



TSMC Annual Report 2017 (I)

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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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Shareholders / Investors

As technology and end applications undergo unprecedented change for the new digital age, our dedicated foundry business model will remain the foundation of our success. Our business model will continue to lead our way in creating value and generating strong returns to our shareholders.

Letter to Shareholders

Dear Shareholders,

2017 was a solid year for TSMC as we delivered another year of record revenue, net income and earnings per share. TSMC's technology leadership and manufacturing excellence, as well as our ongoing commitment to R&D and capacity investment, enabled us to capture opportunities in mobile devices, high-performance computing, the Internet of Things, and automotive semiconductors. Our continuing technological progress across the broad spectrum of advanced semiconductor process technologies lays a good foundation and builds a strong momentum for TSMC in the coming years.

"Being everyone's foundry" is at the heart of TSMC strategy. Through the expansion of our technology and services, we build an open platform that welcomes all innovators in the semiconductor industry to realize their innovations and see their products brought to market in volume quickly. TSMC's ability to address the increasing needs for specific technology requirements, through the most comprehensive range of technology offerings and our vast and flexible manufacturing capacity, enable us to cast a wide net to capture the varying waves of product innovations in the semiconductor industry.

In 2017, we saw computation expanding in the cloud and on the edge; major mobile products with enriched features adopted advanced processes; the need for safer, smarter and greener vehicles drove strong automotive semiconductor demand; and the readiness of ubiquitous connectivity provided exciting growth in the Internet of Things (IoT). AI (artificial intelligence) is expected to be embedded in all the above applications. As "everyone's foundry", we were able to participate in these growing segments of the industry and continued to expand our foundry market segment share.

We continued to make significant advances in leading-edge process technologies in 2017. 10-nanometer set a new record in terms of ramp-up speed, and represented 10% of our total wafer revenue in its first year. Our industry-first 7-nanometer was transferred from R&D to manufacturing in 2017, and will begin volume production in the second quarter of 2018. Our 7-nanometer+ will follow and enter risk production later in 2018. We broke ground for Fab 18 in January 2018 for 5-nanometer, which will see extensive use of EUV (extreme ultraviolet) lithography with volume production targeted to start in 2020. Our proprietary CoWoS[®] (Chip on Wafer on Substrate) and InFO (integrated fan-out) advanced packaging solutions also continue to see enthusiastic adoption by customers in HPC (high performance computing), mobile and other high speed applications.

Highlights of TSMC's accomplishments in 2017:

- Total wafer shipments increased 8.8 percent from 2016 to reach 10.5 million 12-inch equivalent wafers.
- Advanced technologies (28-nanometer and beyond) accounted for 58 percent of total wafer revenue, up from 54 percent in 2016.
- We deployed 258 distinct process technologies, and manufactured 9,920 products for 465 customers.
- TSMC's market share in the total semiconductor foundry segment rose successively during the last eight years and reached 56 percent in 2017.

2017 Financial Performance

In 2017, our consolidated revenue totaled NT\$977.45 billion, an increase of 3.1 percent over NT\$947.94 billion in 2016, despite a significant appreciation in the NT dollar in this period. Net income was NT\$343.11 billion and diluted earnings per share were NT\$13.23. Both increased 3 percent from the 2016 level of NT\$334.25 billion net income and NT\$12.89 diluted EPS.

Gross profit margin was 50.6 percent compared with 50.1 percent in 2016, while operating profit margin was 39.4 percent compared with 39.9 percent a year earlier as R&D spending ratio increased. Net profit margin was 35.1 percent, a decrease of 0.2 percentage points from the prior year's 35.3 percent.

TSMC further raised its cash dividend payment to NT\$7.0 per share for 2016 profit distribution from NT\$6.0 a year ago.

Technological Developments

In 2017, we have increased our R&D expense by 13.5% over 2016, with a large number of new technology introduction, to meet our customer needs and to extend our technology leadership.

TSMC's 28/22-nanometer technology saw a record number of product tape-outs in 2017, thanks to its differentiated and diverse offerings. To further enhance the technology performance, we have also developed 22ULP (ultra-low power) and 22ULL (ultra-low leakage) technologies to address IoT and RF-related applications. We are confident that our continued performance enhancement, strong manufacturing capability, and flexible capacity can further strengthen our position in 28/22-nanometer node for years to come.

TSMC's 16-nanometer FinFET technology remains robust as it enters its fourth year of volume production in 2018. Strong tape-out activities covered a variety of mainstream smartphones, cryptocurrency, AI, GPU and RF products. We continued to expand the technology portfolio by developing 12FFC (FinFET Compact) in 2017, which drives die size and power efficiency to serve demand in mobile, consumer electronics, digital TV and IoT applications.

10-nanometer FinFET technology started high-volume shipments in early 2017 and successfully supported a major customer's new mobile product launches. Thanks to its aggressive geometric shrinkage, this technology provides excellent density/cost benefits to support customer needs in performance-driven market segments, including application processors, cellular baseband and ASIC CPUs. As a result, we expect a continued growth of our 10-nanometer business in 2018.

We successfully introduced TSMC's 7-nanometer technology in 2017. Customer adoption of 7-nanometer is very strong and we received more than ten product tape-outs in 2017. A total of more than 50 customer product tape-outs are expected by the end of 2018. TSMC's 7-nanometer+ technology will be introduced in 2018. We have already demonstrated the same yield level of 256M bit SRAM as compared to 7-nanometer.

Furthermore, TSMC's 5-nanometer technology development is well on track for risk production in the first quarter of 2019. Both device performance and SRAM development vehicle yield improvement are on our plan. Customer test chips are already running in our fab.

In advanced packaging, TSMC's second generation InFO technology began volume production for advanced mobile products in 2017, while InFO_oS (Integrated Fan-Out on Substrate) technology is expected to complete qualification in 2018 for HPC (high performance computing) products. We also extended our interposer CoWoS technology to 12-nanometer and are actively developing 7-nanometer solutions to further support the requirements of HPC applications, such as AI, data server, and networking.

TSMC's ecosystem, the Open Innovation Platform (OIP), is an important factor in empowering customers to unleash their innovations with fast time-to-market. We continued to work with our ecosystem partners to expand our libraries and silicon IP portfolio in 2017 to more than 16,000 items. More than 9,000 technology files and over 300 process design kits were available to customers via TSMC-Online which saw more than 100,000 customer downloads in 2017.

