational preparedness across TSMC's global footprint.

If the aforementioned crisis occurs, relevant personnel at TSMC's headquarters and global operating locations can deploy comprehensive emergency response measures to eliminate or minimize the impact on personnel safety, environment, property and operations. Responders also involve

the public relations division from the initial stage to ensure timely, clear, and consistent external communication regarding the situation.

Risks Associated with Change in Management

In 2024 and as of the date of this Annual Report, there were no such risks for TSMC.

Risks Regarding Non-Compliance with Export Control, Environmental and Climate Change Related Laws, Regulations and Accords, and Failure to Timely Obtain Requisite Approvals Necessary for Conducting Business

Because TSMC engages in manufacturing activities in multiple jurisdictions and conducts business with its customers located worldwide, such activities are subject to a myriad of governmental regulations. For example, the manufacturing, assembling and testing of TSMC's products require the use of equipment that is subject to export control laws and regulations, as well as metals, chemicals, and materials that are subject to environmental, climate-related, health and safety, and humanitarian forced labor prohibition and conflict-free sourcing laws, regulations and guidelines issued worldwide. The Company's failure to comply with any such laws or regulations, as amended from time to time, and its failure to comply with any information and document sharing requests from the relevant authorities in a timely manner could result in:

- significant penalties and legal liabilities, such as the denial of import or export permits or third party private lawsuits, criminal or administrative proceedings;
- the temporary or permanent suspension of production of the affected products;
- the temporary or permanent inability to procure or use certain production critical chemicals or materials;
- unfavorable alterations in TSMC's manufacturing, fabrication and assembly and test processes;
- challenges from its customers that place TSMC at a significant competitive disadvantage, such as loss of actual or potential sales contracts in case the Company is unable to satisfy the applicable legal standard or customer requirement;
- restrictions on TSMC's operations or sales;
- loss of tax benefits, including termination of current tax incentives, disqualification of tax credit application and repayment of the tax benefits that the Company is not entitled to; and
- damages to TSMC's goodwill and reputation.

TSMC's role in the semiconductor supply chain inherently limits its visibility and information available to it regarding the downstream use or user of final products that incorporate semiconductors manufactured by it. This constraint impedes TSMC's ability to fully ensure that semiconductors manufactured by it will not be diverted to unintended end use or end-user, including potentially by its business partners, or by third parties with an intent of circumvention. In addition, if TSMC or TSMC's business partners fail to obtain appropriate import, export or re-export licenses or permits or are found to have violated applicable export control or sanctions laws, TSMC may also be adversely affected, through reputational harm as well as other negative consequences, including government investigations and penalties resulting from relevant legal proceedings, as described in the above paragraph. In October 2024, TSMC notified relevant U.S. and Taiwan authorities that one type of its customer's chip manufactured by it might have been diverted to a restricted entity or incorporated into a restricted entity's product, and since then has been cooperating with the authorities' requests for additional information and documents. Despite TSMC's best efforts to comply with all relevant export control and sanctions laws and regulations, there is no assurance that its business activities will not be found incompliant with export control laws and regulations.

Complying with applicable laws and regulations, such as environmental and climate related laws and regulations, could also require TSMC, among other things, to do the following: (1) purchase, use or install remedial equipment; (2) implement remedial programs such as climate change mitigation programs and air pollution reduction plans; (3) modify its product designs and manufacturing processes, or incur other significant expenses such as paying any incurred carbon fees if the Company's emission levels exceed applicable thresholds, and obtaining renewable energy sources, renewable energy certificates or carbon credits, substitute raw materials or chemicals that may cost more or be less available for the Company's operations.

TSMC's inability to timely obtain approvals necessary for the conduct of its business could impair its operational and financial results. For example, if the Company is unable to timely obtain environmental related approvals needed to undertake the development and construction of a new fab or expansion project, then such inability may delay, limit, or increase the cost of its expansion plans that could also in turn adversely affect its business and operational results. In light of increased public interest in environmental issues, TSMC's operations and expansion plans may be adversely affected or delayed in response to public concern and social environmental pressures even if the Company complies with all applicable laws and regulations.

TSMC believes that climate change should be regarded as a significant corporate risk that must be managed to improve competitiveness. For TSMC's climate change related risks and control measures, see the Climate Change and Energy Management section under "7.2.1 Environmental Protection" on page 154-155 of this Annual Report.

6.2.4 Financial Risks

Economic Risks

Any future systemic political, economic or financial crisis or market volatility, including but not limited to interest rate and foreign exchange rate fluctuations, inflation or deflation or changes in economic, fiscal and monetary policies in major economies, could cause revenue or profits for the semiconductor industry as a whole to decline dramatically. If the economic conditions or financial conditions of the Company's customers were to deteriorate, the demand for its products and services may decrease and additional accounting related allowances may be required, which could reduce TSMC's operating income and net income.

- **Interest Rate Fluctuation**

TSMC is exposed to interest rate risks primarily in relation to its investment portfolio and outstanding debt. Changes in interest rates affect the interest earned on the Company's cash and cash equivalents and fixed income securities, the fair value of those securities, as well as the interest paid on its debt.

The objective of TSMC's investment policy is to achieve a return that will allow the Company to preserve principal and support liquidity requirements. The policy generally requires the Company to invest in investment grade securities and limits the amount of credit exposure to any one issuer. The majority of TSMC's fixed income investments are fixed-rate securities, which are classified as financial assets at fair value through other comprehensive income (FVTOCI) or amortized cost. For those fixed income investments classified as financial assets at FVTOCI, changes in their fair value are recognized through other comprehensive income; for those classified as financial assets at amortized cost, changes in their fair value are not reflected in asset values unless the assets are sold.

The majority of TSMC's debt is fixed-rate and measured at amortized cost and, as such, changes in interest rates would not affect future cash flows or the carrying amount.

TSMC has entered and may in the future enter into interest rate derivatives to partially hedge interest rate risk on its fixed income investments and anticipated debt issuance. However, these hedges can offset only a limited portion of the financial impact from movements in interest rates.

- **Foreign Exchange Volatility**

Substantially all of TSMC's sales are denominated in U.S. dollars and over half of its capital expenditures are denominated in currencies other than the NT dollar, primarily in U.S. dollars, Euros and Japanese yen. As a result, any significant fluctuations to its disadvantage in the exchange rate of the NT dollar against such currencies, in particular a weakening of the U.S. dollar against the NT dollar, would have an adverse impact on the Company's revenue and operating profit as expressed in NT dollars. For example, every one percent depreciation of the U.S. dollar against the NT dollar would result in an approximately 0.4 percentage point decrease in the Company's operating margin based on its 2024 results.

Conversely, if the U.S. dollar appreciates significantly versus other major currencies, the demand for the products and services of TSMC's customers and for its goods and services will likely decrease, which will negatively affect the Company's revenue. TSMC uses foreign currency derivatives contracts, such as currency forwards or currency swaps, and non-derivative financial instruments, such as foreign currency denominated debts, to protect against currency exchange rate risks associated with non-NT dollar-denominated monetary assets and liabilities, net investments in foreign operations, and certain forecasted transactions. These hedges reduce, but do not entirely eliminate, the effect of foreign currency exchange rate movements on its assets and liabilities.

Fluctuations in the exchange rate between the U.S. dollar and the NT dollar may affect the U.S. dollar value of the Company's common shares and the market price of the Company's American Depositary Shares (ADSs) as well as any cash dividends paid in NT dollars on TSMC's common shares represented by ADSs.

- **Inflation**

TSMC is subject to the effects of inflation through increases in the cost of items such as raw materials and equipment used to produce its products, wage expenses and employee benefits, electricity costs, and costs in relation to construction of fabs. Although TSMC does not believe that inflation has had a material impact on its financial position or results of operations to date, a high inflation in the future may have an adverse effect on the Company's ability to maintain current levels of profit margin if the selling prices of its products and services do not increase with these increased costs.

- **Amendments to Tax Regulations or Implementation of New Tax Laws**

Any amendments to existing tax regulations or the implementation of any new tax laws in the jurisdictions in which TSMC operates its business may have an adverse effect on its net income.

While the Company is subject to tax laws and regulations in various jurisdictions in which it operates or conducts business, TSMC's principal operations are in the R.O.C. and it is exposed primarily to taxes levied by the R.O.C. government. Any unfavorable changes of tax laws and regulations in these jurisdictions could increase TSMC's effective tax rate and adversely affect its operating results. Further, changes in the tax laws of foreign jurisdictions could arise as a result of the base erosion and profit shifting ("BEPS") project that was undertaken by the Organization for Economic Cooperation and Development (OECD). These changes may increase tax uncertainty and have an adverse effect on TSMC's operating results.

In order to control tax risk, the Company closely monitors all domestic and foreign governmental policies and regulations that might impact its financial operations. TSMC has established risk management procedures to collect information, analyze potential tax implications, and develop countermeasures.

Risks Associated with External Financing

In addition, sufficient external financing may not be available to the Company on a timely basis, on commercially reasonable terms to the Company, or at all. If sufficient external financing is not available when TSMC needs such financing to meet its capital requirements, the Company may be forced to curtail its expansion, modify plans or delay the deployment of new or expanded services until it obtains such financing. In conclusion, any of these events, including any future global systemic crisis or further escalation of trade tensions as described above, could materially and adversely affect our results of operations.

Risks Associated with High-Risk/Highly Leveraged Investments; Lending, Endorsements, and Guarantees for Other Parties; and Financial Derivative Transactions

In 2024 and as of the date of this Annual Report, TSMC made no high-risk or highly leveraged financial investments. All financial derivative transactions engaged by TSMC were strictly for hedging and not for trading or speculative purposes. All guarantees and intercompany loans provided by TSMC and its subsidiaries were solely for TSMC and/or its wholly-owned subsidiaries. All guarantees and intercompany loans were in compliance with relevant rules and regulations.

To manage risks of various financial transactions, TSMC has established internal control policies and procedures based on sound financial and business practices, all in compliance with the relevant rules and regulations issued by the R.O.C. Financial Supervisory Commission. TSMC's policies and procedures include Procedures for Financial Derivatives Transactions, Procedures for Lending Funds to Other Parties, Procedures for Acquisition or Disposal of Assets, and Procedures for Endorsement and Guarantee.

Risks Associated with Impairment Charges

Under Taiwan-IFRSs, TSMC is required to evaluate its tangible assets, right-of-use assets and intangible assets for impairment whenever triggering events or changes in circumstances indicate that the asset may be impaired. If certain criteria are met, TSMC is required to record an impairment charge. TSMC is not able to estimate the extent or timing of any impairment charge for future years. Any impairment charge required may have a material adverse effect on the Company's net income.

The determination of an impairment charge at any given time is mainly based on the projected results of operations over several years subsequent to that time. Consequently, an impairment charge is more likely to occur during a period when the Company's operating results are otherwise already depressed. In the process of evaluating the potential impairment of tangible assets, right-of-use assets and intangible assets other than goodwill, TSMC determines the independent cash flows, useful lives, expected future revenue and expenses related to the specific asset groups with the consideration of the nature of semiconductor industry. Any change in these estimates based on changed economic conditions or business strategies could result in significant impairment charges or reversal in future years.

6.2.5 Other Risks

Potential Impact and Risks Associated with Sales of Significant Numbers of Shares by TSMC's Directors, and/or Shareholders Who Own 10% or More of TSMC's Total Outstanding Shares

The value of TSMC shareholders' investment may be reduced by possible future sales of TSMC shares owned by major shareholders.

As of the date of this Annual Report, no single shareholder owned 10% or more of TSMC's total outstanding shares.

Risks of Trade Policies

As TSMC's revenue is primarily derived from sales to major economies in the world (please refer to "2.2.4 TSMC Position, Differentiation and Strategy" on page 17-19 of this Annual Report), any changes in the trade policies (such as the increase of tariffs on certain products, the implementation of import and export controls, and the adoption of other trade barriers) of such major economies can affect the sales of TSMC or its customers and thereby affect TSMC's operating results. For example, U.S. President Donald Trump announced in 2025 an intention to impose more expansive tariffs on imports into the United States. Any tariffs imposed on imports of semiconductors and products incorporating chips into the United States may result in increased costs for purchasing such products, which may, in turn, lead to decreased demand for TSMC's products and services and adversely affect its business and future growth.

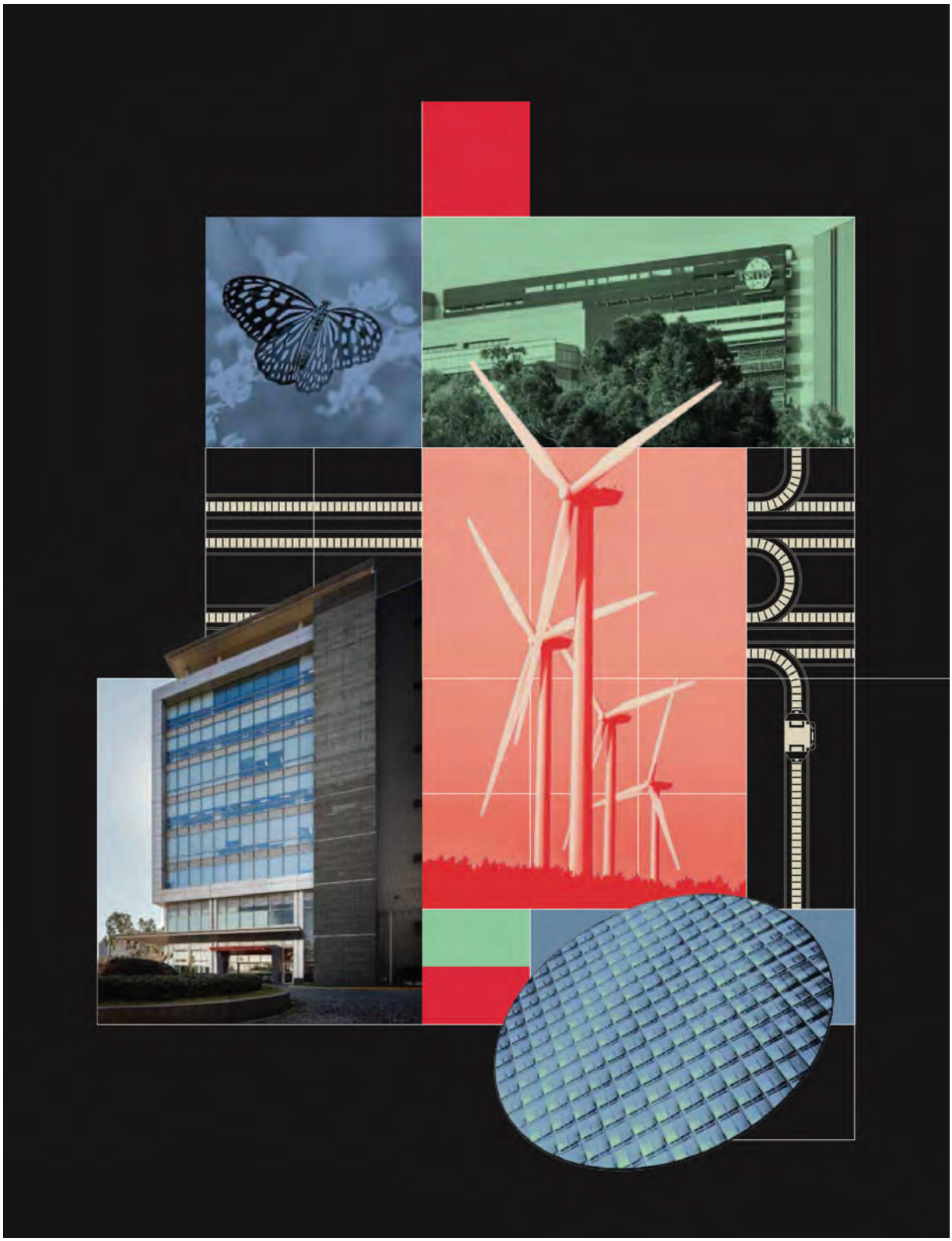
Also, any increase in the use of export control restrictions and sanctions to target certain countries and entities, any expansion of the extraterritorial jurisdiction of such measures, or complete or partial ban on semiconductor products sales to certain entities could impact not only TSMC's ability to continue supplying products to those customers, but also our customers' demand for our products, and could even lead to changes in semiconductor supply chains.