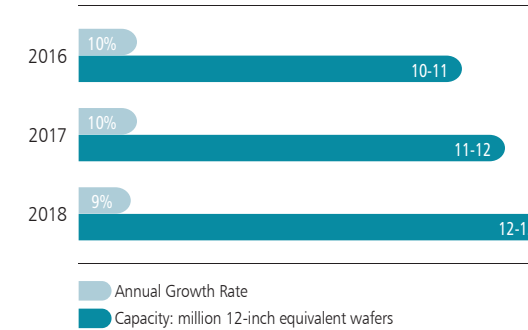
Corporate Developments

In October 2017, I, as TSMC Chairman for the last thirty years, announced my plan to retire from the Company immediately after the Annual Shareholders Meeting in early June, 2018. All present directors of the board, except myself, have unanimously agreed to be nominated, and if elected, will serve as directors of the board during the next term. They all have agreed to have TSMC under the dual leadership of Dr. Mark Liu and Dr. C.C. Wei, who are TSMC's presidents and Co-CEOs currently. Dr. Liu will be the Chairman of the Board, and Dr. Wei will be the Chief Executive Officer.

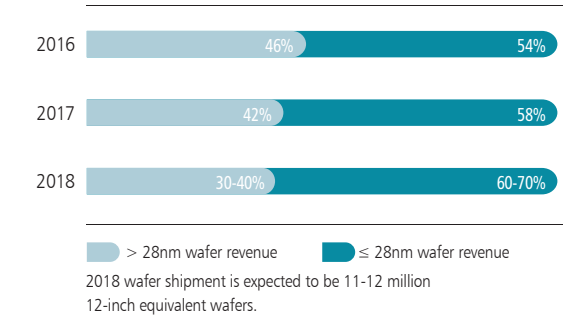
Honors and Awards

TSMC received recognition for achievements in innovation, business information disclosure, corporate governance, sustainability, investor relations and overall excellence in management from organizations including *Forbes*, *Fortune Magazine*, *Newsweek*, *CommonWealth Magazine*, *The Nikkei*, PricewaterhouseCoopers, RobecoSAM and the Taiwan Stock Exchange. TSMC continued to receive multiple awards from *Institutional Investor Magazine* and was ranked among the top global companies by *IR Magazine*. TSMC was chosen once again as a component of the Dow Jones Sustainability Indices, becoming the only semiconductor company to be selected for 17 consecutive years. Meanwhile, we remained a major component in both MSCI ESG and FTSE4Good Emerging Index, reflecting our ongoing commitment to sustainability and corporate social responsibility.

Capacity Plan



Wafer Sales Plan

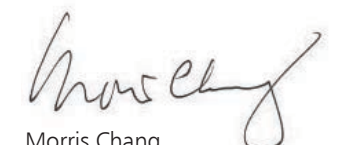


Outlook

TSMC's enduring business model, our ecosystem of partnerships across the industry, and our core values of integrity, commitment, innovation, and customer trust have well positioned us to serve as everyone's foundry and enabled win-win partnership between TSMC and IC innovators. TSMC will continue to advance our semiconductor process technologies and strengthen our manufacturing capabilities to meet the ever-increasing requirements of our customers and stay at the forefront to unleash innovation.



As technology and end applications undergo unprecedented change for the new digital age, our dedicated foundry business model will remain the foundation of our success. Our business model will continue to lead our way in creating value and generating strong returns to our shareholders. I would like to personally thank our shareholders for your long-term support to TSMC. While we have come a long way over the past thirty years, there is still much more ahead of us to achieve, and I am ever more confident that the best is yet to come.


 Morris Chang
 Chairman



TSMC's enduring business model, our ecosystem of partnerships across the industry, and our core values of integrity, commitment, innovation, and customer trust have well positioned us to serve as "everyone's foundry" and enabled win-win partnership between TSMC and IC innovators.

Company Profile

2.1 An Introduction to TSMC

Established in 1987 and headquartered in Hsinchu Science Park, Taiwan, TSMC pioneered the pure-play foundry business model by focusing solely on manufacturing customers' products. By choosing not to design, manufacture or market any semiconductor products under its own name, the Company ensures that it never competes directly with its customers. Today, TSMC is the world's largest semiconductor foundry, manufacturing 9,920 different products using 258 distinct technologies for 465 different customers in 2017.

With a large and diverse global customer base, TSMC-manufactured semiconductors are used in a wide variety of applications covering many segments of the computer, communications, consumer, industrial and standard semiconductor markets. Strong diversification helps to smooth fluctuations in demand, which, in turn, helps TSMC maintain higher levels of capacity utilization and profitability.

Annual capacity of the manufacturing facilities managed by TSMC and its subsidiaries exceeded 11 million 12-inch equivalent wafers in 2017. These facilities include three 12-inch wafer GIGAFAB® fabs, four 8-inch wafer fabs, and one 6-inch wafer fab in Taiwan, as well as one 12-inch wafer fab at a wholly owned subsidiary: TSMC Nanjing Company Limited, and two 8-inch wafer fabs at wholly owned subsidiaries: WaferTech in the United States and TSMC China Company Limited. In 2016, TSMC Nanjing Company Limited was established, managing a 12-inch wafer fab and a design service center.

TSMC provides customer service through its account management and engineering services offices in North America, Europe, Japan, China, and South Korea. At the end of 2017, the Company employed more than 48,000 people.

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 2017, TSMC maintained its leading position in the total foundry segment of the global semiconductor industry, with an estimated market share of 56%, despite intense competition from both established players and relatively new entrants to the business.

Leadership in advanced process technologies is a key factor in the Company's strong market position. In 2017, 58% of TSMC's wafer revenue came from advanced manufacturing processes (geometries of 28nm and below), up from 54% in 2016.

With TSMC's focus on customer trust, the Company strengthened its Open Innovation Platform® (OIP) initiative in 2017 with additional services. TSMC held its 2017 Open Innovation Platform® Ecosystem Forum in September in Santa Clara, California, and in November in Shenzhen. The annual event demonstrates how TSMC and our ecosystem partners jointly develop design solutions on top of TSMC's advanced technologies through OIP collaboration. TSMC executive delivered keynote on TSMC's design enablement platforms, together with each platform's respective solutions jointly developed and delivered with OIP partners. Feature talks by three executives of TSMC's EDA/IP partners followed, highlighting their long-term collaboration with TSMC that helps customers innovate and capture market opportunities.

TSMC offers the foundry segment's broadest technology portfolio and continues to invest in advanced technologies and specialty technologies, which provide customers more added value and are key differentiators for TSMC vis-à-vis our competitors.