For example, the U.S. tightened its export control measures against Huawei Technology Co. Ltd. and its affiliates (collectively, "Huawei") in 2020. To comply with relevant laws and regulations, TSMC has discontinued shipment of products to Huawei since September 2020. In October 2022 and October 2023, the U.S. adopted additional export controls (the "October Rules") over specified countries (including China) under the U.S. Export Administration Regulations ("U.S. EAR") on certain advanced computing integrated circuits ("ICs"), computer commodities that contain such ICs, and certain semiconductor manufacturing items, as well as controls on transactions involving items for supercomputer and semiconductor manufacturing end-uses. The controls impose license requirements for items subject to the U.S. EAR where the items are destined to a semiconductor fabrication facility in China that fabricates ICs meeting specified advanced node parameters as well as for U.S. persons' activities supporting such facility or semiconductor manufacturing items. In response, TSMC obtained from the U.S. Department of Commerce a Validated End-User (the "VEU") authorization for TSMC's fab located in Nanjing, China, which is a permanent authorization that allows TSMC's fab in Nanjing to receive exports of eligible items from the U.S. without separate licenses. However, there is no assurance that the VEU authorization TSMC obtained will not be terminated in the future. The restrictions imposed by the October Rules on advanced computing ICs are further reinforced by the U.S.' new rules issued in January 2025. Under the new rules, TSMC may need to obtain an export license prior to shipping products using 16-nanometer or below process to any global destination unless specific conditions are met. As a result, shipments of certain products may be delayed or prohibited due to the license requirements and the Company's financial results may be adversely affected.

On the other hand, measures adopted by an affected country to counteract the impact of another country's actions or regulations could lead to significant legal liability to multinational corporations including our own. For example, in January 2021, China adopted a blocking statute that, among other matters, entitles Chinese entities incurring damages from a multinational's compliance with foreign laws to seek civil remedies.

Imposition of trade barriers, including protectionist measures, sanctions and import and export controls (including without limitation the export control measures mentioned in the foregoing paragraph), could increase TSMC's manufacturing costs, limit TSMC's access to certain supplies, make TSMC's pricing less competitive, and impact the sales of TSMC or its customers. In 2024 and as of the date of this Annual Report, the Company's current results of operations have not been materially affected by the expanded export control regulations or the novel rules or measures adopted to counteract them. Nevertheless, depending on future developments in global trade tensions, such regulations, rules, or measures may have an adverse impact on the Company's business and operations, and TSMC may incur significant legal liability and financial losses as a result.

TSMC continues to monitor the recent shifts in trade policies and measures among the relevant major economies and will take corresponding responsive actions in accordance with subsequent developments.



7

Corporate Sustainability (ESG)

TSMC is the only semiconductor company to be selected as a component of the Dow Jones Sustainability Indices for 24 consecutive years.

7.1 Overview

In pursuit of its core business achievements, TSMC remains committed to responsible management, guided by three key missions: Integrity, Strengthen Environmental Protection, and Care for the Underprivileged. The Company actively engages in ESG (environmental, social, governance) management, collaborating with stakeholders including employees, shareholders/investors, customers, suppliers/contractors, governments/associations, and communities. TSMC aspires to catalyze sustained positive societal change, fostering shared value for a sustainable future.

Guidance for Implementing ESG

With the vision of Uplifting Society, TSMC's ESG Policy serves as the paramount guiding principle for sustainable development. The ESG Matrix, thoughtfully conceived by the Company's founder, Dr. Morris Chang, delineates the Company's ESG scope. The horizontal axis represents TSMC's aspiration to set sustainability benchmarks in seven domains: morality, business ethics, economy, rule of law, sustainability, work-life balance/happiness, and philanthropy. Conversely, the vertical axis showcases specific actions, including integrity, law compliance, anti-corruption/anti-bribery/anti-cronyism, environmental protection/climate control/energy conservation, corporate governance, providing well-paying jobs, generating good shareholder return, employee work-life balance, encouraging innovation and a good work environment. Through the TSMC Charity Foundation and the TSMC Education and Culture Foundation, the Company actively engages in societal participation, laying the groundwork for a harmonious and virtuous society.

TSMC ESG Matrix

TSMC \ Society	Morality	Business Ethics	Economy	Rule of Law	Sustainability	Work-life Balance/ Happiness	Philanthropy
Integrity	V	V					
Law Compliance				V			
Anti-Corruption Anti-Bribery Anti-Cronyism	V	V		V			
Environmental Protection Climate Control Energy Conservation				V	V		
Corporate Governance		V	V	V			
Provide Well-Paying Jobs			V			V	
Good Shareholder Return			V				
Employees' Work-Life Balance						V	
Encourage Innovation		V	V				
Good Work Environment						V	
TSMC Charity Foundation					V	V	V
TSMC Education and Culture Foundation					V	V	V

ESG Management

The ESG Steering Committee at TSMC serves as the apex of ESG decision-making, chaired by the Company's Chairman, with the Chairperson of the ESG Committee acting as the executive secretary. This committee, comprising senior executives from a wide variety of functions, collaboratively examines ESG issues critical to the Company's operations and establishes short-, medium-, and long-term strategic directions and development goals, aligning with the United Nations sustainable development goals (SDGs), while leveraging the Company's core strengths.

The ESG Committee, operating under the guidance of the ESG Steering Committee's resolutions, is responsible for integrating resources and coordinating communication across various departments. It oversees the dedicated ESG department (established in 2019 and renamed in 2021) and engages cross-organizational representatives to collaboratively identify sustainability issues pertinent to the Company's operations and stakeholders' interests. Task forces are established based on identified issues to

develop corresponding strategies, goals, and action plans. Progress is monitored through quarterly meetings to ensure effective implementation of ESG strategies in TSMC's daily operations. Additionally, the Chairperson of the ESG Committee provides quarterly updates on execution outcomes and future plans to the Board of Directors/Nominating, Corporate Governance, and Sustainability Committee. This ongoing communication aims to enhance TSMC's sustainability management policies, strategies, and objectives, fostering sustainable development.

In 2024, TSMC focused primarily on green manufacturing and supply chain management (including climate and nature risk/opportunity identification and actions, carbon and water footprint management, the Eco Plus! Ecological Harmony Program, and value chain decarbonization), inclusive workplaces and talent development (including conducting workplace human rights climate surveys and strengthening semiconductor industry-academia collaboration). Public welfare contributions (including Teach and Learn Program and Vocational Training Project,) alongside planning and executing ESG budgets for 2024 and 2025. TSMC employs sustainability reports as a tool for ESG management and has updated themed reports such as the Climate and Nature Report, the UN's SDG Action Report, the Materiality Analysis Report, the Sustainability Impact Valuation Report, and the Human Rights Report.

Stakeholder Engagement

TSMC respects all stakeholders' rights and interests in sustainability issues through diverse communication platforms. These channels include a dedicated ESG website, ESG mailbox, Investor Relations mailbox, employee feedback channels, irregular business conduct reporting system, and the supply chain worker grievance channel. TSMC systematically manages and addresses stakeholders' concerns through identification, prioritization, and validation.

Stakeholders and Communication Channels in 2024

Stakeholders	Communication Channels
Employees	•Employee Opinion Survey on Company Core Values and Employee Engagement Survey •Workplace Human Rights Climate Survey and Risk-Aware Culture Survey •Employee training (forums, lectures, physical and online courses) •Communication meetings for various levels of managers and employees, e.g. the executives communication meeting, skip levels and communication meeting in individual functions or divisions •Human Resources Business Partner Team •Corporate intranet, internal emails, and other announcement channels (such as promotion posters at facilities), TSMC eSilicon Garden Stories •Diverse communication channels, such as Silicon Garden Meeting (labor-management meeting), Ombudsman System, Whistleblower Procedures, Irregular Business Conduct Reporting, Sexual Harassment Investigation Committee, Fab Caring Circle, Employee Opinion Box, Wellness Center, wellness website, employee PIP & IT Security mailbox and hotline, Occupational Disease Investigation Committee and Occupational Safety and Health Feedback Channels, etc.
Shareholders/Investors	•General shareholders' meeting •Annual Reports, Sustainability Reports, Theme Reports (Climate and Nature Report, UN SDGs Action Reports, Materiality Analysis Reports, Sustainability Impact Valuation Report, Human Rights Report), and Form 20-F with the U.S. Securities and Exchange Commission •Earnings conference •Domestic and overseas broker conference •Face-to-face meetings, video conference calls, telephone conference calls and Investor Relations mailbox •Major announcements on the Market Observation Post System, and corporate press releases on the Company's website
Customers	•Customer satisfaction survey •Business and technology assessment •Customer meetings •Customer visits/audits
Suppliers/Contractors	•Supplier Code of Conduct promotion •Supplier Self-Assessment Questionnaire (SAQ) •Supply chain environment, safety and health training •Supplier Human Rights Enhancement Workshop •Sustainable Supply Chain Environment, Safety and Health Forum, Supply Chain ESH Technical Forum •Carbon reduction follow-up meeting with major emission contributors •Supplier meetings •On-site support and audit •Supply Chain Employee Grievance Channel •Supply Online 360 Global Responsible Supply Chain Platform
Government/Industry Associations	•Industry association communication platform •Official correspondence, documents, emails and visits •Offer industry experience and advice, and keynote speech •Conferences (e.g., briefings, public hearings, symposia, seminars, meetups, phone conference)
Communities	•Volunteer cadre meetings and volunteer activities and services •Project collaboration and visit •Sponsorship of charity projects and educational projects •"Sending Love" charity platform •TSMC Education and Culture Foundation and TSMC Charity Foundation websites •ESG website, ESG Newsletter, ESG mailbox and social media (Facebook and LinkedIn) •Irregular Business Conduct Reporting System

Responsibilities of ESG Steering Committee and ESG Committee Members

Committee Members	Responsibilities	Stakeholders
Business Development	Shaping an energy-efficient technology roadmap; building alliance with customers to foster smarter and greener product innovations; establishing and promoting TSMC as a responsible techniology thought leader, and sharing its experiences and achievements	Employees Customers Communities
Customer Service	Customers' service and satisfaction, customer trust, customer confidentiality, Responsible Business Alliance and its code of conduct	Customers Government/Industry Associations
Environment, Safety and Health	Environmental policy and management system, climate change mitigation and adaption, pollution prevention, energy consumption efficiency, carbon emissions and carbon rights management, product environmental responsibility, response mechanism for environmental issues, environmental spending, green supply chain, policy and management systems for occupational health and safety, workplace health and safety, occupational disease prevention and health promotion, communication of ESH regulations	Employees Shareholders/Investors Customers Suppliers/Contractors Government/Industry Associations Communities
Finance	Financial disclosure, dividend policy, tax strategy	Employees Shareholders/Investors Customers Suppliers/Contractors Government/Industry Associations
Human Resources	Inclusive workplace, talent attraction and retention, talent development	Employees Government/Industry Associations Communities
Information Technology and Information Security	Information security	Employees Shareholders/Investors Customers Suppliers/Contractors Government/Industry Associations
Investor Relations	Resolving issues of stakeholder concern, establishing trusting long-term relationships, effective two-way communication, annual report production	Shareholders/Investors
Legal	Corporate governance, code of conduct, legal compliance (including fair competition, privacy and personal information, and protection for whistle-blowers), intellectual property, protection of confidential information	Employees Government/Industry Associations Communities
Materials Management	Materials and supply chain risk management, supplier management, conflict minerals, Responsible Business Alliance and its code of conduct, circular resources	Shareholders/Investors Customers Suppliers/Contractors Government/Industry Associations
Operations	Operational eco-efficiency, pollution prevention, water positivity and risk management, green manufacturing	Shareholders/Investors Customers Suppliers/Contractors
Public Relations	Stakeholder engagement, mechanism for reflecting issues of social concern, media relations	Employees Shareholders/Investors Customers Suppliers/Contractors Government/Industry Associations Communities
Quality and Reliability	Product quality and reliability, product recall mechanism	Customers Suppliers/Contractors
Research and Development	Innovation management, green products	Employees Customers Suppliers/Contractors Government/Industry Associations
Risk Management	Risk management, crisis management, emergency response and action plan	Employees Shareholders/Investors Customers Suppliers/Contractors
TSMC Education and Culture Foundation	Cultivate young generation, promote educational collaboration, promote arts and culture	Communities
TSMC Charity Foundation	Empower education, care for the elderly, protect the Environment	Communities

TSMC actively engages with its diverse stakeholders to understand their insights and expectations while aligning with international sustainability standards. For 26 consecutive years, TSMC has published its non-financial report. The Company conducts materiality analyses based on Global Reporting Initiative (GRI) 3: Material Topics 2021, incorporating the dynamic materiality concept proposed by the World Economic Forum (WEF) and the dual materiality principle recommended by the European Sustainability Reporting Standards (ESRS). The analysis, which includes TSMC's facilities in Taiwan (headquarters, wafer fabs, and advanced backend fabs), TSMC China, TSMC Nanjing, TSMC Arizona, TSMC Washington, LLC, Japan Advanced Semiconductor Manufacturing, Inc., VisEra, and other subsidiaries, applies the concepts of impact, risk, and opportunity in conjunction with TSMC's Risk Management Policy. This process identifies ESG issues and potential challenges with significant implications for operations, enabling TSMC to adjust its sustainability strategies and objectives. By employing innovative thinking and concrete actions, TSMC effectively implements risk mitigation measures, enhances organizational resilience, and deepens its capacity for sustainable development.

In addition to the GRI Standards, the TSMC Sustainability Report aligns with the Task Force on Climate-related Financial Disclosures (TCFD) Recommendations, Taskforce on Nature-related Financial Disclosures (TNFD) Recommendations, Sustainability Accounting Standards Board (SASB) Standards, the AA1000 Accountability Principles as well as utilizes the Impact Reporting and Investment Standards (IRIS+) to evaluate its public welfare projects. The report is independently verified by DNV Business Assurance Co. Ltd., ensuring that the verification scope and criteria adhere to the DNV VeriSustain™ Protocol, the GRI Standards, SASB Standards, and the TCFD framework, thereby ensuring that the disclosed sustainability information meets stakeholder needs through a diversified standards and verification mechanism.

In response to global political, economic, and environmental changes, TSMC proactively fulfills its corporate citizenship responsibilities by aligning with the UN SDGs and examining their relevance to its operations. The Company has set long-term goals for 2030, with specific actions centered around SDG 17: Partnerships for the Goals. TSMC collaborates closely with internal and external stakeholders and business partners throughout the value chain to continually explore opportunities for development across economic, environmental, and social dimensions. As the only semiconductor company to be included in the Dow Jones Sustainability World Index for 24 consecutive years, TSMC is committed to driving sustainable innovation. The Company focuses on ESG in five directions: drive green manufacturing, build a responsible supply chain, create a healthy and inclusive workplace develop talent, and care for the underprivileged. Through these efforts, TSMC aims to generate substantial and positive impacts, fostering a future of shared prosperity.

2024 ESG Awards and Ratings

Category	Organization	Awards and Ratings
Overall ESG	Dow Jones Sustainability Indices (DJSI)	•Dow Jones Sustainability World Index for the 24th consecutive year
	MSCI ESG Indexes	•MSCI ACWI ESG Leaders Index component •MSCI ESG Research – AAA Ratings •MSCI ACWI SRI Index component •MSCI Emerging Markets ESG Leaders Index
	Sustainalytics	•Company ESG Risk Ratings: Low ESG Risk – Semiconductor Industry
	ISS ESG	•"Prime" Rated by ISS ESG Corporate Rating
	FTSE4Good Index	•FTSE4Good Emerging Index component •FTSE4Good All-World Index component •FTSE4Good TIP Taiwan ESG Index component
	World Benchmarking Alliance (WBA)	•SDG2000 – The 2,000 Most Influential Companies
	S&P Global	•The Sustainability Yearbook Award 2024 – Top 10% S&P Global ESG Score
	CommonWealth Magazine	•Excellence in Corporate Social Responsibility
	Taiwan Institute for Sustainable Energy	•The Most Prestigious Sustainability Award – Top Ten Domestic Corporates for the 9th consecutive year •Best Sustainability Report Award •Cyclical Economy Leadership Award •Information Security Leadership Award •Sustainable Supply Chain Leadership Award •Water Management Leadership Award •Climate Leadership Award
	Morningstar	•The Best Sustainable Companies to Own in 2025

(Continued)

Category	Organization	Awards and Ratings
Economy and Governance	Extel 2024 All-Asia Executive Team	•Most Honored Company (Technology/Semiconductors) – 1st Place (buy-side and sell-side) – All-Asia •Best CEO (Technology/Semiconductors) – 1st Place (buy-side and sell-side) – All-Asia •Best CFO (Technology/Semiconductors) – 1st Place (buy-side and sell-side) – All-Asia •Best IR Professionals (Technology/Semiconductors) – 1st Place (buy-side and sell-side) – All-Asia •Best IR Team (Technology/Semiconductors) – 1st Place (buy-side and sell-side) – All-Asia •Best IR Program (Technology/Semiconductors) – 1st Place (buy-side and sell-side) – All-Asia •Best ESG Program (Technology/Semiconductors) – 1st Place (buy-side and sell-side) – All-Asia •Best Company Board (Technology/Semiconductors) – 1st Place (buy-side and sell-side) – All-Asia
	IFI Claims Patent Services	•Ranked as 2nd in 2024 Top 50 US Patent Assignees
	Forbes	•Forbes Global 2,000
	FutureBrand Index	•FutureBrand Index 2024
	FORTUNE	•2024 World's Most Admired Companies •Fortune Global 500
	Brand Finance	•Brand Finance Global 500
	Business Today	•Top 1,000 Enterprises in Taiwan, Hong Kong and Mainland China
	Taiwan Stock Exchange	•Top 5% in Corporate Governance Evaluation of Listed Companies for the 10th consecutive year
	PricewaterhouseCoopers	•Global Top 100 Companies by Market Capitalization for the 12th consecutive year
	R.O.C. Ministry of Economic Affairs Intellectual Property Office	•Ranked No. 1 in Taiwan Patent Applications for the 9th consecutive year •Ranked No. 1 in Taiwan Patent Grants for the 5th consecutive year
	Industrial Development Administration, Ministry of Economic Affairs	•Taiwan Intellectual Property Management System (TIPS) AAA certification
	Germany Federal Office for Information Security	•Common Criteria, ISO/IEC 15408- EAL6 Site Certification
	Corporate Synergy Development Center	•Taiwan Continuous Improvement Award – Gold Tower Award – Fab 3, Fab 8, Fab 12A, Fab14A, Fab15B, Fab 16, EBO •Taiwan Continuous Improvement Award – Silver Tower Award – Fab18A & FAC •Taiwan Continuous Improvement Award – Fab 12A, Fab 14A, Fab 16
	Clarivate	•2024 Top 100 Global Innovators
	LexisNexis	•Innovation Momentum 2024: The Global Top 100
Environment, Safety and Health	Corporate Knights & As You Sow	•2024 Carbon Clean 200™ List
	CDP	•Climate Change B Ratings •Water Security A- Ratings
	Alliance for Water Stewardship, AWS	•"Platinum" Class Certification for the 5th consecutive year – Fab 5, Fab 6, Fab 12A, Fab 12B, Fab 14P5, Fab 14P6, Fab 14P7, Fab 15A, Fab 15B, AP3
	U.S. Green Building Council	•Leadership in Energy and Environmental Design (LEED) – "Gold" Class Certification – Fab 14PB Manufacturing Facility, Fab 23P1 Manufacturing Facility, AP6A Manufacturing Facility, AP6C Manufacturing Facility, Fab 12PB Office, Fab 23 Office, AP6A Office
	UL Solutions	•Platinum Rating for UL 2799 Standard
	Ministry of Environment, R.O.C.	•National Enterprise Environmental Protection Award – Fab 14B, Fab 15B, Fab 18A, Fab 8 •Green Chemistry Application and Innovation Award – Fab 14B, Fab 18P1, AP3 •Sustainable Water Innovation Award – TSMC S.T.S.P. Reclaimed Water Plant •The Best Companies of Resources Cycle – AP3
Society	Forbes	•2024 World's Best Employers
	Occupational Safety and Health Administration, Ministry of Labor, R.O.C.	•National Occupational Safety and Health Award – Enterprise Benchmarking Award for the 3rd consecutive year
	CommonWealth Magazine	•Talent Sustainability Award: Large Enterprise (Manufacturing) 1st Place

7.2 Environmental, Safety and Health (ESH) Management

TSMC believes its environmental, safety and health (ESH) practices must not only meet legal requirements but should also align with internationally recognized best practices. The Company's ESH policies aim to achieve "zero incidents" and "environmental sustainability" and to make TSMC a world-class organization in environmental, safety and health management. The Company's strategies for attaining these goals are to comply with regulations, promote safety and health, strengthen recycling and pollution prevention, manage ESH risks, instill an ESH culture, establish a green supply chain, and fulfill its related corporate citizen responsibilities.

All TSMC and its subsidiaries' manufacturing facilities have received ISO 14001: 2015 certification for environmental management systems and ISO 45001: 2018 certification for occupational safety and health management systems. TSMC and its subsidiary fabs in Taiwan have each been certified by the Taiwan Occupational Safety and Health Management System (TOSHMS). All the

above certifications have been maintained and remain valid. Per TSMC policy, all new facilities are required to attain the aforementioned certifications within 18 months after receiving their operating license.

To reduce overall environmental, safety and health risks, TSMC strives for continuous improvement and actively seeks to enhance climate-change management, pollution prevention and control, power and resource conservation, waste reduction and recycling, safety and health management, and fire and explosion prevention, as well as to minimize the impact of earthquake damage.

In order to meet regulatory and customer requirements for the management of hazardous materials, TSMC has adopted the IECQ QC 080000 hazardous substance process management (HSPM) system. All TSMC fabs have been QC 080000 certified and have maintained validity since 2006. Through the establishment of QC 080000, TSMC ensures that its products comply with customer requirements and international regulations including the European Union's Restriction of Hazardous Substances (RoHS) Directive, the EU's Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), the Montreal Protocol on Substances that Deplete the Ozone Layer, the "halogen-free in electronic products" initiative, perfluorooctane sulfonates (PFOS), perfluorooctanoic acid (PFOA) and related substances restriction standards. In addition, TSMC continuously promote its reduction plan for the use of the hazardous substance N-methylpyrrolidinone (NMP) and has completed NMP phase-out project for the etching process in overseas subsidiaries by the end of 2024, achieving its annual goal.

TSMC began implementing the ISO 50001 energy management system for continuous improvement in energy conservation in 2011. By 2022, all TSMC and its subsidiaries' manufacturing facilities had received ISO 50001 certification and have maintained it except for TSMC Washington in the U.S, which has been verified by a third party and plans to receive this certification in 2025.

Aiming to establish the healthiest possible workplace, in 2017 TSMC formed a corporate-level health promotion committee led by executives at the vice president level to address on an ad-hoc basis occupational disease cases or other health issues. The committee members included fab directors, managers of safety and health department, and representatives from wellness, HR and legal affairs divisions. External experts were also invited to discuss the potential risks of occupational diseases in the semiconductor manufacturing process and prevention plans for such diseases. To mitigate health risks to employees, suppliers and contractors in the workplace, TSMC has adopted rigorous safety and health control measures focused on preventing occupational injuries and diseases and promoting employee safety, physical and mental health.

To minimize supply chain risk and fulfill its corporate citizen responsibility, TSMC not only follows ESH best practices internally but also strives to improve the ESH performance of its suppliers and contractors through audits and counselling.

TSMC uses priority work management and self-management to govern services provided by contractors. The Company requires contractors performing level-one high-risk operations to complete certification for technicians and to establish their own ISO 45001 safety and health management system. The emphasis on self-management nurtures the sense of responsibility, with the goal of promoting safety awareness and technical improvement for all contractors in the industry. For onsite contractor personnel, TSMC not only provides standardized courses on safety and health but has also established interactive online training and increased the frequency of such courses to improve effectiveness and safety awareness. To ensure that the Company's safety protocols are accurately delivered to contractors on a timely basis, TSMC has established a digital platform for mutual communication and blue book for contractors' safety, health and environmental protection so that onsite operational risks can be mitigated.

TSMC collaborates with suppliers to undertake sustainable supply chain management, which includes establishing sustainable standards for suppliers, developing audit plans, conducting audits and tracking improvements, providing guidance and training, and offering further assistances to underperforming suppliers. Key focus in 2024 include enhancing suppliers' capabilities in environmental, safety, and health (ESH) technologies, improving fire response and water conservation capabilities, and increasing the understanding of biodiversity issues. To achieve these, the Company held the fire emergency response workshops (62 participants from 52 suppliers) and continued the supplier ESH improvement program for senior executives (50 participants from nine suppliers). Additionally, for nine consecutive years, suppliers have been invited to observe TSMC's annual emergency response drills (217 participants from 212 suppliers) and the Company's ESH sustainability forum focused on successful case sharing (360 participants from 152 suppliers). TSMC also conducted ESH audits at supplier manufacturing sites and

actively assists suppliers in improving their ESH performance. A new ESH Technical Forum was introduced to provide solutions to common ESH issues (199 participants from 175 suppliers). Furthermore, the Company requested that suppliers conduct a carbon emissions inventory and encouraged them to reduce these emissions and implement measures to save energy, conserve water and reduce waste.

7.2.1 Environmental Protection

Climate Change and Energy Management

• Task Force on Climate-related Financial Disclosures (TCFD)

To address the potential financial risks of climate change on operations, in 2018 TSMC adopted the TCFD's recommendations released by the Financial Stability Board (FSB) to identify risks and opportunities and further establish metrics and management targets based on the results identified.

Management Structure of TSMC Climate-related Risks and Opportunities

Category	Management Strategy and Actions
Governance	Board of Directors periodically reviews climate change related risks and opportunities •ESG Steering Committee: TSMC's top organization in climate change management. Led by TSMC's Chairman with the chairperson of the ESG committee serving as executive secretary, the committee reviews TSMC's climate change strategies and goals every quarter and reports to the Board of Directors/nominating, corporate governance and sustainability committee •Energy Saving and Carbon Reduction Committee: The Company's management organization for taking action on climate change risk and opportunity. Chaired by the senior executive of fab operations, every quarter this committee formulates management plans, reviews implementation status, and discusses future plans
Strategy	Identify short-, medium- and long-term climate risks and opportunities through cross-departmental discussion
	Use scenario analysis to assess the potential operational and financial impact of significant climate risks and opportunities to the Company
	Promote low carbon manufacturing to approach net zero emissions and strengthen climate resilience
	Through communication and coaching, enhance suppliers' climate risk awareness and response capabilities, and cooperate with suppliers to actively develop and implement specific carbon reduction actions
Risk Management	Use the TCFD framework to establish TSMC's climate risk identification process
	Follow risk identification and ranking on climate change to develop relevant response projects
	Integrate climate risk identification and assessment into the enterprise risk management (ERM) process
Metrics and Targets	Set management metrics related to climate change
	Develop carbon emissions reduction targets for TSMC and its suppliers and regularly review the progress on achieving said targets

Financial Impact Analysis and Response of Climate Risks and Opportunities

Climate Risks	Potential Financial Impact	Climate Opportunities	Potential Financial Impact	2024 Actions
Greenhouse Gas (GHG) Emissions Cap and Carbon Tax/Carbon Fee	Restrictions on capacity expansion, increases in operation costs	•Participation in renewable energy plans •Participation in carbon trading market	Early purchases of renewable energy, successfully increasing production capacity	•Have signed power purchase agreements for renewable energy totaling 4.4 GW •Used 3,610 GWh in renewable energy, and increased the proportion of renewable energy use to 14.1% •Achieved 100% renewable energy used in overseas subsidiaries and offices for the seventh consecutive year
Trend to Net Zero Emission	•Increased cost of installation and operation of carbon reduction equipment •Increased cost of purchasing carbon offset products	Win public recognition and carbon emissions offset cooperation	Accumulate carbon credits in preparation for future carbon emissions offset	•Received carbon credit for fluorinated-GHG and nitrous oxide reduction offset project about 1,500 thousand tons •100% use of carbon neutral natural gas from Chinese Petroleum Corporation in TSMC Taiwan fabs •Purchased approximately 289 thousand tons of carbon credits, with around 234 thousand tons used to offset Scope 1 carbon emissions, achieving net-zero emissions.
		Develop low-carbon product services to improve product energy efficiency	Satisfy customer needs for energy-saving products and increase revenue	•Developed energy saving products for the 3nm, 2nm and more advanced manufacturing process
Commitment of Environmental Impact Assessment (EIA)	The development of advanced technologies potentially hampered by inability to obtain renewable energy and reclaimed water	Use reclaimed water	Smooth construction of advanced production lines	•Consumed 19.65 million cubic meter/year of reclaimed water
Uncertainty of Development of New Energy Saving Technology	Rising electricity consumption in advanced technology production lines increases production costs	Construct green buildings	Reduce utility costs	•Received nine green building certifications

(Continued)

Climate Risks	Potential Financial Impact	Climate Opportunities	Potential Financial Impact	2024 Actions
Impact on the Company's reputation	Inability to satisfy the expectations of stakeholders, negatively impacting the Company's reputation	Improve the Company's reputation	Upgrade TSMC performance in stakeholders' sustainability ranking	•Led the industry as the only semiconductor company chosen for the Dow Jones Sustainability Indices (DJSI) for the 24th consecutive year
Drought (TSMC Operation) Drought (Supply Chain) Flooding (TSMC Operation) Flooding (Supply Chain)	Production negatively affected, causing financial losses and a decrease in revenue	Increase resilience and ability to cope with natural disasters	Strengthen resilience in coping with climate change impact, lower risk of operations disruption, and reduce potential losses	•Raised the building base of Fab 22 Phase 1 five meters higher •Fab 20 Phase 1 and Fab 22 Phase 1 committed to using reclaimed water •Required suppliers to assess drought and flooding risk in operating facilities and implement related risk reduction actions •Implemented drills based on drought emergency procedures
Rising Temperatures	Increase in electricity consumption cost, and carbon emissions	Strive for low-carbon, green manufacturing	Save energy and cut costs	•Conserved 810 GWh of electricity through energy-saving projects

Greenhouse Gas (GHG) Emission Reduction and Energy Management

TSMC remains committed to becoming a global leader in green manufacturing. In response to threats presented by extreme weather, TSMC sets strategies and targets, ensures sound execution and strives to build a sustainable culture. In 2021, TSMC announced its long-term goal of net zero emissions by 2050, while setting the short-term goal of zero growth in emissions by 2025. By actively implementing emission reduction measures, the Company is working to return its carbon emissions to 2020 levels by 2030.

The Company actively participates in the initiatives of the World Semiconductor Council (WSC) and has leveraged its past experience to develop best practices, which have been fully adopted and implemented by the Company since 2012 to reduce perfluorinated compounds (PFC) emissions. In 2018, in accordance with the Ministry of Environment's regulation, "Greenhouse Gas Offset Project Management Regulations", TSMC applied for recognition of GHG reduction and accumulatively received 1.5 million tons of carbon dioxide credits since 2022. Those carbon credits can be used to offset GHG emissions of new manufacturing facilities regulated by environmental impact assessment (EIA) Act in support of the Company's sustainable operations and mitigate climate-change risk.

Since 2005, TSMC has completed the GHG inventory program and taken a complete inventory of its GHG emissions to gain ISO 14064 certification. The inventory shows that the major direct GHG emissions are PFCs, which are widely used in semiconductor manufacturing. The primary indirect GHG emission is electricity consumption. The analysis of the inventory data was performed not only to meet domestic regulatory reporting requirements but also to serve as a baseline reference for the Company's strategy to reduce GHG emissions. For the last 20 years TSMC has worked with the CDP, an international non-profit organization, to publicly disclose climate change information and to continuously review and improve related management practices.

In response to the Paris global climate agreement and the R.O.C. Greenhouse Gas Reduction and Management Act, TSMC initiated a cross-functional platform for carbon management in 2016. The three areas of focus of this platform are legal compliance, emission reduction, and carbon credit acquisition. In addition to participating in official regulatory consultation and communications meetings, the Company also sets short-, medium- and long-term reduction targets through the Energy Saving and Carbon Reduction Committee led by the fab operations' senior executive. The measures are carried out by energy and carbon reduction teams of individual fabs. Because more than 80% of TSMC's GHG emissions come from electricity consumption, the Company emphasizes energy conservation and carbon reduction initiatives. TSMC has not only implemented energy-conserving designs in its manufacturing fabs and offices but has also continuously improved the energy efficiency in operating its facilities. These efforts simultaneously reduce carbon dioxide gas emissions and costs. As a result, TSMC has conserved 4.7 billion kilowatt hours (kWh) of power since 2016. In 2023, Taiwan renamed the "Greenhouse Gas Reduction and Management Act" to the "Climate Change Response Act" and amended the provisions, setting a target to achieve net-zero emissions by 2050 and establishing a carbon fee mechanism. In 2024, three subordinate regulations were announced: the "Carbon Fee Charging Measures", "Regulations on the Management of Voluntary Emission Reduction Programs" and "Designated Greenhouse Gas Reduction Targets for Entities Subject to Carbon Fee Collection" and the rate of carbon fee was also set and announced. For emitters with direct and indirect emissions exceeding a certain threshold, carbon fees will be levied starting in 2025. As TSMC's emissions in Taiwan exceed the current regulatory threshold, the Company will pay a carbon fee in 2026 for the first time. TSMC will continue to integrate green

management into its daily operations, actively implement greenhouse gas reduction targets, and propose a voluntary reduction plan to obtain preferential rates, thereby mitigating the financial impact on the Company.

Since 2018, TSMC has aggressively negotiated the purchase of renewable energy from suppliers in Taiwan. The Company aims to achieve 60% of its electricity consumption from renewable energy by 2030 on the way to fulfilling its long-term commitment of 100% renewable energy usage by 2040. Also since 2018, TSMC overseas manufacturing fabs and offices have purchased renewable energy, REC and carbon credits to offset all carbon emissions caused by power consumption. All TSMC overseas sites achieved net zero emissions in 2024. The development of renewable energy in Taiwan has recently entered an active planning and construction phase, and TSMC's renewable energy task force continues to communicate with the government, offering suggestions related to the development of renewable energy, with the hope of collaborating with the government to accelerate the progress of renewable energy in Taiwan. TSMC continues to increase its procurement amount of renewable energy. By the end of 2024, the total installation capacity of renewable energy contracted reached 4.4 GW (gigawatts). The renewable energy will be provided to TSMC gradually after the related business process has been completed. This is a clear manifestation of the Company's active support of the UN Sustainable Development Goals (SDGs).