In 2017, the Company either developed or introduced the following:

Logic Technology

- 5nm FinFET (Fin field-effect transistor) technology development is progressing smoothly. Risk production of this technology is planned for the first quarter of 2019. Compared to 7nm FinFET technology, 5nm FinFET offers over 15% speed improvement or 30% power reduction. In addition, 5nm FinFET technology is optimized upfront for both mobile applications and high-performance computing devices.
- 7nm FinFET technology development was completed and entered risk production in April 2017 as planned. Customer adoption was strong and we received more than ten product tape-outs in 2017. A very fast yield ramp-up is expected as more than 95% of tools for 7nm FinFET technology are compatible with those for 10nm FinFET technology. Compared to 10nm FinFET technology, 7nm FinFET offers approximately a 25% speed improvement or a 35% power reduction. In addition, 7nm FinFET technology can be optimized for mobile applications and high-performance computing devices.
- 10nm FinFET technology started high-volume shipments in the first quarter of 2017. Thanks to its aggressive geometric shrinkage, this technology provides excellent density/cost benefits to support customer needs in performance-driven market segments, including mobile, server and graphics.
- 12nm FinFET Compact technology (12FFC) completed all process qualifications in the second quarter of 2017 and entered volume production in the second half of the year. 12FFC technology is TSMC's latest 16nm family offering following 16nm FinFET Plus technology (16FF+) and 16nm FinFET Compact technology (16FFC). 12FFC drives die size and power consumption to the best levels of the foundry's 16/14nm technology. 16FF+, which first entered volume production in 2015, is aimed at customers in high-performance market segments, including mobile, server, graphics, and cryptocurrency. The cost-effective 16FFC started volume production in the first quarter of 2016. 16FFC can maximize die cost scaling by incorporating optical shrink and process simplification at the same time. Both 16FFC and 12FFC can satisfy customer needs in mainstream and ultra-low-power (ULP) market segments, including low-end to mid-range mobile phones, consumer electronics, digital TV and the IoT (Internet of Things). With innovative standard cell structures, 12FFC can also be used in more advanced applications. So far, 16FF+/16FFC/12FFC have received a total of more than 200 product tape-outs, most of which have been first-time silicon successes.
- 22nm ultra-low power (22ULP) technology was developed based on TSMC's industry-leading 28nm technology and is expected to start production in the second half of 2018. Compared to 28nm High Performance Compact (28HPC) technology, 22ULP provides 10% area shrink with more than 30% speed gain or more than 30% power reduction for applications including image processing, digital TV, set-top box, smartphone, IoT and consumer products.
- 22nm ultra-low leakage (22ULL) technology development achieved good progress. New ULL device and ULL SRAM can provide lower power consumption compared to 40ULP and 55ULP solutions. 22ULL technology targets the IoT and wearable devices applications and is expected to start risk production in the second half of 2018.
- 28nm high performance compact plus (28HPC+) technology accumulated more than 150 product tape-outs as of 2017. 28HPC+ technology provides further performance enhancement or power reduction in mainstream smartphone, digital TV, storage, audio and SoC (System-on-Chip) applications. Compared to 28HPC technology, 28HPC+ technology improves device performance by 15% or reduces leakage by 50%. 28HPC+ technology enables low Vdd (voltage drain) designs in ULP applications for the IoT market and is seamlessly applicable to the 28nm ecosystem, accelerating time-to-market for customers.
- 40nm ULP technologies received over 20 product tape-outs in 2017. These technologies target the IoT and wearable devices applications, such as wireless connectivity, application processors and sensor hub applications. In addition, TSMC uses its leading 40nm ULP Near-Vt (Near Threshold Voltage) technology to produce the world's lowest energy consumption solutions for IoT devices and for wearable connected devices. Still under development are new enhanced analog devices that will enrich the 40ULP platform to support customers for more analog design needs in the future.
- 55nm ultra-low power (55ULP) technology volume production continued and accumulated more than 40 customer tape-outs as of 2017. Compared to 55nm Low Power (55LP) process, 55ULP can significantly increase battery life for IoT applications. In addition, it integrates RF and eFlash (embedded Flash) to simplify customers' SoC designs.

Specialty Technology

- 16FF+ technology began production for customer applications in the automotive industry in 2017. 16FFC Foundation IPs (intellectual properties) passed the Automotive Electronic Council AEC-Q100 Grade-1 qualification and were certified for functional safety standard ISO 26262 ASIL-B. In addition, TSMC 9000A was introduced for automotive IP management to complete the automotive ecosystem with third-party IP vendors.
- 16FFC RF technology was extended to next generation Wireless Local Area Network (WLAN 802.11ax) and Millimeter Wave (mmWAVE) applications, in addition to wireless connectivity applications such as smartphone, the 5th generation mobile network (5G).
- 22nm RF (22ULP RF) technology supports high Ft devices and more flexible process design kits (PDK), while providing reliable simulation models for chip development and production for 5G mobile and wireless communication systems, mmWave, RF TRx and IoT applications.
- 28nm RF (28HPC RF and 28HPC+ RF) technologies offer >300 Gigahertz (GHz) high-frequency devices and support wireless components in smartphone, automotive and IoT applications.
- 40nm ULP embedded flash, which began volume production in 2016 for applications such as wireless MCU (Microcontroller Unit) IoT devices, wearable devices, and high-performance MCU, is expected to complete Automotive Electronic Council AEC-Q100 qualification in 2018.
- 40nm ULP embedded Resistive Random Access Memory (RRAM) completed technology development and was ready for risk production by the end of 2017. Applications include wireless MCU, IoT and wearable devices.
- 0.13 μ m SPAD (Single-Photon Avalanche Diode) technology platform speeds up customer product development of LiDAR (Light Detection and Ranging) applications. 3D (Three Dimensional) imaging and sensing are becoming more important for machine vision, and LiDAR is a critical technology to serve these applications. Customers can use TSMC's industry-leading SPAD platform to design SPAD sensors and achieve the best time-to-market, which will greatly accelerate LiDAR's use in automotive and security industries.
- 12-inch 0.13 μ m BCD (Bipolar-CMOS-DMOS) Plus technology, which provides superior cost competitiveness compared to the prior 0.13 μ m BCD technology, passed process validation by customers and started production in the second half of 2017.

- 0.18 μ m BCD third generation, which provides superior cost competitiveness compared to the second generation, also passed process validation by customers and started volume production in the second half of 2017.
- In addition to TSMC's popular capacitive fingerprint sensor technology, the Company expanded its technology offering for optical fingerprint sensing, from 0.18 μ m and 0.11 μ m CMOS image sensors (CIS) to collimator, enabling customers to customize their optical fingerprint sensors. Fingerprint sensing is a critical authentication scheme for many electronic communications and payment systems.
- A Piezo technology pilot line was set up in 2017 to help customers design and develop new products for micro speakers, microphones, ultrasonic sensors, and various types of actuators serving medical and health applications. Piezo technology is a new area in MEMS (Micro-electromechanical Systems) with high potential. New types of piezoelectric thin film materials have been pre-characterized, so that customers can focus on product design and architecture to achieve best time-to-market.