TSMC GHG Reduction Target and Achievement Status

Strategy	2030 Goal	2024 Target and Achievement	Achievement Status
Continue to use best available technology to reduce GHG emissions and become an industry leader in low-carbon manufacturing	Reduce GHG emissions per unit product (metric ton of carbon dioxide equivalent ($MTCO_2e$)/12-inch equivalent wafer mask layer) by 30% (base year: 2020)	GHG emissions per unit product (metric ton of carbon dioxide equivalent ($MTCO_2e$)/12-inch equivalent wafer mask layer) increased by 19% (target: -10%)	Unachieved (Note)

Note: Target not achieved due to increase in production capacity of advanced processes and related carbon emissions, as well as the insufficiency of reduction plans and available renewable energy. TSMC will, therefore, continue to implement more energy saving and carbon reduction actions.

Air and Water Pollution Control

The Company has installed air and water pollution control equipment in each fab to meet regulatory emissions requirements. In addition, TSMC maintains backup pollution control systems, including emergency power supplies, to mitigate the risk of pollutant emissions in the event of equipment failure. The Company centrally monitors the operations of its air and water pollution control equipment 24 hours a day by rotating staff and treats system effectiveness as an important tracking item to ensure the quality of emitted air and discharged water.

To further enhance water resources sustainability, TSMC has adopted and followed the Alliance for Water Stewardship (AWS) standard, the sustainable water management standard (Note). The annual verification for 2024 was completed at the Taichung sites (Fab 15A and Fab 15B) and the Tainan sites (Fab 6, Fab 14 Phase 7, and Fab 14B), and platinum-level certification has been maintained.

In view of TSMC's global operation, and to comply with international regulations and standards, TSMC's Facility Development Division formed a green manufacturing department- Environmental Monitoring Center. This center regularly integrates effluent monitoring data to provide more timely water quality reports and establish effluent baselines, enabling early responses and ensuring compliance with environmental regulations. Also, in pursuit of technological innovation, the Company collaborated with academic institutions and suppliers to successfully implement drinking water-grade bituminous coal Granular Activated Carbon (GAC) in 2024. This adsorption filtration technology is used to treat process wastewater containing per/poly fluoroalkyl substances (PFAS), achieving an average removal rate of 95%. In 2024, TSMC continued to implement four major water saving measures: improving the water production rate of the system, reducing facility system water consumption, increasing the wastewater recycling of facilities, and decreasing water discharge loss from the system. The overall system has increased water conservation by 5.54 million cubic meters.

Note: TSMC AWS certified fabs include Advanced Backend Fab 3, Fab 5, Fab 12A/B, Fab 15A/B, Fab 6, Fab 14B and Fab 14 Phase 7, covering the watersheds of all the fab locations across the Hsinchu, Central Taiwan and Southern Taiwan Science Park.

The goal of water management at TSMC is to optimize the use of every drop of water. In addition to implementing process water-saving measures, TSMC collaborates with industrial, governmental and academic organizations to invest in the development of water reclamation technology. Through participation in the professional committee activities of the Taiwan Science Park Association, TSMC shares water-saving experiences and professional knowledge with semiconductor industry peers to achieve the common goal of the entire park and ensure long-term water resource supply-demand balance. In order to further circulate the use of water resources and support the government's promotion of reclaimed water, TSMC launched the Southern Taiwan Science Park Reclaimed Water Plant operation in 2022. It is the first private water reclamation plant in Taiwan and the industry's first to introduce reclaimed water into semiconductor manufacturing process. In addition to reclaimed water by that plant, TSMC's fabs in Southern Taiwan Science Park also started using reclaimed water supplied by the Yongkang and Anping plants when they started up in 2022 and 2023 respectively. The cumulative supply use of reclaimed water exceeded 67 thousand cubic meters per day and, by the end of 2024, over 19.65 million cubic meters of reclaimed water had been used in the semiconductor manufacturing process in TSMC's Tainan fabs. This reduced city water usage by 31% as the Company reached a 17% replacement rate using reclaimed water. TSMC is committed to promoting reclaimed water use in all newly constructed fabs in the future.

TSMC Water Usage in Recent Two Years

Year	Total Water Usage (million m^3) (Note 1)	Unit Product Water Usage (L/12-inch wafer-e-layer)
2024	129	161.0
2023	114	176.4

TSMC Water Usage Reduction Target and Achievement Status

Strategy	2030 Goal	2024 Target and Achievement	Achievement Status
Enforce climate change mitigation policies, implement water conservation and water shortage adaptation measures	Reduce unit water consumption (liter/12-inch equivalent wafer mask layer) by 30% (base year: 2010)	Increased unit water consumption by 14.3% (Target: -2.7%)	Unachieved (Note 2)

Note 1: Includes TSMC fabs in Taiwan and subsidiaries total use of city water and reclaimed water.
Note 2: Affected by the global economic cycle, TSMC's capacity utilization rate had not yet stabilized in the first half of 2024. The water usage per unit of product did not meet the annual target, and the company will continue to develop diverse water resources to reduce tap water consumption.

Waste Management and Recycling

Waste production at TSMC has risen in recent years as TSMC continues to develop advanced manufacturing processes and rapidly expand its production capacity both at home and overseas. This increase is due to the complexity of new manufacturing processes, the demand for reliable yield rates, and the increased use of raw materials.

To achieve the goal of sustainable resource utilization, TSMC has a designated unit responsible for waste recycling and disposal. The priorities are onsite process waste reduction and offsite recycling and regeneration, with incineration and landfill as the least desirable, final option. In 2017, TSMC amended its articles of incorporation to add four business items for chemical materials to enhance waste process flow and reduce risks of improper waste disposal by commissioned agencies. It also set up onsite resource activation facilities to convert waste resources produced during manufacturing process into products to be used onsite or to sell to other industries. TSMC recycled copper sulfate waste, cobalt-containing liquid waste, sulfuric acid waste and ammonium sulfate waste, all of which were regenerated into products. The Company also developed a system of cryolite synthesis whereby hydrogen fluoride (HF) waste is recycled and regenerated into raw material that can be used in other industries. In 2024, in addition to having recycled cyclopentanone for use as an electronic-grade material the previous year, TSMC continued to collaborate with suppliers to enhance filtration and electrolysis processes. TSMC has successfully recycled tetramethylammonium hydroxide (TMAH) to meet its process requirements for electronic-grade materials. The recycled TMAH has been integrated into the fab process, establishing a sustainable recycling cycle. Concurrently, the Company has been actively working to reduce incineration volumes as its fabs in Taiwan achieved a 95% waste recycling rate for the tenth consecutive year, with a landfill rate below 1% for the 15th consecutive year. In addition, in 2024 TSMC successfully separated aluminum and plastic from foil bags, reclaiming them as aluminum ingots and plastic pallets. TSMC will continue to strive towards its goal of net-zero emissions by 2050.

TSMC Waste Quantity and Outsourced Unit Waste Disposal in Recent Two Years (Note 1)

Year	Outsourced General Waste (ton) (Note 2)	Outsourced Hazardous Waste (ton) (Note 2)	Outsourced Unit Waste Disposal (Note 3) (kg/12-inch equivalent wafer mask layer)
2024	344,056	445,152	1.16
2023	285,605	371,236	1.17

Note 1: The data in the table are preliminary results collected by TSMC and have not yet been verified by a third party.
Note 2: Totals include Taiwan and subsidiary facilities.
Note 3: Taiwan facilities.

TSMC Waste Reduction Target and Achievement Status

Strategy	2030 Goal	2024 Target and Achievement	Achievement Status
Promote waste reduction by source separation and require vendors to provide low chemical consumption equipment	Outsourced unit waste disposal per wafer ≤ 0.50 (kg/12-inch equivalent wafer mask layer)	Outsourced unit waste disposal per wafer 1.16 (kg/12-inch equivalent wafer mask layer) target: ≤1.17	Achieved

In order to ensure that all waste is treated and recycled properly, TSMC closely tracks the recycling and reuse practices of its cleanup and disposal vendors. The Company carefully selects waste disposal and recycling vendors that are certified and have the required permits. TSMC regularly checks the onsite operational status, disposal declaration forms, operational records, etc., to compare with actual reuse and disposal, and takes proactive steps to strengthen vendor auditing. For example, all waste transportation contractors have agreed to join the GPS satellite fleet so that the cleanup transportation routes and abnormal stays for all trucks can be traced. All waste recycling and disposal vendors have installed closed-circuit TV systems at operating sites to monitor and audit waste handling. At the same time, to further guarantee proper waste handling, in 2022 TSMC built the system of waste intelligent fast track (S.W.I.F.T.) and completed five different types of waste treatment vendors for pilot testing. As of 2024, 44% of waste treatment vendors have instituted S.W.I.F.T. and TSMC intends to roll it out to all waste treatment vendors by 2030. Using AI technology in lieu of in-person on-site spot checks increases inspection efficiency 65-fold and reduces manual inspection by 13,000 hours each year. In addition, TSMC conducts ongoing surveys of recycled product tracking and requires all recycling contractors to report their recycled product sales monthly to track waste flow and ensure that actions are taken to adhere to lawful and proper waste recycling and treatment.

Environmental Accounting

The purpose of TSMC's environmental accounting system is to identify and quantify environmental costs for internal management. At the same time, the Company also calculates and evaluates the savings or economic benefits of environmental protection programs so as to continuously promote economically effective programs. While environmental expenses are expected to continue to rise, environmental accounting can help manage these costs more effectively. TSMC's approach measures various environmental costs, establishes independent environmental account codes, and provides the data to all units for use in annual budgeting. The Company's economic benefit evaluation calculates cost savings for energy conservation, water or waste reductions and recycling benefits in accordance with its environmental protection programs. The benefits disclosed in this report include real income from projects such as waste recycling as well as savings from major environmental projects. In 2024, the total benefits of environmental protection programs of TSMC fabs including waste recycling exceeded NT$5.8 billion.

2024 Environmental Cost of TSMC Fabs in Taiwan

Unit: NT$ thousands

Classification	Description	Expense	Investment
1. Direct Costs for Reducing Environmental Impact			
(1) Pollution Control	Fees for air pollution control, water pollution control, and others	16,680,115	20,477,945
(2) Resource Conservation	Costs for resource (e.g. water) conservation	-	8,745,208
(3) Energy Conservation	Costs for electricity consumption saving	-	2,877,959
(4) GHG Reduction	Includes: (1) Process GHG emissions abatement equipment; (2) Premium for purchasing renewable energy; (3) Costs for purchasing carbon credits; (4) Other costs for direct GHG emissions reduction	1,334,824	4,398,213
(5) Industrial Waste Disposal and Recycling	Costs for waste treatment (including recycling, incineration and landfill)	5,209,318	-
2. Indirect Costs for Reducing Environmental Impact (Environmental Managerial Costs)	(1) Cost of employee environmental training (2) Environmental management system and certification expenditures (3) Environmental impact measurement and monitoring fees (4) Environmental protection product costs (5) Environmental protection organization fees	1,254,008	2,511,034
3. Other Environmental Costs	(1) Costs for soil decontamination and natural environment remediation (2) Environmental damage insurance fees and environmental taxes and expenses (3) Costs related to environmental settlement, compensations, penalties and lawsuits	-	-
Total		24,478,265	39,010,360

2024 Environmental Efficiency of TSMC Fabs in Taiwan

Unit: NT$ thousands

Category	Description	Efficiency
1. Cost Savings of Environmental Protection Projects	Energy savings	3,041,775
	Water savings	53,003
	Waste reduction	1,680,778
2. Economic Efficiency for Industrial Waste Recycling	Recycling of used chemicals, wafers, sputter targets, batteries, lamps, packaging materials, paper cardboard, metals, plastics, and other waste	1,072,666
Total		5,848,222

Green Building and Green Factory

Since 2006 TSMC has adopted and followed standards from both the Taiwan Green Building and the U.S. Green Building Council – Leadership in Energy and Environmental Design (LEED) for new fab and office building designs to achieve better energy and resource efficiency compared to conventional designs. The Company has also continued to upgrade existing office buildings to comply with the LEED standard each year. From 2008 to 2024, 51 of TSMC's fabs and office buildings achieved LEED certification: three platinum and 48 gold. During this time, the Company also received 31 Taiwan ecology, energy saving, waste reduction and health (EEWH) certifications: 21 diamond, seven gold and three silver.

Environmental Audit Results in Violation of Environmental Regulations

In 2024 and as of the date of this annual report, TSMC has had no environmental regulation violations.

7.2.2 Sustainable Products

TSMC collaborates with its upstream material and equipment suppliers, design ecosystem partners and downstream assembly and testing service providers to minimize environmental impact. Reducing the resources and energy consumed for each unit of production allows the Company to provide customers with more advanced, power efficient, and ecologically sound products. These include ultra-low power (ULP) and low operating voltage (low Vdd) chips for wearables and IoT devices, low-power chips for mobile devices, high-efficiency LED driver chips for flat panel display backlighting, indoor/outdoor solid state LED lighting, Energy Star certified low standby AC-DC adaptor chips, high-efficiency DC brushless motor chips, electric vehicle chips and low-power server chips. By leveraging TSMC's superior energy-efficient technologies, these chips support sustainable city infrastructure, greener vehicles, smarter grids, more energy efficient servers and data centers and other applications. In addition to helping customers

design low power, high performance products to reduce resource consumption over the product's life cycle, TSMC's green manufacturing practices provide additional green value to customers and other stakeholders.

TSMC-manufactured ICs are used in a broad variety of applications in various market segments including computer, communications, consumer, industrial, electric vehicle, server and data center, and other electronics. Through TSMC's manufacturing technologies, customers' designs are realized, and their products are incorporated into people's lives. These chips, therefore, make significant contributions to the progress of modern society. The Company endeavors to achieve profitable growth while providing products that add both environmental and social value. Listed below are several examples of how TSMC-manufactured products make significant contributions to the environment and society.

Environmental Contributions by TSMC Foundry Services

1. **Continuously Drive Technology to Reduce Power Consumption and Save Resources**

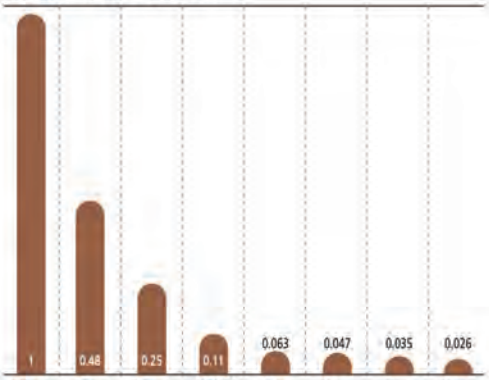
- To play its part in achieving sustainability, TSMC continues to drive the development of advanced semiconductor process technologies to help customers create more advanced, energy-efficient and environmentally friendly products. In each new technology generation, circuitry line widths shrink, making transistors smaller and reducing product power consumption for completing the same tasks or achieving the same level of performance. In addition, calculations using the Industry, Science, and Technology International Strategy Center's model reveal that in 2020 TSMC helped the world conserve 4 kWh of energy for each 1 kWh spent in production – a testimony to TSMC's commitment to green manufacturing both internally and externally. (Please refer to "Sustainable Products by TSMC Facilitates Global Energy Conservation" on page 11 of TSMC's 2020 Corporate Social Responsibility Report.)
- As TSMC quickly ramped up its 7nm and newer generation technologies, the combined wafer revenue contribution of 7nm and more advanced technologies grew significantly from 27% in 2019 to 69% in 2024. TSMC's objective is to continue R&D investment and increase the wafer revenue contribution from 7nm and more advanced technologies, helping the Company achieve both profitable growth and sustainability.

TSMC Wafer Revenue Contribution from 7nm and More Advanced Technologies

2019	2020	2021	2022	2023	2024
27%	41%	50%	53%	58%	69%

Chip Die Size Cross-Technology Comparison

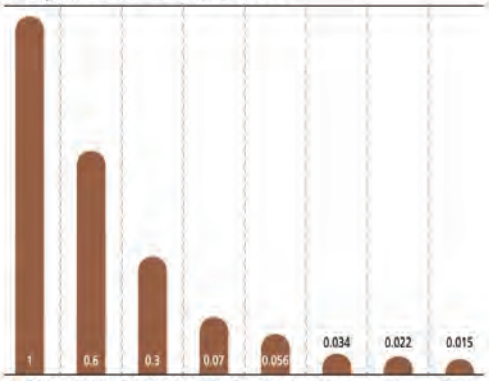
Die size shrinks as line width shrinks



Note: The logic chip/SRAM/IO (input/output) ratio, which affects die size and power consumption, was re-aligned.

Chip Total Power Consumption Cross-Technology Comparison

More power is saved as line width shrinks



Note: The logic chip/SRAM/IO (input/output) ratio, which affects die size and power consumption, was re-aligned.

2. Provide Customers Leading Power Management IC Processes with the Highest Efficiency

- TSMC's leading manufacturing technologies help customers design and produce green products. Power management chips, the key components that supply and regulate power to all other IC components within electronic devices, are the most notable green IC products. TSMC helps customers produce industry-leading power management chips with more stable and efficient power supplies and lower energy consumption. Power management ICs manufactured by TSMC for its customers are widely used in computer, communication, consumer electronics, electric vehicle, server and data center, and other products or systems throughout the world.

3. Drive the Industry-leading, Comprehensive ULP Technology Platform

- To meet low-power consumption requirements for IoT markets, such as smart wearable, smart home, health care and smart city for IoT products, TSMC continues to invest in expanding and enhancing its ultra-low power processes. The Company provides industry's leading and most comprehensive ULP technology platform to support various smart edge devices, including smart watches, hearing aids, pacemakers, continuous glucose monitoring (CGM) devices, environment monitoring, and smart grid infrastructure. TSMC's industry-leading ULP offerings, including the FinFET-based 6-nanometer technology, N6e® and the 12-nanometer technology, N12e®, both of which feature energy efficiency and high performance for enhanced computing power and AI inferencing, as well as 22nm ultra-low leakage (ULL), 28nm ULP, 40nm ULP, and 55nm ULP, have been widely adopted in various Edge AI system-on-a-chip (SoC) and battery-powered applications. TSMC has also extended its low Vdd offerings for extreme low-power applications.

4. Develop Greener Manufacturing to Lower Energy Consumption

- TSMC continues to develop more advanced and efficient technologies to reduce energy/resource consumption and pollution per unit during the manufacturing process, as well as power consumption and pollution during product use. In each new technology generation, circuitry line widths shrink, making chips smaller for the same circuit designs and lowering the energy and raw materials consumed for per chip in manufacturing. In addition, the Company continuously provides process simplification and new design methodology based on its manufacturing excellence to help customers reduce design and process waste so as to produce more advanced, energy-saving and environmentally friendly products. For total energy savings and benefits realized in 2024 through TSMC's green manufacturing, see Environmental Accounting on page 158-159 in this Annual Report.

Social Contributions by TSMC Foundry Services

1. Unleash Customers' Mobile and Wireless Chip Innovations that Enhance Mobility and Convenience

- The rapid growth of smartphones and tablets in recent years reflects strong demand for mobile devices, which accelerates innovations for IC products such as baseband, RF transceivers, application processors (AP), wireless local area networks (WLAN), CMOS image sensors (CIS), near-field communication (NFC), Bluetooth, global positioning systems (GPS), ultra-wide band (UWB), organic light-emitting diode (OLED) display drivers and power management ICs (PMIC) among others. These mobile devices offer remarkable convenience in daily living, and TSMC contributes significant value to these devices in the following ways: (1) new TSMC process technologies help chips achieve faster computing speeds in smaller sizes, leading to smaller form factors for these electronic devices. In addition, TSMC SoC technology integrates more functions into one chip, reducing the total number of chips in electronic devices, again resulting in a smaller system form factor; (2) new TSMC process technologies also help chips reduce power consumption, allowing mobile devices to be used for a longer period; and (3) TSMC helps spread the growth of more convenient wireless connectivity such as 3G/4G/5G and WLAN/Bluetooth/UWB, meaning people can communicate more efficiently and "work anytime and anywhere," significantly increasing the productivity and mobility of modern society.

2. Unleash Customer Innovations in CMOS Image Sensor (CIS) and Micro-Electromechanical Systems (MEMS) that Enhance Human Health and Safety and Create Green Products

- To make machines smarter, safer and more user and environmentally friendly, sensors are a must. Optical, acoustic, motion, and environment sensors are mostly made using either CIS or MEMS technologies. TSMC continues to put substantial effort into developing more advanced CIS and MEMS technologies to enable customers to create new products for new applications. For CIS, TSMC and customers have extended applications from traditional RGB (red, green,

blue) sensing to 3D depth sensing, optical fingerprint, and near-infrared (NIR) machine vision, and so on. For MEMS, TSMC and customers have extended applications from traditional motion sensing to microphone, bio-sensing, micro-speakers, medical ultrasound actuators and more. TSMC customers' sensing devices are used in consumer electronics, mobile communications, automotive electronics, industrial, and medical devices, and they are increasingly smaller, faster, more accurate and more energy efficient, greatly enhancing human convenience, health and safety, and contributing to sustainability.

As an example, TSMC customers introduced their latest automotive CIS products for car safety systems in 2024 with significantly improved dynamic range performance, which makes advanced driver assistance systems (ADAS) and autonomous vehicles smarter and safer. In addition, adopting TSMC's innovative MEMS technology, TSMC customers successfully introduced next-generation MEMS speakers with smaller form factor and better high frequency response. These features further improve user experience by enabling more flexible industry design, bigger battery space, and closer to natural sound quality for hearing aids and consumer-grade hearing assistance devices.

7.2.3 Safety and Health

Safety and Health Management

TSMC's safety and health management complies with local and international standards and adheres to the management approach of "plan, do, check, act" to prevent accidents, promote employee safety and health, and protect Company assets. All TSMC fabs in Taiwan have received Taiwan Occupational Safety and Health Management System (TOSHMS) certification since 2009.

In 2018, the International Organization for Standardization released ISO 45001: 2018, replacing OHSAS 18001. This new standard introduced major changes, including an expanded scope, increased support and participation from leadership, and a focus on both internal and external issues. It also addressed the expectations and demands of stakeholders, the assessment of risk inspections, communication and consultation with non-managers, the application of performance indicators, and the evaluation of corrective and preventive actions. These changes ensure that the system can be effectively implemented at the management level through management review, internal audit, automatic check, and security patrol to identify safety concerns and opportunities for improvement. All Company fabs in Taiwan received ISO 45001 certification for occupational health and safety in 2019 and all TSMC subsidiaries obtained the certification in 2020. All the above certifications have been maintained to date through 2024. Per TSMC's internal policy, new facilities are required to receive these certifications within 18 months upon receiving facility license.

In addition to accident prevention, TSMC has established emergency response procedures to protect employees and contractors if a disaster should occur, as well as to prevent and/or reduce the negative impact on the community and the environment. TSMC communicates regularly with suppliers to ensure that the potential risk in operating production equipment is minimized and that safety control procedures are followed rigorously during installation. The Company places stringent controls on high-risk operations, and also evaluates the seismic tolerance of its facilities and equipment to reduce the risk of earthquake damage.

For epidemics, TSMC has established corporate-level prevention committees and procedures for emergency response to outbreaks of infectious diseases.

Working Environment and Employee Safety and Health Protection

The Company's ESH policy is focused on establishing a safe working environment, preventing occupational injury and illness, keeping employees healthy, enhancing every employee's awareness and sense of ESH accountability, and building a strong ESH culture.

There were a total of 37 occupational injuries at TSMC in 2024, involving 37 people, representing approximately 0.05% of the total number of employees. The disabling injury frequency rate (FR) was 0.26, under the 0.4 target, and the disability injury severity rate (SR) was 3, achieving the target of less than 4. TSMC routinely reviews potential improvement measures, such as the promotion of safety culture-related posters or animations to strengthen employee safety awareness. By implementing interactive communication training courses on safety culture and "safety moments" activities, TSMC can integrate safety into daily life and encourage employees to proactively discuss safety-related issues. To reduce sports

injuries, it is mandatory for the welfare committee and departments to conduct risk identification and hazard reminders before organizing sports activities. The Company continuously observes operations and conducts compliance inspections to identify potential injury risks in the workplace and implement improvement measures to enhance workplace safety. In addition to regular reviews, the caring program for employees has been enhanced and managers have been directed to pay closer attention to the physical and mental state of employees to ensure their safety and health while at work.

TSMC safety and health management operations apply to the following:

- **Equipment Safety and Health Management**

In addition to meeting regulatory requirements and internal standards, as well as mitigating ESH-related risks when building or expanding facilities, TSMC maintains procedures governing new equipment and raw materials, requires safety approvals for bringing new tools online, updates safety rules, and implements seismic protection and other safety measures.

TSMC requires that all new tools meet SEMI-S8 requirements and that appropriate supplementary control measures be taken to reduce ergonomic risk. Moreover, the Company endeavors to automate the transportation of 300mm front-opening unified pods (FOUPs) to prevent cumulative physical injury caused by repetitive manual handling of this equipment. TSMC 300mm fabs have all converted to automatic transportation control.

- **Environmental, Safety and Health Evaluation of New Tools and New Chemical Substances**

As a technology leader in the global semiconductor industry, TSMC operates increasingly diversified process tools and introduces new chemicals in the R&D stage. Before using new tools or new chemicals, they are reviewed carefully by the new tool and new chemical review committee. The purpose is to ensure that new tools are compliant with the semiconductor industry's safety standards (such as SEMI-S2) and that environmental, safety and health concerns about new chemicals are addressed and controlled including the use of engineering controls and personal protection equipment, as well as operational safety training during storage, transportation, use and disposal. A total of 351 cases of new tools and chemical substances were approved by the new tool and new chemical review committee in 2024 after they were evaluated and reviewed in accordance with the aforementioned standards and before entering TSMC.

- **General Safety Management, Training and Audit**

All TSMC manufacturing facilities hold environmental, safety and health committee meetings on a monthly basis. TSMC has adopted multiple preventive measures such as controls on high-risk work, contractor management, chemical safety management, personal protective equipment requirements, and safety audit management. In addition, the Company maintains detailed disaster response procedures and performs regular drills designed to minimize injuries to employees and damage to property, as well as the impact on society and the environment, in the event of a mishap or disaster.

TSMC Safety-related Training in Recent Two Years

Year	Total Number of Employee Counts that Have Completed Safety-related Training
2024	300,533
2023	297,403

- **Working Environment Hazardous Factors Management**

TSMC conducts workplace hazard assessments to provide a comfortable, safe workplace for employees. The Company also educates employees and requires them, when appropriate, to use personal protective equipment (PPE) to prevent hazardous exposures.

The Company performs semi-annual workplace environment assessments of physical and chemical hazards, including CO_2 concentration, illumination, noise, and hazardous chemical substances as regulated by local laws. In addition, TSMC performs exposure assessments and uses hierarchy management control for chemicals with potential health hazards. If abnormal measurements occur, events happen, or an exposure assessment indicates there is an adverse health effect on employees, ESH professionals immediately conduct onsite observation and intervention to reduce the risk of hazardous factors exposure to acceptable levels.

- **Health Promotion Program**

In order to establish the healthiest possible workplace and reduce the incidence of occupational disease, TSMC formed a corporate-level committee to carry out health promotion programs covering three key areas:

1. **Exposure and health risk assessment:** develop an exposure assessment system to identify high health risk employees.
2. **Hazardous training and notification:** use standardized training materials for employees and contractors in all TSMC fabs. Inform them of the health risks and prevention measures at the workplace before they begin working or providing any services there.
3. **Management of chemicals with significant health risks:** request that all materials suppliers prove to TSMC that they comply with applicable laws including clear disclosure of any hazardous substances. Perform sampling of raw materials used in the manufacturing process to confirm that they do not contain any carcinogenic, mutagenic or toxic-reproductive materials as claimed on supplier's safety data sheets.

• **Emergency Response**

The planning and execution of an effective emergency response require identifying potential high-risk events via risk assessment and being prepared for various scenarios and should focus on continuous improvements and drills covering all potentially serious events. TSMC's emergency response plans include procedures for rapid-response, crisis management and disaster recovery from potential incidents.

All TSMC fabs conduct major annual emergency response exercises and evacuation drills. TSMC's onsite service contractors are also required to participate in emergency response planning and exercises to ensure cooperation in handling accidents and to effectively minimize any damage caused by disasters. In 2024, the Company held 116 evacuation drills and 66 fire drills. At least every two years, each fab director invites fab management and support functions to participate in business continuity drills for potentially high-risk events such as earthquake, fire and flood (at the Tainan site). Since 2018, TSMC has conducted numerous comprehensive accident emergency response drills, including simultaneous scenarios for earthquake, fire and chemical spills, to ensure rapid response to emergencies so that losses can be minimized in the event of a real disaster. In 2020, TSMC took the lead in the industry by introducing the all-hazard approach as recommended by the Federal Emergency Management Agency (FEMA) to conduct disaster prevention exercises.

In response to the COVID-19 pandemic, TSMC added tabletop exercises to disaster prevention training in an effort to minimize the risks of group infections that might arise in full-scale, in-person exercises. The inclusion of tabletop exercises also aids in the verification of full-scale exercise procedures to make disaster response more comprehensive, thus effectively mitigating the impact of various types of disasters on business continuity in the future. As of 2024, in addition to 126 sessions of tabletop exercises, 608 full-scale exercises had been completed.

In addition to the regular emergency response drills held by engineering and facilities departments each quarter, the Company's laboratory, canteen, dormitory, and shuttle bus personnel also hold similar drills to prepare for events such as earthquakes, chemical spills, ammonia releases, fires and traffic accidents. Conduct annual inventory of the public hazardous substances in all fabs to identify potential risks and enhance the disaster prevention management capabilities of the fab, effectively reducing the risks of fires and legal violations.

• **Emerging Infectious Disease Response**

TSMC has a dedicated corporate ESH organization to monitor emerging infectious diseases around the world, to assess any potential impact on the workplace, and to provide an appropriate strategic response plan. In previous outbreaks such as SARS in 2003, H1N1 influenza in 2009, and MERS in 2015, as well as with COVID-19 from 2019 to 2023, TSMC followed the Taiwan CDC's (Center for Disease Control) rules and convened the corporate influenza response committee to develop the Company's strategies. These strategies included educating employees in prevention and response, publishing guidelines for managers, establishing guidelines for employee sick leave, and installing alcohol-based hand sanitizers at appropriate locations. The Committee also monitors the status of employee leave due to illness and, at the same time, develops a continuity plan to address manpower shortages and minimize business impact. For example, during the COVID-19 outbreak, in order to protect the health of TSMC employees, their families, and work partners, employees were encouraged to be fully vaccinated if in healthy condition. In addition, TSMC periodically reviewed the situation and implemented appropriate preventive measures such as providing updated vaccination information and performing daily body temperature checks before entering Company facilities, while continuing to follow standard epidemic prevention recommendations such as mask wearing, frequent hand washing and social distancing.

• **Employee Physical and Mental Health Enhancement**

TSMC believes that employee physical and mental health is not only fundamental to maintaining sound business operations but is also an important part of a corporation's responsibility. To preserve and promote the physical and mental health of its employees, TSMC fosters collaboration among the onsite industrial safety and environmental protection department, the onsite medical personnel of the health center, and physicians of occupational medicine. TSMC strives to reduce cerebral injuries and cardiovascular conditions that might be induced or aggravated by overwork, night work or shift work.

The Company conducts programs for maternal health protection and for prevention of cumulative trauma disorders as well. TSMC devotes significant resources to mental health awareness, focused not only on hazards at work but also on employee health in general. In 2024, planned personal health management activities included the following: 1) 539 female employees participated in the maternal health program with a completion rate of 100%. All of them were at first degree risk, where there was no potential harm to the mother or infant. (2) Through analysis of historical cerebral and cardiovascular cases of its employees, combined with internal annual health examination reports and work scheduling information, the Company was able to identify 5,071 employees with middle to high risk for cerebral and cardiovascular diseases. These employees were provided with health education and medical assistance. Also, they and their managers received recommended changes in working hours and shifts to reduce health risks. (3) 171 employees were identified as high risk for cumulative trauma disorders, including two who might also have job-related risks, and the Company adjusted working conditions accordingly to reduce potential risks. (4) Obesity is recognized as a potential catalyst for various health issues, including high blood sugar, high cholesterol, high blood pressure, and insomnia. In response, TSMC has diligently organized health promotion initiatives over the years. In 2024, acknowledging the younger generation's preference for multimedia content, the Company enhanced its digital tool usage to broaden employees' access to health information. In addition to conducting physical weight loss programs, which saw 7,180 participants collectively shedding 6,534 kilograms, the Company meticulously curated a series of online interactive health education events. These initiatives included expert-led seminars focused on topics such as healthy eating and exercise, conducted across seven sessions and engaging 1,482 participants.

For mental health, in 2024, six psychologists were appointed to address mental health, designing tailored health knowledge and activities for different groups within the Company. These initiatives included: (a) employee lectures, with 79 sessions and 3,107 attendees; (b) mindfulness workshops, with eight sessions attended by 402 attendees; (c) a World Mental Health Month with online lectures and questionnaires, involving 3,435 attendees. Additionally, the interactive "Three Good Things" activity drew 1,708 attendees. All the actions above received positive feedback from employees, so the Company will continue to implement relevant promotional activities to take care of the health of employees in the future.