Advanced Packaging Technology

- For advanced mobile device applications, TSMC began volume production of the second generation of InFO-PoP (Integrated Fan-Out, Package on Package) technology that integrates 10nm SoC and DRAM for advanced mobile products in the second quarter of 2017.
- For high performance computing applications, TSMC began production of CoWoS[®] (Chip on Wafer on Substrate) technology, featuring heterogeneously integrating 12nm SoC plus four stacks of 8-hi (8 high) second generation high bandwidth memory (HBM2) on an about 1500mm² interposer, in the first half of 2017. Also, TSMC successfully developed a CoWoS[®] module that integrates a 16nm SoC and more than four 8-hi HBM2 stacks in 2017.
- In addition to CoWoS[®], InFO_oS (Integrated Fan-Out on Substrate) technology integrating multiple SoC chips is expected to complete qualification in 2018.
- Continued volume production of fine pitch Cu bump for flip chip packaging on \geq 10nm silicon in 2017. In addition, Cu bump on 7nm silicon was qualified for production in 2018. TSMC also continued volume production on \geq 28nm silicon in WLCSP (Wafer Level Chip Scale Packaging) technologies for high-end smartphone applications in 2017 and completed 16nm WLCSP qualification for 2018 production.

2.2.2 Market Overview

TSMC estimates that the worldwide semiconductor market in 2017 was US\$434 billion in revenue, representing a strong 22% year-over-year growth, after a flat year in 2016. In the foundry segment of the semiconductor industry, total revenue was US\$53 billion in 2017, up 7% year-over-year, close to the 8% growth in 2016.

2.2.3 Industry Outlook, Opportunities and Threats

Industry Demand and Supply Outlook

Back-to-back years of growth in the foundry segment were driven mainly by healthy market demand. TSMC forecasts that the total semiconductor market excluding memory will grow 5% in 2018. Over the longer term, fueled by increasing semiconductor content in electronic devices, continuing market share gains by fabless companies, gradual increases in IDM outsourcing, and expanding in-house application-specific integrated circuits (ASIC) from systems companies, the Company expects foundry segment revenue growth to be much stronger than the 4% compound annual growth rate projected for the overall semiconductor industry excluding memory from 2017 through 2022.

As an upstream supplier in the semiconductor supply chain, the foundry segment is tightly correlated with the market health of the three "C" sectors, communications, computers and consumer goods, as well as with the emerging IoT markets.

● Communications

For the communications sector, smartphone's unit shipment grew 3% in 2017. Although the growth has slowed down in recent years, TSMC projects a steady low-single digit increase in the smartphone market in 2018 thanks to the continuing transition to 4G/LTE, LTE-Advanced and LTE-Advanced Pro. Improved performance, longer battery life, biosensors and more AI features will continue to propel smartphone sales; and the increasing popularity of low-end smartphones in emerging countries will also drive growth in this sector.

Low-power IC is an essential requirement among handset manufacturers. And SoC design, in which TSMC is already the leader, is the preferred solution due to its optimized cost, power and form factor (device footprint and thickness) potential. The migration to advanced process technologies will continue to accelerate, spurred by the appetite for higher performance to run AI applications, various complex software routines and higher resolution video.

● Computer

After a 6% decline in 2016, the overall computer sector's unit shipment dropped another 3% year-over-year in 2017. The decline was due to personal computer's prolonged replacement cycle and consumer usage moving towards mobile computing, partially offset by server unit's positive growth.

The computer sector is expected to continue its low-single digit unit decline in 2018. However, several factors are expected to help buoy computer sector demand, including increasing form varieties, the business adoption of new operating systems, and consumer replacements of aging PCs; as well as the growing high performance applications, including machine learning, blockchain, and cryptocurrency mining.

All these require lower power and higher performance CPU, GPU, HDD Controller, and ASICs, which will drive computer sector towards richer silicon content and more advanced process technologies.

● Consumer

Compared to a 5% decline in 2016, consumer unit shipments fell 4% in 2017. TV game consoles showed positive growth, while the rest of the sector – TVs, set-top boxes, MP3 players, digital cameras and hand-held game consoles – decreased due to high LCD panel and memory cost, as well as functional cannibalization by smartphones.

Continued drop in consumer electronics is expected in 2018, while certain sub-segments such as TV game consoles and 4K (UHD) TVs should achieve positive growth within the sector. With its broad array of advanced technology offerings, TSMC expects to take advantage of the trend in this market toward more AI functions (e.g. voice recognition/control) to be incorporated in TVs and set-top boxes.

● IoT

The Internet of Things (IoT) is fast becoming the "next big thing," as more and more devices are being connected to the internet. By 2025 it is estimated that the IoT's installed unit base will be ten times greater than that of smartphones. Applications and products benefiting from IoT related technologies include smart wearables, home robots, smart meters, smart manufacturing, self-driving cars, and so on. These applications and products will require much longer battery life, diversified sensors and low-power wireless connections, which will challenge technology development in

new ways. TSMC's ultra-low-power logic and RF solutions and diversified sensing technologies will lead the way for this future growth.

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 handle fluctuating demand dynamics. Foundry vendors play an important role to ensure 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 along the downstream chain.

2.2.4 TSMC Position, Differentiation and Strategy

Position

TSMC is the worldwide semiconductor foundry leader for both advanced and specialty process technologies, commanding a 56% market share in 2017. Net revenue by geography, based mainly on the country in which customers are headquartered, was: 64% from North America; 11% from the Asia Pacific region, excluding China and Japan; 11% from China; 7% from Europe, the Middle East and Africa; and 7% from Japan. Net revenue by end-product application was: 10% from the computer sector, 59% from communications, 8% from consumer products, and 23% from industrial and standard products.

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 next-generation, leading-edge technologies. The Company has also established its leadership on more mature technology nodes by applying the lessons learned on leading-edge technology development to enrich its specialty technologies to more advanced process nodes. Beyond process technology, TSMC has established frontend

and backend integration capabilities that create the optimum power/performance/area "sweet spot" and result in faster time-to-production.

TSMC, well known for its industry-leading manufacturing management capabilities, extends that leadership through its Open Innovation Platform® and Grand Alliance initiatives. The TSMC Open Innovation Platform® initiative quickens the pace of innovation in the semiconductor design community and among its ecosystem partners, as well as the Company's own IP, design implementation and design for manufacturing capabilities, process technology and backend services. A key element is a set of ecosystem interfaces and collaborative components initiated and supported by TSMC that 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, IP partners, and key equipment and material suppliers at a new, higher level of collaboration. Its objective is to help customers, alliance members and TSMC win business and increase competitiveness.