7.2.4 Supplier Management

Management Aspect

For better supply chain management, TSMC is committed to communicating with and encouraging its suppliers and contractors to increase their quality, cost effectiveness and delivery performance, and make continuous improvement in supply chain sustainability. Through regular communication with senior managers, site audits and experience sharing, the Company collaborates with major suppliers and contractors to enhance partnerships and ensure continued improvement of performance and increased joint contributions to society. As noted above, contractors performing high-risk activities must lay out clearly defined safety precautions and preventative measures. In addition, contractors working on high-risk engineering projects must establish ISO 45001 or OHSAS 18001 systems, and their workers must successfully complete work-related skill training. By 2024, all TSMC contractors performing high-risk activities had obtained ISO 45001 certification.

Supply Chain Sustainability

TSMC closely collaborates with suppliers across various sustainability domains, including establishing a green supply chain, managing carbon emissions to address climate change, reducing fire risk, and developing operational plans for environmental protection, safety and health management, and natural disasters.

Since joining the Responsible Business Alliance (RBA) in 2015, TSMC has been committed to reviewing and improving the Company's policies and processes in labor, health and safety, environment, ethics, and management systems through rigorous internal assessments and policy adjustments to ensure compliance with the RBA Code of Conduct.

To enhance sustainable management and effective risk management of the supply chain, TSMC is committed to working closely with suppliers to ensure compliance with Taiwan's environmental protection, safety, health, and fire regulations. Additionally, TSMC has established sustainability standards for the supply chain, which cover areas such as labor rights, health and safety, environmental protection, ethical standards, and management systems. TSMC collaborates closely with its suppliers to assess and improve risks and impacts in the economic, environmental, and social domains. By regularly organizing forums and workshops for experience sharing and training, TSMC assists suppliers in enhancing their sustainability performance, aiming to exceed international standards and become a model in the global semiconductor supply chain.

TSMC is subject to the U.S. Securities & Exchange Commission (SEC) disclosure rule on conflict minerals released under Rule 13p-1 of the U.S. Securities Exchange Act of 1934. As a recognized global leader in the high-tech supply chain, the Company acknowledges its corporate social responsibility to ensure procurement of conflict-free minerals in an effort to recognize humanitarian and ethical social principles that protect the dignity of all people. To this end, TSMC has implemented a series of compliance safeguards in accordance with leading industry practices such as adopting the due diligence framework in the Organization for Economic Cooperation and Development (OECD)'s model supply chain policy for a responsible global supply chain of minerals from conflict-affected and high risk areas, issued in 2011.

TSMC is a strong supporter of the RBA and the Global e-Sustainability Initiative (GeSI). As a member of RBA, TSMC requires that suppliers source conflict-free minerals through their jointly developed Responsible Minerals Initiative (RMI). Since 2011, TSMC has asked its suppliers to disclose and make timely updates on smelters information. The Company encourages suppliers to source minerals from facilities or smelters that have received a "conformant" designation by a recognized industry group (such as the RMI) and also requires those who have not received such designation to become compliant with RMI or an equivalent third-party audit program. TSMC requires the use of conflict-free tantalum, tin, tungsten and gold in its products.

TSMC will continue to conduct the supplier survey annually and require suppliers to improve and expand their disclosure to fulfill regulatory and customer requirements. For further information, see the Company's Form SD filed with the U.S. SEC. (https://investor.tsmc.com/english/sec-filings)

7.3 TSMC Education and Culture Foundation

Focusing on three major areas – promotion of arts and culture, education collaboration, and cultivation of young generation – the TSMC Education and Culture Foundation continues its ongoing commitment to invest resources where appropriate and committed NT$144.27 million in 2024. Following in the footsteps of TSMC's global facilities expansion, the Foundation made its cultural and arts debut overseas, as well as to more cities in Taiwan, so as to enrich the communities' spiritual life. Apart from holding refined art exhibitions and performances, the Foundation further brings sustainability education to various educational events, guiding young students to understand the concepts of sustainability and inspiring them to engage in social issues with creativity and passion, thereby becoming a refreshing force to be reckoned with in uplifting society.

Overseas Sponsorship, Improving International Cultural Ties

Since beginning operations on February 24, 2024, TSMC's JASM subsidiary in Kumamoto, Kyushu, Japan, has empowered its local community economically through the innovation power of technology.Following TSMC's footsteps of global expansion, the TSMC Education and Cultural Foundation has also committed some of its arts and cultural resources to overseas events. It sponsored a concert "Sound from Formosa" by the renowned Taiwanese music group, OneSong Orchestra, at the Kumamoto Prefectural Theater. The event featured award-winning violinist Richard Lin, who won first prize in the Sendai International Music Competition. The concert program included Taiwanese and Japanese folk songs, as well as Taiwanese pop songs. To strengthen ties between Taiwan and Japan, the Foundation invited Kumamoto Prefectural Daiichi High School's choir to perform alongside OneSong Orchestra. Apart from traditional Japanese folk songs, the choir performed the famous song "The Story of a Small Town" by the late singer Teresa Teng, who is well-known in both Japan and Taiwan. The thousand-strong audience from the local communities were all enchanted by the beautiful tunes of Taiwanese music.

The TSMC Hsin-chu Arts Festival, held annually in the local communities where TSMC operates, paid homage to the Chinese canon "Strange Tales from a Chinese Studio" in 2024. Working with the festival's theme of "Transcendence the World of the HEART," the Foundation teamed up with *Unitas* magazine to present a special literary exhibition titled "Strange Tales from a Chinese Studio – Continuing into the After Life, the Real of the Unreal" at the national heritage site of Taichung Station Railway Cultural Park. Through interactive exhibition approaches and talks, the exhibition brought the printed words to life, crossing the boundaries of the physical books and revealing the human nature behind the stories. The exhibition attracted over 14,000 visitors. In addition to the special literary exhibition, the Foundation continues to promote traditional theater, inviting the Tang Mei-Yun Taiwanese Opera Company to perform "Zhuge Liang: A Promise Never Forgot" and the GuoGuang Opera Company to stage the Peking Opera "Chun-Tsao Braving the Court."

Moreover, internationally renowned Berlin Philharmonic horn player Sarah Willis and Cuban singer Carlos Calunga teamed up to present the concert "Mozart y Mambo from Havana". The fusion of classical music and world music aligns perfectly with this year's arts festival theme. The 2024 Hsin-chu Arts Festival featured 39 refined performances and exhibitions and attracted over 26,000 members from the local community.

At the year-end, TSMC Lectures, renowned novelist Yan Lianke was invited to share his insight on the modern literary elements of the classic Chinese tale collection "Strange Tales from a Chinese Studio." The event attracted over 850 attendees. In 2024, marking the 20th anniversary of literary maestro Pai Hsien-Yung's youth edition of "The Peony Pavilion," the Foundation, in collaboration with the National Kaohsiung Center for the Arts (Weiwuying), showcased the complete youth edition of this classic over three days. This event aimed to introduce the enchanting art of Kun Qu opera to a broader audience and the younger generation, inviting everyone to experience this timeless love story from Chinese literature.

Supporting Cultural Inheritance Together with Educational Partners

The TSMC Education and Cultural Foundation is dedicated to promoting the preservation and continuation of traditional theater art. From 2021 to 2024, the Foundation partnered with GuoGuang Opera Company to launch a three-year "Passing the Heritage of Traditional Theatre on Campus" project. This initiative offered full-year courses at both National Tsing Hua University and Tunghai University. The courses covered opera appreciation and stage performance, blending theoretical knowledge with practical performance skills. Using the classic Peking Opera piece "Chun-Tsao Braving the Court" as the central curriculum, actors from the GuoGuan Opera Company personally guided over a hundred students. In 2024, 50 students performed at Taiwan Traditional Theatre Center's main auditorium, attracting an audience of nearly 600 people. In September of the same year, the second phase of the three-year "Passing the Heritage of Traditional Theatre on Campus" was launched.

In 2024, TSMC's Traditional Theatre partnered with Guoguang Opera Company, Taiwan Kunqu Opera Company, and Hsing Legend Youth Theatre to host special events focused on the promotion, introduction, and appreciation of traditional opera. These activities, which have been expanding, were not only held in the existing locations of Hsinchu, Taichung, and Tainan but also extended to Kaohsiung. The aim was to introduce more high school students to the beauty of traditional theater, with a total of 3,809 participants taking part.

The TSMC Education and Culture Foundation is committed to addressing the disparities in educational resources between urban and rural areas. The Foundation continues to partner with various educational organizations to bridge this gap. In its second year, the "TSMC Aesthetic Trip " and "TSMC Science Trip" programs have evolved to offer more in-depth educational experiences. In addition to visiting permanent exhibitions at major arts and science museums, the Foundation has introduced Chinese hard-tipped pen calligraphy writing workshops and semiconductor science workshops. These themed activities are designed to enhance students' learning and retention during their visits.

The Foundation continues its collaboration with the CommonWealth Magazine Education Foundation and Prof. Hwawei Ko Reading Research Center at National Tsing Hua University on a five-year "Teaching and Learning" project. This initiative focuses on reading comprehension and instruction to build an educational support system for teachers in rural areas. By tailoring content to fit educational needs, the program aims to enhance students' literacy skills. Now in its fourth year, the program has engaged 161 teachers and 1,627 students. Since 2004, the Foundation has supported the "Hope Reading Project," annually distributing a hundred of new, high-quality books to 200 remote junior high and primary schools. The project includes teacher training, parent-child reading sessions,

and inter-school reading competitions. By the end of 2024, a documentary titled "Where the Story Begins" was released to celebrate the 20th anniversary of the Hope Reading Project, aiming to raise public awareness of the initiative.

Building a Platform for Youth and Broadening Student Horizons

For the 12th consecutive year, the Foundation is partnering with the Center for the Advancement of Science Education of National Taiwan University to hosts the "TSMC Cup – Competition of Scientific Short Talk." This event includes two sub-competitions: the "Creative Expression Contest" and the "Science Popularization Writing Contest". Participants hail not only students from Taiwan but also from Malaysia, Indonesia and South Korea, facilitating a rich exchange of scientific knowledge and ideas. In 2024, over 550 students took part in these activities. Additionally, the TSMC Science Trip for Young Women was a two-day camp inviting female students from ten high schools to visit science museums, engage in hands-on workshops, and attend talks with female scientists. These sessions provide insights into the scientists' academic and career paths, encouraging young women to explore the field of STEM. In 2024, for the first time, the Foundation expanded the program to include a one-day camp to inspire even more high school female students to develop an interest in science. Together, both camps attracted over 500 participants.

The 17th TSMC Youth Calligraphy and Seal Carving Competition continues to encourage young students to engage with the art of calligraphy and seal carving, fostering the appreciation for the beauty of Chinese characters through various themes. In 2024, the theme was "Paper," one of the Four Treasures of the Study. Students from National Experimental High School at Central Taiwan Science Park visited Going Xing Paper Mill in Nantou to experience the culture of traditional handmade paper. Through the practice of recreating classic ink rubbings and hands-on papermaking, students gained a deeper understanding of how ink interacts with different paper materials, sparking greater interest in calligraphy. In the 21st TSMC Youth Literature Award, both the novel and essay category were won by Liu Zi Xin from National Chia-Yi Girls' Senior High School, whose literary talent captured public attention. To further support emerging Taiwanese literary talent in their creative and publishing endeavors, the Foundation introduced the "Sunrise Book Award" as a category within the framework of the TSMC Youth Literature Award. In 2024, the top prizes were awarded to Han-Yau Huang's essay collection "The Lost River" and Hsiao Yu-Hsiang's poetry collection "How Should People Burn Darkness."

The 9th TSMC Udreamer Project centered on the theme "Sustainability: It's Up to Us," aligning with King Charles III's Terra Carta initiative. In collaboration with Linking Publishing and the *Mandarin Daily News*, the Foundation featured the children's picture book "It's Up to Us" in a special exhibition. The exhibition showcased several large-scale illustrations from the book and hosted an art competition for elementary school students nationwide. From 166 submissions, 38 outstanding pieces were selected to engage in a "dialogue" with works by 33 international illustrators featured in the book. This special exhibition displayed both the book illustrations and the children's visions for the future world. Through this pilot project and related activities, the aim is to raise public awareness about sustainability and plant the seeds of sustainable thinking for future generations.

7.4 TSMC Charity Foundation

Since its inception in 2017, the TSMC Charity Foundation, under the leadership of Chairwoman Sophie Chang, has championed the mission of empowering rural areas. Anchored in three core pillars – Education Empowerment, Healthy Aging, and Environmental Protection – this Foundation has built robust local support and created a lasting impact.

The Foundation mobilizes corporate volunteers to address real societal needs through both physical and online services. Leveraging TSMC's extensive industry network, it strengthens collaboration with local governments, corporations, and universities to provide educational and medical resources for underprivileged children and their families. These initiatives aim to foster long-term self-sufficiency, enabling families to improve their quality of life. Additionally, through its "Sending Love" platform, the Foundation connects communities and amplifies social goodwill, enhancing local service capacities and promoting collective growth.

In 2024, the Foundation demonstrated its dedication to investing in public welfare and expanding projects as follows:

• **Education Empowerment**

The Foundation continued to enhance rural education by offering volunteer services, financial aid, and educational resources. From 2022, beyond providing essential support, the focus expanded to nurturing the employability of rural students. In 2024, the Foundation hosted vocational job fairs featuring career exploration and employment matchmaking in collaboration with eight county and city governments. These efforts were expected to benefit over 7,200 participants.

The Quick-Impact Vocational Training Program, now in its fifth year, was scaled up to include TSMC suppliers and over 200 leading companies such as Daikin, SEMI, Panasonic Taiwan, 104 Job Bank, Howard Hotels and Chenglin Company. This program connects rural students with quality job opportunities through friendly employment expos and tailored training camps held across eight cities like Yilan, Nantou, Tainan, Kaohsiung, Pingtung and Taitung. By empowering over 8,500 young participants to explore diverse career paths, these initiatives create avenues for sustainable livelihoods.

• **Healthy Aging**

Since 2014, partnering with social welfare groups and medical institutions, the Foundation strives to enhance the well-being of elderly individuals living alone. In 2022, a Smart Fitness Club for Seniors, developed in collaboration with NYCU and Guandu Hospital, was established to help prevent disability and delay aging. This initiative was expanded in 2023with the support of TSMC volunteers, engaging retired employees in meaningful contributions.

In the year 2024, the TSMC Charity Foundation partnered with National Yang Ming Chiao Tung University and Guandu Hospital, along with Kikuyo Town in Kumamoto Prefecture, Japan, and Kumamoto University, to formally establish a collaborative alliance. Combining the triangular model of "corporate x hospital/university x community, " smart philanthropy is implemented in Kumamoto to create a healthy and prosperous community for all. Additionally, Kumamoto University Hospital supports about 500 TSMC employees and their families in Japan with pediatric medical resources, ensuring quality care and reducing language barriers.

• **Protecting the Environment**

The Foundation actively promotes green energy adoption and sustainable practices. In 2024, it assisted 15 social welfare organizations in installing solar panels, generating revenue of NT$4.2 million annually from electricity sales. The goal for the future is to increase the number of social welfare organizations by at least 8 each year. Furthermore, 363 rural schools across nine counties benefited from LED energy-saving installations, reducing electricity costs by 30%, savings of NT$7.3 million and carbon emissions by 1,400 tons – equivalent to the environmental impact of 7.5 Da'an Forest Parks, benefiting 120,000 teachers and students. These projects not only create sustainable support for rural schools but also set a benchmark for environmental stewardship.

7.5 TSMC i-Charity Platform

Launched in 2014, the TSMC i-Charity Platform empowers employees to initiate and support social projects, share outcomes, and participate in real-time fundraising activities.

In 2024, over 71 thousand donors contributed to campaigns such as "Hualien Relief" and "Farm-to-Table Shelter Produce." Four recurring projects, supporting rural baseball and academic education, garnered over NT$79 million in cumulative donations.

Since its launch, the platform has raised more than NT$422.5 million in charitable funds, reinforcing TSMC's commitment to societal well-being. By encouraging employees to contribute in diverse ways, the Company continues to uphold its promise to drive positive change across communities.