The foundation for customer trust is a commitment TSMC made when it opened for business in 1987 to never compete with its customers. As a result, TSMC has never owned or marketed a single semiconductor product, but instead has focused all of its resources on becoming the trusted foundry for its customers.

Strategy

TSMC is confident that its differentiating strengths will enable it to prosper from the foundry segment's many attractive growth opportunities. In light of the rapid growth in four major markets, namely mobile, high-performance computing, automotive electronics, and the Internet of things (IoT), and the fact that focus of customer demand is shifting from process-technology-centric to product-application-centric, TSMC has constructed four different technology platforms to provide customers with the most comprehensive and competitive logic process technologies, specialty technologies, IPs, and packaging and testing technologies to shorten customers' time-to-design and time-to-market.

Mobile platform: TSMC offers leading process technologies such as 7nm FinFET, 10nm FinFET, 16nm FinFET Plus technology, and 20nm SoC logic process technologies, as well as comprehensive IPs for premium product applications to further enhance chip performance, reduce power consumption, and decrease chip size. For low-end to high-end product applications, TSMC offers leading process technologies such as 12nm FinFET Compact technology, 16nm FinFET compact technology, 28nm high performance compact, 28nm high performance mobile compact plus, and 22nm ultra-low power logic process technologies, in addition to comprehensive IPs to satisfy customer needs for high-performance and low-power chips. Furthermore, for premium, high-end, mid-level, and low-end product applications, TSMC also offers the most competitive, leading-edge specialty technologies, including RF, embedded flash memory, emerging memory technologies, power management, sensors, and display chips as well as advanced packaging technologies such as the leading integrated fan-out (InFO) technology.

High-performance computing platform: TSMC provides customers with leading process technologies such as 7nm FinFET and 16nm FinFET, as well as comprehensive IPs, including high-speed interconnect IPs, to meet customers' high-performance computing and communication requirements. TSMC also offers multiple advanced packaging technologies such as CoWoS® and 3D IC technologies to enable homogeneous and heterogeneous chip integration to meet customers' performance, power, and system footprint requirements. TSMC will continue to optimize its high-performance computing platform offerings to help customers capture market growth driven by data explosion and application innovation.

Automotive electronics platform: TSMC offers leading 7nm FinFET, 16nm FinFET, 28nm, and 40nm logic process technologies, various leading and competitive specialty technologies in RF, embedded flash memory, sensors, multiple power management technologies that pass the AEC-Q100 qualifications.

IoT platform: TSMC provides industry's leading and comprehensive ultra-low power technology platform to support innovations for IoT and wearable applications. TSMC's

leading offerings, including 55nm ULP, 40nm ULP, 28nm ULP, 22nm ULP/Ultra-low leakage, have been widely adopted by various IoT and wearable applications. TSMC extends its offering with Near-Vt technology for extreme low power applications. TSMC also offers the most competitive and leading-edge specialty technologies in RF, embedded flash memory, emerging memory, sensors, and display chips, as well as multiple advanced packaging technologies including leading InFO technology.

TSMC continually strengthens its core competitiveness and deploys both short-term and long-term technology and business development plans, and assists customers in taking on the challenges of short product cycles and intense competition in the electronic products market to meet ROI and growth objectives.

• Short-Term Semiconductor Business Development Plan

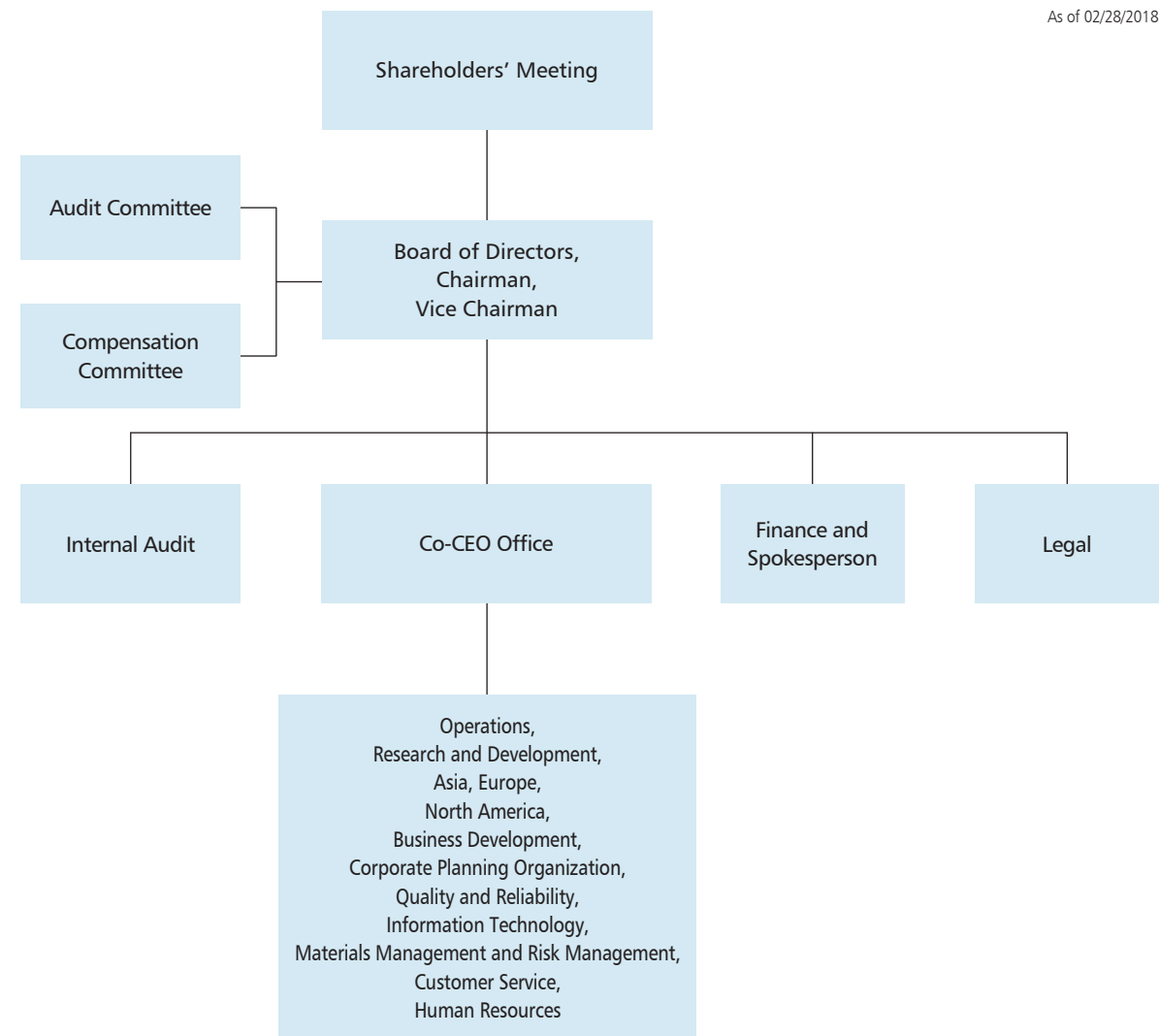
1. Substantially ramp up the business and sustain advanced technology market share by continually increased capacity and R&D investments.
2. Maintain mainstream technology market share by expanding business to new customers and market segments with off-the-shelf technologies.
3. Continue to enhance the competitive advantages of TSMC's platforms in mobile, high-performance computing, automotive electronics, and IoT design ecosystems so as 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 pace consistent with Moore's Law.
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, and backend services, all of which deliver more value to customers through optimized solutions.

2.3 Organization

2.3.1 Organization Chart



2.3.2 Major Corporate Functions

Operations

- Operations including all fabs in Taiwan and overseas; product development, manufacturing technology development, and backend technology development, production and service integrations

Research and Development

- Advanced and specialty technology development, exploratory research, as well as design and technology platform development

Asia

- Sales, market development, field technical support and service for customers in Asia including China, Japan, Korea and Taiwan

Europe

- Technical marketing, field technical support and service for customers in Europe

North America

- Sales, market development, field technical solutions and business operations for customers in North America

Business Development

- Business development for electronic products, identification of new applications, development of markets for specialty technology, exploration and development of new markets, and the strengthening of customer relations, as well as management of the Company's brand

Corporate Planning Organization

- Planning for operational resources, as well as for production and demand; the integration of business processes, corporate pricing, market analysis and forecasting

Quality and Reliability

- Ensure of the quality and reliability of the Company's products via resolving reliability issues at new technology development stage, improving and managing of product quality at production stage, providing solutions to resolve customers' quality related issues and providing services for advanced materials and failure analysis

Information Technology

- Integration of the Company's technology and business IT systems; infrastructure development, communication services and assurance of IT security and service quality, enable organizations to apply Big Data and Machine Learning to improve Company's productivity and accelerate R&D delivery

Materials Management and Risk Management

- Procurement, warehousing, import and export, and logistics support; also environmental protection, industrial safety, occupational health, and risk management

Customer Service

- Support and service for customers in Asia, Europe, and North America

Human Resources

- Human resources management and organizational development, as well as proprietary information protection and physical security management

Internal Audit

- Inspection and review of TSMC's internal control system, its adequacy in design and effectiveness in operation with independent risk assessment to ensure compliance with TSMC's policies and procedures as well as with external regulations

Finance and Spokesperson

- Corporate finance, accounting and corporate communications; the head of the organization also serves as company spokesperson

Legal

- Corporate legal affairs including regulatory compliances, commercial transactions, patents and management of other intellectual properties, litigation, etc.

2.4 Board Members

2.4.1 Information Regarding Board Members

As of 02/28/2018

Title/Name	Gender	Nationality or Place of Registration	Date Elected	Term Expires	Date First Elected	Shareholding When Elected		Current Shareholding		Spouse & Minor Shareholding		Selected Education, Past Positions & Current Positions at Non-profit Organizations	Selected Current Positions at TSMC and Other Companies
						Shares	%	Shares	%	Shares	%		
Chairman Morris Chang	Male	U.S.	06/09/2015	06/08/2018	12/10/1986	125,137,914	0.48%	125,137,914	0.48%	135,217	0.00%	Bachelor and Master Degrees in Mechanical Engineering, MIT Ph.D. in Electrical Engineering, Stanford University Former Group Vice-President, Texas Instruments Inc. Former President & COO, General Instrument Corp. Former Chairman, Industrial Technology Research Institute, R.O.C. Former CEO, TSMC Member of National Academy of Engineering, U.S. Life Member Emeritus of MIT Corporation Fellow of the Computer History Museum, U.S. Laureate of the Industrial Technology Research Institute, R.O.C. Honorary Chairman, Taiwan Semiconductor Industry Association (TSIA)	None
Vice Chairman F.C. Tseng	Male	R.O.C.	06/09/2015	06/08/2018	05/13/1997	34,472,675	0.13%	34,472,675	0.13%	132,855	0.00%	Bachelor Degree in Electrical Engineering, National Chengkung University Master Degree in Electrical Engineering, National Chiao Tung University Ph.D. in Electrical Engineering, National Chengkung University Honorary Ph.D., National Chiao Tung University Honorary Ph.D., National Tsing Hua University Former President, Vanguard International Semiconductor Corp. Former President, TSMC Former Deputy CEO, TSMC Former Director, National Culture and Arts Foundation, R.O.C. Chairman, TSMC Education and Culture Foundation	Chairman of: - TSMC China Company Ltd. (a privately held company) - Global UniChip Corp. Vice Chairman, Vanguard International Semiconductor Corp. Independent Director, Chairman of Audit Committee & Compensation Committee member, Acer Inc.
Director National Development Fund, Executive Yuan (Note 1) Representative: Mei-ling Chen	Female	R.O.C.	06/09/2015	06/08/2018	12/10/1986 11/07/2017 (Note 2)	-	-	-	-	-	-	LL.B., National Chengchi University LL.M., National Taiwan University LL.D., National Chengchi University Former Director General, Department of Legal Affairs, Ministry of Justice, R.O.C. Former Chairperson of Legal Affairs Committee & concurrently Chairperson of Petitions and Appeals Committee, Executive Yuan, R.O.C. Former Deputy Secretary-General, Executive Yuan, R.O.C. Former Secretary-General, Tainan City Government, R.O.C. Former Secretary-General, Executive Yuan, R.O.C. Former Associate Professor, Department of Law, Chinese Culture University Minister without Portfolio, Executive Yuan & concurrently Minister, National Development Council, R.O.C.	None
Director Mark Liu (Note 3)	Male	U.S.	06/08/2017	06/08/2018	06/08/2017	12,977,114	0.05%	12,913,114	0.05%	-	-	Bachelor Degree in Electrical Engineering, National Taiwan University Master Degree and Ph.D. in Electrical Engineering & Computer Science, University of California, Berkeley Former President, Worldwide Semiconductor Manufacturing Corp. Former Senior Vice President, Advanced Technology Business, TSMC Former Senior Vice President, Operations, TSMC Former Executive Vice President and Co-Chief Operating Officer, TSMC	President and Co-CEO, TSMC
Director C.C. Wei (Note 3)	Male	R.O.C.	06/08/2017	06/08/2018	06/08/2017	7,179,207	0.03%	7,179,207	0.03%	261	0.00%	Bachelor and Master Degrees in Electrical Engineering, National Chiao Tung University Ph.D. in Electrical Engineering, Yale University Former Senior Vice President, Chartered Semiconductor Manufacturing Ltd. Former Senior Vice President, Mainstream Technology Business, TSMC Former Senior Vice President, Business Development, TSMC Former Executive Vice President and Co-Chief Operating Officer, TSMC Chairman, Taiwan Semiconductor Industry Association (TSIA) Director, TSMC Charity Foundation	President and Co-CEO, TSMC Chairman, TSMC Nanjing Company Ltd. (a privately held company)
Independent Director Sir Peter L. Bonfield	Male	UK	06/09/2015	06/08/2018	05/07/2002	-	-	-	-	-	-	Bachelor Degree in Engineering, Loughborough University Honours Degree in Engineering, Loughborough University Former Chairman and CEO, ICL Plc Former CEO and Chairman of the Executive Committee, British Telecommunications Plc Former Vice President, the British Quality Foundation Former Director, Mentor Graphics Corp., U.S. Former Director, Sony Corp., Japan Former Senior Advisor to G3 Good Governance Group, London Fellow of the Royal Academy of Engineering Chair of Council and Senior Pro-Chancellor, Loughborough University, UK	Chairman of: - NXP Semiconductors N.V., the Netherlands - GlobalLogic Inc., U.S. (a privately held company) Member, The Longreach Group Advisory Board, HK Board Mentor, CMI, UK Senior Advisor to: - Alix Partners, London - Hampton Group, London