7.6 Sustainability Development Implementation Status as Required by Taiwan Financial Supervisory Commission

Assessment Item	Implementation Status			Non-implementation and Its Reason(s)
	Yes	No	Summary	
1. Does the Company have a governance structure for sustainability development and a dedicated (or ad-hoc) sustainable development organization with Board of Directors authorization for senior management, which is reviewed by the Board of Directors?	V		1. For the Company's governance structure for sustainability development, please refer to "7.1 Corporate Sustainability (ESG) – Overview" on page 148-152 of this Annual Report. 2. For the time of establishment, structure, operations, implementation status and frequency of reporting to the Board of Directors of the Company's dedicated organization for sustainability development, please refer to "7.1 Corporate Sustainability (ESG) – Overview" on page 148-152 of this Annual Report. 3. For progress of the Board of Directors' supervision of the Company's sustainability development, please refer to "7.1 Corporate Sustainability (ESG) – Overview" on page 148-152 of this Annual Report.	None
2. Does the Company follow materiality principle to conduct risk assessment for environmental, social and corporate governance topics related to company operation, and establish risk management related policy or strategy?	V		1. For the Company's scope of risk assessment, please refer to "7.1 Corporate Sustainability (ESG) – Overview" on page 148-152 of this Annual Report. 2. For the principle, process and result of the Company's materiality analysis of ESG related topics and risk management related policy or strategy, please refer to "7.1 Corporate Sustainability (ESG) – Overview" on page 148-152 of this Annual Report.	None
3. Environmental Topic (1) Has the Company set an environmental management system designed to industry characteristics?	V		(1) For the Company's environmental management system and the regulations on which it is based, please refer to "7.2 Environmental, Safety and Health (ESH) Management" on page 152-166 and "6.2.3 Risks Regarding Non-Compliance with Export Control, Environmental and Climate Change Related Laws, Regulations and Accords, and Failure to Timely Obtain Requisite Approvals Necessary for Conducting Business" on page 142-143 of this Annual Report. For the Company's international certifications and their scope, please refer to "7.2 Environmental, Safety and Health (ESH) Management" on page 152-166 of this Annual Report.	None
(2) Is the Company committed to improving resource efficiency and to the use of renewable materials with low environmental impact?	V		(2) For the Company's improvement of resource efficiency and the use of renewable materials, please refer to "7.2.1 Environmental Protection – Climate Change and Energy Management/Waste Management and Recycling" on page 154-155, 157-158 of this Annual Report.	
(3) Does the Company evaluate current and future climate change potential risks and opportunities and take measures related to climate related topics?	V		(3) For the Company's evaluation of potential risks and opportunities of current and future climate change and measures taken related to climate topics, please refer to "7.2.1 Environmental Protection - Climate Change and Energy Management" on page 154-155 of this Annual Report.	
(4) Does the Company collect data for greenhouse gas emissions, water usage and waste quantity in recent two years, and set greenhouse gas emissions reduction, water usage reduction and other waste management policies?	V		(4) For the Company's statistical data, intensity and data coverage for greenhouse gas emissions, water usage and waste quantity in recent two years, please refer to "7.2.1 Environmental Protection – Climate Change and Energy Management/Greenhouse Gas (GHG) Emission Reduction and Energy Management/Air and Water Pollution Control/Waste Management and Recycling" on page 154-155, 155-156, 156-157, 157-158, "7.7 Climate-related Information of Listed Companies – TSMC GHG Emissions in Recent Two Years" on page 173 of this Annual Report. For the Company's policies on the reduction of greenhouse gas emissions, water usage and waste management, please refer to "7.2.1 Environmental Protection" on page 154-159 of this Annual Report. For the Company's certification status of each data set and its scope, please refer to "7.2.1 Environmental Protection – Climate Change and Energy Management/Greenhouse Gas (GHG) Emission Reduction and Energy Management/Air and Water Pollution Control/Waste Management and Recycling" on page 154-155, 155-156, 156-157, 157-158 of this Annual Report.	

(Continued)

Assessment Item	Implementation Status			Non-implementation and Its Reason(s)
	Yes	No	Summary	
4. Social Topic (1) Does the Company set policies and procedures in compliance with regulations and internationally recognized human rights principles?	V		(1) For the Company's policies and specific programs in compliance with regulations and internationally recognized human rights principles, please refer to "5.6.1 Human Rights Policy and Specific Actions" on page 112-113 of this Annual Report.	None
(2) Has the Company established appropriately managed employee welfare measures (include salary and compensation, leave and others), and link operational performance or achievements with employee salary and compensation?	V		(2) For the Company's employee welfare measures, including salary and compensation, equitable and inclusive workplace, leave, allowance, bonuses, and subsidies, please refer to "5.6.6 Competitive Overall Compensation", "5.6.2 Inclusive Workplace", "5.6.3 Workforce Structure", and "5.6.7 Employee Benefits Exceed Legal Requirements" on pages 115-116, 113-114, 114, 116-117 of this Annual Report. For the information on how the Company's operational performance or achievements are reflected in the policy and implementation of employee salary and compensation, please refer to "5.6.6 Competitive Overall Compensation" on page 115-116 of this Annual Report.	
(3) Does the Company provide employees with a safe and healthy working environment, with regular safety and health training?	V		(3) For the Company's status with respect to providing employees with a safe and healthy working environment, with regular safety and health training, please refer to "7.2.3 Safety and Health" on page 162-165 of this Annual Report. For the Company's related certification status and its scope, please refer to "7.2.3 Safety and Health" on page 162-165 of this Annual Report. For a presentation and analysis of the Company's occupational accidents in the current year, the number of employees involved, and the ratio of the number of employees involved to the total number of employees, as well as related improvement measures taken, please refer to "7.2.3 Safety and Health" on page 162-165 of this Annual Report. The number of fire incidents and the number of casualties in the given year, and the ratio of the number of casualties to the total number of employees, and improvement measures related to fire incidents: In 2024 and as of the date of this Annual Report, there were no fire incidents in TSMC and its subsidiary.	
(4) Has the Company established effective career development training plans?	V		(4) For the scope and implementation of the Company's employee training plans, please refer to "5.6.5 People Development" on page 114-115 of this Annual Report.	
(5) Does the Company's product and service comply with related regulations and international rules for customers' health and safety, privacy, sales, labelling and set policies to protect consumers' or customers' rights and consumer appeal procedures?	V		(5) Not applicable as TSMC is not an end product manufacturer. For the Company's policy to protect customers' rights, please refer to "5.4.1 Customers – Customer Information Protection" on page 110 of this Annual Report.	
(6) Does the Company set supplier management policy and request suppliers to comply with related standards on the topics of environmental, occupational safety and health or labor right, and their implementation status?	V		(6) For the Company's supplier management policy and related compliance norms, and specific requirements for suppliers in environmental protection, occupational safety and health or labor rights, please refer to "7.2.4 Supplier Management" on page 165-166 and "5.6.1 Human Rights Policy and Specific Actions" on page 112-113 of this Annual Report. For a description of the implementation of the Company's supplier management policy and related compliance norms, please refer to "7.2.4 Supplier Management" on page 165-166 of this Annual Report.	
5. Does the Company refer to international reporting rules or guidelines to publish Sustainability Report to disclose non-financial information of the Company? Has the said Report acquire third party verification or statement of assurance?	V		For the reporting rules and guidelines that the Company follows in disclosing non-financial information in the Sustainability Report, please refer to "7.1 Corporate Sustainability (ESG) – Overview" on page 148-152 of this Annual Report. For third party verification, the items or scope certified, and the standards that are followed of the Sustainability Report, please refer to "7.1 Corporate Sustainability (ESG) – Overview" on page 148-152 of this Annual Report.	None
6. If the Company has established its sustainable development code of practice according to "Listed Companies Sustainable Development Code of Practice," please describe the operational status and differences. TSMC follows the ESG Policy to promote the Company's sustainable development through concrete practices. For sustainable development operational status, please refer to "7.1 Corporate Sustainability (ESG) – Overview" on page 148-152 of this Annual Report and ESG related information on the Company's website: https://esg.tsmc.com/en-US				
7. Other important information to facilitate better understanding of the Company's implementation of sustainable development: Please refer to TSMC's website for its sustainable development implementation status: https://esg.tsmc.com/en-US				

7.7 Climate-related Information of Listed Companies

Items	Execution Status
1. Description on the Board and Management's oversight and governance on climate-related risks and opportunities	•ESG Steering Committee: TSMC's top organization in climate change management. Chaired by the Chairman of TSMC with the chairperson of the ESG Committee serving as executive secretary. The Committee reviews TSMC's climate change strategies and goals every quarter and reports to the Board of Directors. •Energy Saving and Carbon Reduction Committee: The Company's management organization for taking action on climate change risk and opportunity. It is chaired by the Vice President of Fab Operations. Every quarter, this Committee formulates management plans, reviews implementation status, and discusses future plans.
2. Description on how the identified climate risks and opportunities impact the company's business, strategies, and finance (short, mid, long term)	TSMC identifies and updates climate risks and opportunities every two years based on the Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) framework. Please refer to the "Financial Impact Analysis and Response of Climate Risks and Opportunities" table for details on page 154-155 of this Annual Report.
3. Description on the impact extreme climate events and transitional actions have on finance	Please refer to the "Financial Impact Analysis and Response of Climate Risks and Opportunities" table for details on page 154-155 of this Annual Report.
4. Description on how the climate risk identification, assessment, and management process is integrated in the overall risk management system	Please refer to the Risk Management in "Management Structure of TSMC Climate-related Risks and Opportunities" table for details on page 154 of this Annual Report.
5. Should scenario analysis be used to assess the Company's resilience in face of climate change risks, explanations on the scenario, parameters, hypothesis, analysis factors and major financial impacts should be provided	TSMC selected high-emission scenarios (SSP5-8.5) from IPCC AR6 to analyze physical risks and assess the potential short, mid and long-term risks in TSMC facilities and supply chains. In addition to the existing flood, drought, and heat risks, the Company further evaluated risks such as wind disasters from typhoons, landslide disasters, and rising ocean levels. Meanwhile, TSMC increased its scope to cover all facilities around the world as well as five critical supply chains - direct raw materials, indirect raw materials, equipment, fab facilities, and parts and components. Analysis of physical risks shows that the risks of droughts are the most significant physical risks, which cause the impact to self-operation resulting financial loss and revenue decrease due to water shortage.
6. Should there be transitional programs in response to managing climate-related risks, please explain the program's content and metrics and targets used to identify and manage physical and transitional risks	TSMC actively implements greenhouse gas reduction measures in accordance with the 2050 Net Zero Transition Plan, in order to achieve the RE100 target by 2040 and net-zero emissions by 2050. Throughout the process, TSMC will continue to introduce the best energy-saving and carbon-reducing technologies to reduce emissions, and will continuously expand the use of renewable energy until reaching the RE100 goal. Ultimately, TSMC plans to achieve the net-zero transition target by partially offsetting emissions with carbon credits.
7. Should the internal carbon pricing be used as the planning tool, the pricing mechanism should be explained	Internal carbon prices include carbon tax (fee), regulatory fines, carbon reduction and renewable energy cost, and carbon market price.
8. Should climate-related targets be in place, information such as their scope of action, GHG emissions, planned timeline, and yearly achieved progress should be stated; for targets achieved through carbon offset and RECs, the source of offset amount and number of RECs should be stated	1. Reduce unit GHG emissions by 30% compared to the base year (metric ton of carbon dioxide equivalent ($MTCO_2e$)/12-inch equivalent wafer mask layer), and restore GHG emissions to the 2020 level in 2030, net zero emissions in 2050. 2. 60% renewable energy company-wide in 2030, 100% renewable energy company-wide in 2040. 2024 achievements: unit GHG emissions (metric ton of carbon dioxide equivalent ($MTCO_2e$)/12-inch equivalent wafer mask layer) increased by 19%; Used 3,610 GWh in renewable energy, and increased the proportion of renewable energy use to 14.1%.
9. GHG inventory and assurance status, and reduction goals, strategies and specific action plans	Please refer to "7.2.1 Environmental Protection – Climate Change and Energy Management" on page 154-155 of this Annual Report, "7.2.1 Environmental Protection – Greenhouse Gas (GHG) Emission Reduction and Energy Management" on page 155-156 of this Annual Report and the "TSMC GHG Emissions in Recent Two Years" table on page 173 of this Annual Report.

TSMC GHG Emissions in Recent Two Years

Year	Scope	Scope 1		Scope 2		Verification Party	Verification Guideline	Verification Statement
		Total Emissions (Metric Ton CO_2e)	Intensity (Metric Ton CO_2e / M NTD)	Total Emissions (Metric Ton CO_2e)	Intensity (Metric Ton CO_2e / M NTD)			
2024	Parent Company	1,581,312	0.55	10,926,644	3.79	DNV	ISO 14064-3	Reasonable Assurance
	VisEra Technologies Company Ltd.	5,043	0.50	30,753	3.07	DNV	ISO 14064-3	Reasonable Assurance
	TSMC China Company Limited	118,141	4.56	0	0	DNV	ISO 14064-3	Reasonable Assurance
	TSMC Nanjing Company Limited	53,216	0.77	0	0	DNV	ISO 14064-3	Reasonable Assurance
	TSMC Washington, LLC	53,723	9.04	0	0	Has not been verified yet		
	JASM	7,745	71.45	0	0	Has not yet been verified		
	3DIC	215	0.23	0	0	Has not yet been verified		
2023	Parent Company	1,307,966	0.61	10,150,252	4.71	DNV	ISO 14064-3	Reasonable Assurance
	VisEra Technologies Company Ltd.	4,399	0.61	37,135	5.13	DNV	ISO 14064-3	Reasonable Assurance
	TSMC China Company Limited	161,698	6.34	0	0	DNV	ISO 14064-3	Reasonable Assurance
	TSMC Nanjing Company Limited	45,118	0.74	0	0	DNV	ISO 14064-3	Reasonable Assurance
	TSMC Washington, LLC	76,851	9.28	0	0	AWN	ISO 14064-3	Limited Assurance

Note 1: GHG includes CO_2, CH_4, N_2O, HCFCs, PFCs, SF_6, NF_3
Note 2: Scope 1: Direct emissions, i.e. sources owned or controlled by the Company; according to the 2019 Refinement to the Guidelines for National Greenhouse Gases Inventories of the United Nations; and use the Global Warming Potential (GWP) referring to the Intergovernmental Panel on Climate Change (IPCC) AR5 for calculation.
Scope 2: Indirect emissions, i.e. those arising from externally purchased electricity, heat or steam. The calculation is according to market-based method.

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Subsidiary Information & Other Special Notes

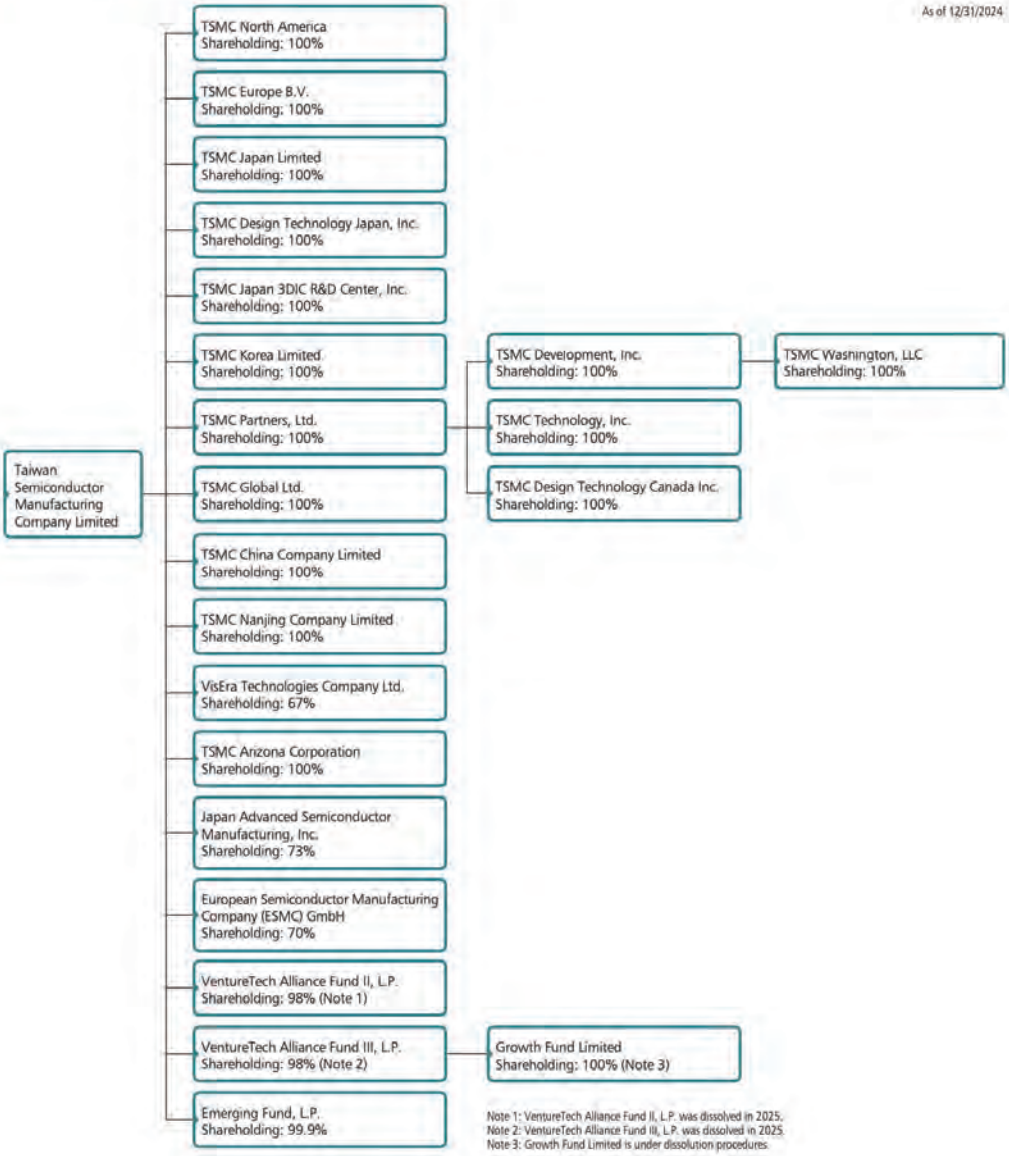
TSMC will continue to play a critical and integral role in the global semiconductor industry, while supporting our customers' growth.