(Continued)

Title/Name	Gender	Nationality or Place of Registration	Date Elected	Term Expires	Date First Elected	Shareholding When Elected		Current Shareholding		Spouse & Minor Shareholding		Selected Education, Past Positions & Current Positions at Non-profit Organizations	Selected Current Positions at TSMC and Other Companies
						Shares	%	Shares	%	Shares	%		
Independent Director Stan Shih	Male	R.O.C.	06/09/2015	06/08/2018	04/14/2000	1,480,286	0.01%	1,480,286	0.01%	16,116	0.00%	BSEE & MSEE, National Chiao Tung University Honorary EE Ph.D., National Chiao Tung University Honorary Doctor of Technology, The Hong Kong Polytechnic University Honorary Fellowship, University of Wales, Cardiff, UK Honorary Doctor of International Law, Thunderbird, American Graduate School of International Management, U.S. Co-Founder, Chairman Emeritus, Acer Group Former Chairman & CEO, Acer Group Former Director, Qsda Corp. Former Chairman, National Culture and Arts Foundation, R.O.C. Director, Public Television Service Foundation, R.O.C. Council member of Asian Corporate Governance Associate (ACGA) Chairman of Stan Shih Foundation	Director & Honorary Chairman, Acer Inc. Director of: - Wistron Corp. - Nan Shan Life Insurance Co., Ltd. - Egis Technology Inc. - Digitimes Inc. (a privately held company) - Chinese Television System Inc.
Independent Director Thomas J. Engibous	Male	U.S.	06/09/2015	06/08/2018	06/10/2009	-	-	-	-	-	-	Bachelor and Master Degrees in Electrical Engineering, Purdue University Honorary Doctorate in Engineering, Purdue University Former Executive Vice President and President of the Semiconductor Group, Texas Instruments Inc. Former President and CEO, Texas Instruments Inc. Former Chairman of the Board, Texas Instruments Inc. Former Chairman of the Board of Catalyst Former Chairman of the Board of J. C. Penney Company, Inc. Former Lead Director, J. C. Penney Company, Inc. Member of National Academy of Engineering, U.S. Member of Texas Business Hall of Fame Honorary Director of Catalyst Honorary Trustee, Southwestern Medical Foundation	None
Independent Director Kok-Choo Chen	Female	R.O.C.	06/09/2015	06/08/2018	06/09/2011	-	-	-	-	5,120	0.00%	Inns of Court School of Law, England Barrister-at-law, England Advocate & Solicitor, Singapore Attorney-at-law, California, U.S. Lawyer, Tan, Rajah & Cheah, Singapore, 1969-1970 Lawyer, Sullivan & Cromwell, New York, U.S., 1971-1974 Lawyer, Heller, Erhman, White & McAuliffe, San Francisco, California, U.S., 1974-1975 Partner, Ding & Ding Law Offices, Taiwan, 1975-1988 Partner, Chen & Associates Law Offices, Taiwan, 1988-1992 Vice-President, Echo Publishing, Taiwan, 1992-1995 President, National Culture and Arts Foundation, R.O.C., 1995-1997 Senior Vice-President & General Counsel, TSMC, 1997-2001 Founder & Executive Director of Taipei Story House, 2003-2015 Advisor, Executive Yuan, R.O.C., 2009-2016 Director, National Culture and Arts Foundation, R.O.C., 2011-2016 Chairman, National Performing Arts Center, 2014-January 2017 Lecturer, Nanyang University, Singapore, 1970-1971 Associate Professor, Soochow University, 1981-1998 Chair Professor, National Tsing Hua University, 1999-2002 Professor, National Chengchi University, 2001-2004 Professor, Soochow University, 2001-2008 Founder and Executive Director, Museum207 (located in Taipei) Director, Republic of China Female Cancer Foundation	None
Independent Director Michael R. Splinter	Male	U.S.	06/09/2015	06/08/2018	06/09/2015	-	-	-	-	-	-	Bachelor and Master Degrees in Electrical Engineering, University of Wisconsin Madison Honorary Ph.D in Engineering, University of Wisconsin Madison Former Executive Vice President of Technology and Manufacturing group, Intel Corp. Former Executive Vice President of Sales and Marketing, Intel Corp. Former CEO, Applied Materials, Inc. Former Chairman, Applied Materials, Inc. Former Director, The NASDAQ OMX Group, Inc. Former Director, Silicon Valley Leadership Group Former Director, Semiconductor Equipment and Materials International (SEMI) Director, University of Wisconsin Foundation	Chairman of the Board, NASDAQ, Inc. Director of: - Pica8, Inc. (a privately held company) - Meyer Burger Technology Ltd. General Partner, WISC Partners LP

Remarks:

1. No member of the Board of Directors held TSMC shares by nominee arrangement.
2. No member of the Board of Directors had a spouse or relative within two degrees of consanguinity serving as a manager or director at TSMC.