8.1 Subsidiaries

For the Company's consolidated business reports of affiliated enterprises, please refer to "8.1.1 TSMC Subsidiaries Chart" to "8.1.6 Operational Highlights of TSMC Subsidiaries" of this Annual Report.

8.1.1 TSMC Subsidiaries Chart

As of 12/31/2024



Note 1: VentureTech Alliance Fund II, L.P. was dissolved in 2025.
Note 2: VentureTech Alliance Fund III, L.P. was dissolved in 2025.
Note 3: Growth Fund Limited is under dissolution procedures.

8.1.2 Business Scope of TSMC and Its Subsidiaries

TSMC and its subsidiaries strive to deliver the best possible foundry services. TSMC Washington, LLC in the United States and TSMC China provide 8-inch wafer capacity, while TSMC Nanjing provides 12-inch wafer capacity. In addition, TSMC Arizona in the United States and Japan Advanced Semiconductor Manufacturing, Inc. in Japan have entered volume production to provide 12-inch wafer capacity in fourth quarter of 2024 and year end 2024, respectively. TSMC's subsidiaries in North America, Europe, Japan, China, South Korea and other regions are dedicated to providing timely services and engineering support to customers worldwide and also support the Company's core foundry business with related services as well as investing in start-up companies in the semiconductor industry.

8.1.3 TSMC Subsidiaries

Unit: NT$ (USD, EUR, JPY, KRW, RMB, CAD) thousands

As of 12/31/2024

Company	Date of Incorporation	Place of Registration	Capital Stock		Business Activities
TSMC North America	Jan. 18, 1988	San Jose, California, U.S.	US$	11,000	Sales and marketing of integrated circuits and semiconductor devices
TSMC Europe B.V.	Mar. 04, 1994	Amsterdam, The Netherlands	EUR	100	Customer service and supporting activities
TSMC Japan Limited	Sep. 10, 1997	Yokohama, Japan	JPY	300,000	Customer service and supporting activities
TSMC Korea Limited	May 02, 2006	Seoul, Korea	KRW	400,000	Customer service and supporting activities
TSMC Design Technology Japan, Inc.	Jan. 10, 2020	Yokohama, Japan	JPY	750,000	Engineering support activities
TSMC Japan 3DIC R&D Center, Inc.	Mar. 29, 2021	Yokohama, Japan	JPY	2,450,000	Engineering support activities
TSMC China Company Limited	Aug. 04, 2003	Shanghai, China	RMB	4,502,080	Manufacturing, sales, testing, and computer-aided design of integrated circuits and other semiconductor devices
TSMC Nanjing Company Limited	May 16, 2016	Nanjing, China	RMB	6,650,119	Manufacturing, sales, testing, and computer-aided design of integrated circuits and other semiconductor devices
TSMC Arizona Corporation	Nov. 10, 2020	Arizona, U.S.	US$	17 (Note 1)	Manufacturing, sales, and testing of integrated circuits and other semiconductor devices
Japan Advanced Semiconductor Manufacturing, Inc.	Dec. 10, 2021	Kumamoto, Japan	JPY	207,232,200	Manufacturing, sales, and testing of integrated circuits and other semiconductor devices
European Semiconductor Manufacturing Company (ESMC) GmbH	Jun. 30, 2023	Dresden, Germany	EUR	1,050 (Note 2)	Manufacturing, sales, and testing of integrated circuits and other semiconductor devices
TSMC Technology, Inc.	Feb. 20, 1996	Delaware, U.S.	US$	0.001	Engineering support activities
TSMC Development, Inc.	Feb. 16, 1996	Delaware, U.S.	US$	0.001	Investing in companies involved in semiconductor manufacturing
TSMC Washington, LLC	Jun. 03, 1996	Delaware, U.S.	US$	0	Manufacturing, sales, and testing of integrated circuits and other semiconductor devices
TSMC Partners, Ltd.	Mar. 26, 1998	British Virgin Islands	US$	988,268	Investing in companies involved in the semiconductor design and manufacturing, and other investment activities
TSMC Design Technology Canada Inc.	May 28, 2007	Ontario, Canada	CAD	2,434	Engineering support activities
TSMC Global Ltd.	Jul. 18, 2006	British Virgin Islands	US$	19,384,000	Investment activities
VentureTech Alliance Fund II, L.P. (Note 3)	Feb. 27, 2004	Cayman Islands	US$	283	Investing in technology start-up companies
VentureTech Alliance Fund III, L.P. (Note 4)	Mar. 25, 2006	Cayman Islands	US$	67,400	Investing in technology start-up companies
Growth Fund Limited (Note 5)	May 30, 2007	Cayman Islands	US$	1,236	Investing in technology start-up companies
Emerging Fund, L.P.	Jan. 27, 2021	Cayman Islands	US$	88,103	Investing in technology start-up companies
VisEra Technologies Company Ltd.	Dec. 01, 2003	Hsinchu, Taiwan	NT$	3,173,081	Research, design, development, manufacturing, sales, packaging and test of color filter

Note 1: TSMC Arizona Corporation completed capital injections in January 2025 and February 2025 with capital stock of US$20 thousands post the capital injections.
Note 2: European Semiconductor Manufacturing Company (ESMC) GmbH will have capital injection in March 2025 with capital stock of EUR1,075 thousands post capital injection.
Note 3: VentureTech Alliance Fund II, L.P. was dissolved in 2025.
Note 4: VentureTech Alliance Fund III, L.P. was dissolved in 2025.
Note 5: Growth Fund Limited is under dissolution procedures.

8.1.4 Shareholders in Common of TSMC and Its Subsidiaries with Deemed Control and Subordination: None.

8.1.5 Rosters of Directors, Supervisors, and Presidents of TSMC's Subsidiaries

Unit: NT$ (USD), except shareholding

As of 12/31/2024

Company	Title	Name	Shareholding	
			Shares (Investment Amount)	% (Investment Holding %)
TSMC North America	Director Director CEO President	Sylvia Fang David Keller David Keller Sajiv Dalal	- - - - TSMC holds 11,000,000 shares	- - - - 100%
TSMC Europe B.V.	Director Director President	Wendell Huang Paul de Bot Paul de Bot	- - - TSMC holds 200 shares	- - - 100%
TSMC Japan Limited	Representative Director Director President	Makoto Onodera Sylvia Fang Makoto Onodera	- - - TSMC holds 6,000 shares	- - - 100%
TSMC Korea Limited	Representative Director Director Director	Wei-Li Chen Ray Wan Wendell Huang	- - - TSMC holds 80,000 shares	- - - 100%
TSMC Design Technology Japan, Inc.	Representative Director Director Supervisor	L.C. Lu Wendell Huang Morris Cheng	- - - TSMC holds 15,000 shares	- - - 100%
TSMC Japan 3DIC R&D Center, Inc.	Representative Director Director Supervisor	Jun He Diane Kao Morris Cheng	- - - TSMC holds 49,000 shares	- - - 100%
TSMC China Company Limited	Chairman Director Director Supervisor President	F.C. Tseng Y.P. Chyn Roger Luo Lora Ho Roger Luo	- - - - - (TSMC invests US$596,000,000)	- - - - - (100%)
TSMC Nanjing Company Limited	Chairman Director Director Director Supervisor Supervisor President	Lora Ho Y.P. Chyn Cliff Hou Roger Luo Wendell Huang Sylvia Fang Roger Luo	- - - - - - - (TSMC invests US$1,000,000,000)	- - - - - - - (100%)
TSMC Arizona Corporation	Chairman Director Director Director CEO President	Rick Cassidy Y.L. Wang Sylvia Fang Wendell Huang Y.L. Wang Rose Castanares	- - - - - - TSMC holds 17,850,000 shares (Note 1)	- - - - - - 100%

(Continued)

Company	Title	Name	Shareholding	
			Shares (Investment Amount)	% (Investment Holding %)
Japan Advanced Semiconductor Manufacturing, Inc.	Representative Director	Y.H. Liaw	-	-
	Director	Diane Kao	-	-
	Director	Chien-Hsin Lee	-	-
	Director	Yuichi Morita	-	-
	Director	Yasuhiro Kono	-	-
	Supervisor	Morris Cheng	-	-
	CEO	Y.H. Liaw	-	-
	President	Yuichi Morita	-	-
			TSMC holds 3,010,894 shares	72.65%
European Semiconductor Manufacturing Company (ESMC) GmbH	Shareholders' Committee Chairman	Arthur Chuang	-	-
	Shareholders' Committee Member	Chien-Hsin Lee	-	-
	Shareholders' Committee Member	Morris Cheng	-	-
	Shareholders' Committee Member	David Liu	-	-
	Shareholders' Committee Member	Stefan Joeres	-	-
	Shareholders' Committee Member	Rutger Wijburg	-	-
	Shareholders' Committee Member	Maarten Dirkzwager	-	-
	Managing Director	Ray Chuang	-	-
	Managing Director	Christian Kortzsch	-	-
			TSMC holds 735,000 shares (Note 2)	70% (Note 2)
TSMC Technology, Inc.	Chairman	Wendell Huang	-	-
	Director	L.C. Lu	-	-
	President	L.C. Lu	-	-
			TSMC Partners, Ltd. holds 10 shares	100%
TSMC Development, Inc.	Chairman	Wendell Huang	-	-
	Director	Sylvia Fang	-	-
	President	Wendell Huang	-	-
			TSMC Partners, Ltd. holds 10 shares	100%
TSMC Washington, LLC	Director	Y.H. Liaw	-	-
	Director	Wendell Huang	-	-
	President	Julian Lee	-	-
			TSMC Development, Inc. holds 293,636,833 shares	100%
TSMC Partners, Ltd.	Director	Wendell Huang	-	-
	Director	Sylvia Fang	-	-
	President	Wendell Huang	-	-
			TSMC holds 988,268,244 shares	100%
TSMC Design Technology Canada Inc.	Director	L.C. Lu	-	-
	Director	Cormac Michael O'Connell	-	-
	Director	Sylvia Fang	-	-
	President	L.C. Lu	-	-
			TSMC Partners, Ltd. holds 2,300,000 shares	100%
TSMC Global Ltd.	Director	Wendell Huang	-	-
	Director	Sylvia Fang	-	-
			TSMC holds 19,384 shares	100%
VentureTech Alliance Fund II, L.P. (Note 3)	None	None	(TSMC invests US$277,199)	(98.00%)
VentureTech Alliance Fund III, L.P. (Note 4)	None	None	(TSMC invests US$66,052,139)	(98.00%)
Growth Fund Limited (Note 5)	None	None	(VentureTech Alliance Fund III, L.P. invests US$1,235,897)	(100%)
Emerging Fund, L.P.	None	None	(TSMC invests US$88,014,901)	(99.90%)
VisEra Technologies Company Ltd.	Chairman	Robert Kuan	264,500 shares	0.08%
	Director	Chien-Hsin Lee	-	-
	Director	David Liu	-	-
	Independent Director	Laura Huang	-	-
	Independent Director	Emma Chang	-	-
	Independent Director	P.H. Chang	-	-
	Independent Director	Han-Fei Lin	-	-
	CEO/President	Robert Kuan	-	-
			TSMC holds 213,619,000 shares	67.32% (Note 6)

Note 1: TSMC Arizona Corporation completed a capital injection in January 2025, which included 1,350,000 shares of advance receipts. In addition, TSMC Arizona Corporation completed capital injections in February 2025. After the capital injections, TSMC holds 19,550,000 shares and 100% equity interests in TSMC Arizona Corporation.
Note 2: European Semiconductor Manufacturing Company (ESMC) GmbH ("ESMC") will have capital injection in March 2025. After the capital injection, TSMC will hold 752,500 shares and 70% equity interests in ESMC.
Note 3: VentureTech Alliance Fund II, L.P. was dissolved in 2025.
Note 4: VentureTech Alliance Fund III, L.P. was dissolved in 2025.
Note 5: Growth Fund Limited is under dissolution procedures.
Note 6: As of February 2025, TSMC's ownership of VisEra is 67.32% due to VisEra's continuous execution of the Employee Stock Purchase Plan.

8.1.6 Operational Highlights of TSMC Subsidiaries

Unit: NT$ thousands, except EPS (NT$) As of 12/31/2024

Company	Capital Stock	Assets	Liabilities	Net Worth	Net Revenues	Income (Loss) from Operation	Net Income (Loss)	Basic Earning (Loss) Per Share
TSMC North America	360,448	494,324,245	486,467,322	7,856,923	2,066,605,288	4,043,133	1,141,666	103.79
TSMC Europe B.V.	3,410	1,008,995	377,056	631,939	664,737	234,275	41,506	207,530.55
TSMC Japan Limited	62,760	257,933	128,707	129,226	274,314	120,578	4,694	782.39
TSMC Design Technology Japan, Inc.	156,900	604,720	186,337	418,383	870,534	275,458	42,836	2,855.72
TSMC Japan 3DIC R&D Center, Inc.	512,540	1,709,053	365,683	1,343,370	946,628	278,339	177,952	3,631.67
TSMC Korea Limited	8,920	46,125	2,361	43,764	12,933	1,202	1,913	23.92
TSMC Development, Inc.	0.03	39,632,534	0	39,632,534	828,447	(172,992)	(346,954)	(34,695,416.00)
TSMC Partners, Ltd.	32,383,574	76,837,398	69	76,837,329	1,888,987	1,737,572	1,723,648	1.74
TSMC Global Ltd.	635,174,912	1,019,515,522	247,077,568	772,437,954	42,998,157	37,342,396	37,342,396	2,533,544.43
TSMC Washington, LLC	0	7,999,932	2,474,418	5,525,514	5,945,919	(1,362,667)	(1,001,385)	(3.41)
TSMC China Company Limited	20,213,889	114,583,264	4,071,951	110,511,313	25,913,486	10,995,390	11,273,152	NA
TSMC Nanjing Company Limited	29,858,371	149,167,726	32,202,147	116,965,579	69,035,463	25,960,606	25,954,842	NA
VisEra Technologies Company Ltd.	3,173,081	24,739,536	6,675,790	18,063,746	10,002,074	2,007,339	1,738,905	5.49
TSMC Arizona Corporation	541	842,626,491	298,124,387	544,502,104	0	(24,291,263)	(14,298,315)	(1,144.92)
Japan Advanced Semiconductor Manufacturing, Inc.	43,352,976	161,575,137	82,560,347	79,014,790	108,406	(8,363,000)	(4,375,561)	(1,177.09)
European Semiconductor Manufacturing Company (ESMC) GmbH	35,807	26,750,103	1,735,717	25,014,386	0	(702,304)	(556,876)	(596.52)
TSMC Technology, Inc.	0.03	3,951,653	2,392,307	1,559,346	5,101,227	1,703,297	351,561	35,156,111.50
TSMC Design Technology Canada Inc.	55,614	512,774	88,702	424,072	379,415	30,046	52,594	22.87
VentureTech Alliance Fund II, L.P.	9,269	0	0	0	2,592	(2,815)	(3,177)	NA
VentureTech Alliance Fund III, L.P.	2,208,568	0	0	0	4,254	1,062	1,062	NA
Growth Fund Limited	40,498	0	0	0	5,927	4,307	4,254	NA
Emerging Fund, L.P.	2,886,959	3,217,273	34	3,217,239	14,659	(17,367)	(17,367)	NA

8.1.7 Consolidated Financial Statements and Affiliation Reports of Affiliated Enterprises

Please refer to our company's consolidated financial statements on the Market Observation Post System (MOPS).
Link to MOPS: https://mops.twse.com.tw/mops/#/web/home

8.2 Special Notes

8.2.1 Private Placement Securities in 2024 and as of the Date of this Annual Report: None.

8.2.2 Any Events in 2024 and as of the Date of this Annual Report that Had Material Impacts on Shareholders' Interests or Securities Prices as Stated in Item 3 Paragraph 2 of Article 36 of Securities and Exchange Act of Taiwan: None.

8.2.3 Other Necessary Supplement: None.

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TSMC's depositary receipts of the common shares are listed on New York Stock Exchange (NYSE) under the symbol TSM. The information relating to TSM is available at https://www.nyse.com and https://mops.twse.com.tw

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Our vision is to be the most advanced and largest technology and foundry services provider to fabless companies and IDMs, and in partnership with them, to forge a powerful competitive force in the semiconductor industry.

TSMC Vision

tsmc

Taiwan Semiconductor Manufacturing Company, Ltd.

C.C. Wei, Chairman

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