Note 1: Major Shareholder of TSMC's Director that is an Institutional Shareholder.

Director that is an Institutional Shareholder of TSMC	Top 10 Shareholders
National Development Fund, Executive Yuan	Not Applicable

Major Institutional shareholders of National Development Fund: Not Applicable.

Note 2: Ms. Mei-ling Chen replaced Mr. Johnsee Lee on November 7, 2017 as the representative of National Development Fund.

Note 3: Dr. Mark Liu and Dr. C.C. Wei were elected as TSMC's directors at the Annual Shareholders' Meeting on June 8, 2017.

2.4.2 Remuneration Paid to Directors (Note 1)

Unit: NT\$

Title/Name	Director's Remuneration								Compensation Earned by a Director Who is an Employee of TSMC or of TSMC's Consolidated Entities								Total Compensation (A+B+C+D+E+F+G) as a % of 2017 Net Income (Note 6)		Compensation Paid to Directors from Non-consolidated Affiliates		
	Base Compensation (A)		Severance Pay and Pensions (B) (Note 4)		Compensation to Directors (C)		Allowances (D) (Note 5)		Total Remuneration (A+B+C+D) as a % of 2017 Net Income		Base Compensation, Bonuses, and Allowances (E) (Note 5)		Severance Pay and Pensions (F)(Note 4)		Employees' Profit Sharing Bonus (G)						
	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	From TSMC	From All Consolidated Entities	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)			
Chairman Morris Chang	23,006,760	23,006,760	506,504	506,504	281,884,700	281,884,700	4,084,839	4,084,839	0.0901%	0.0901%	-	-	-	-	-	-	-	-	0.0901%	0.0901%	-
Vice Chairman F.C. Tseng	12,972,120	12,972,120	285,586	285,586	9,600,000	9,600,000	2,647,286	2,647,286	0.0074%	0.0074%	-	-	-	-	-	-	-	-	0.0074%	0.0074%	6,381,650
Director National Development Fund, Executive Yuan (Note 2) Representative: Mei-ling Chen	-	-	-	-	9,600,000	9,600,000	-	-	0.0028%	0.0028%	-	-	-	-	-	-	-	-	0.0028%	0.0028%	-
Director Mark Liu (Note 3)	-	-	-	-	-	-	-	-	-	-	111,393,154	111,393,154	215,251	215,251	99,883,980	-	99,883,980	-	0.0616%	0.0616%	-
Director C.C. Wei (Note 3)	-	-	-	-	-	-	-	-	-	-	111,547,115	111,547,115	215,251	215,251	99,883,980	-	99,883,980	-	0.0617%	0.0617%	-
Independent Director Sir Peter L. Bonfield	-	-	-	-	14,611,560	14,611,560	-	-	0.0043%	0.0043%	-	-	-	-	-	-	-	-	0.0043%	0.0043%	-
Independent Director Stan Shih	-	-	-	-	12,000,000	12,000,000	-	-	0.0035%	0.0035%	-	-	-	-	-	-	-	-	0.0035%	0.0035%	-
Independent Director Thomas J. Engibous	-	-	-	-	14,611,560	14,611,560	-	-	0.0043%	0.0043%	-	-	-	-	-	-	-	-	0.0043%	0.0043%	-
Independent Director Kok-Choo Chen	-	-	-	-	12,000,000	12,000,000	-	-	0.0035%	0.0035%	-	-	-	-	-	-	-	-	0.0035%	0.0035%	-
Independent Director Michael R. Splinter	-	-	-	-	14,611,560	14,611,560	-	-	0.0043%	0.0043%	-	-	-	-	-	-	-	-	0.0043%	0.0043%	-
Total	35,978,880	35,978,880	792,090	792,090	368,919,380	368,919,380	6,732,125	6,732,125	0.1202%	0.1202%	222,940,269	222,940,269	430,502	430,502	199,767,960	-	199,767,960	-	0.2435%	0.2435%	6,381,650

*Other than disclosure in the above table, Directors remunerations earned by providing services (e.g. providing consulting services as a non-employee) to TSMC and all consolidated entities in the 2017 financial statements: None.

Note 1: Remuneration policies, standards/packages, procedures, the linkage to operating performance and future risk exposure: The base compensation for the Chairman, Vice-Chairman and directors are determined in accordance with the procedures set forth in TSMC's Articles of Incorporation. The Articles of Incorporation also provides 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. The distribution of compensation to directors shall be made in accordance with TSMC's "Rules for Distribution of Compensation to Directors".

Note 2: Ms. Mei-ling Chen replaced Mr. Johnsee Lee on November 7, 2017 as the representative of National Development Fund.

Note 3: Dr. Mark Liu and Dr. C.C. Wei were elected as TSMC's directors at the Annual Shareholders' Meeting on June 8, 2017. They also serve as executive officers of TSMC, therefore are not entitled to receive compensation to directors.

Note 4: Pensions funded/paid according to applicable law.

Note 5: The above-mentioned figures include expenses for Company cars and gasoline reimbursement, but do not include compensation paid to Company drivers (totaled NT\$6,640,379).

Note 6: Total remuneration paid to the directors from TSMC and from all consolidated entities in 2016 both were NT\$415,976,199, accounting for 0.1244% of 2016 net income.

2.5 Management Team

2.5.1 Information Regarding Management Team

As of 02/28/2018

Title Name	Gender	Nationality	On-board Date (Note 1)	Shareholding		Spouse & Minor		TSMC Shareholding by Nominee Arrangement (Shares)		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		
				Shares	%	Shares	%	Shares	%			Title	Name	Relation
President and Co-Chief Executive Officer Mark Liu	Male	U.S.	11/15/1993	12,913,114	0.05%	-	-	-	-	Ph.D., Electrical Engineering & Computer Science, University of California, Berkeley, U.S. Executive Vice President and Co-Chief Operating Officer, TSMC Senior Vice President, Operations, TSMC Senior Vice President, Advanced Technology Business, TSMC President, Worldwide Semiconductor Manufacturing Corp.	None	None	None	None
President and Co-Chief Executive Officer C.C. Wei	Male	R.O.C.	02/01/1998	7,179,207	0.03%	261	0.00%	-	-	Ph.D., Electrical Engineering, Yale University, U.S. 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.	Director, TSMC subsidiary	None	None	None
Senior Vice President and Chief Information Officer Information Technology, Materials Management and Risk Management Stephen T. Tso (Note 2)	Male	R.O.C.	12/16/1996	12,222,064	0.05%	-	-	-	-	Ph.D., Materials Science & Engineering, University of California, Berkeley, U.S. President, WaferTech, LLC Senior Vice President, Operations, TSMC General Manager of CVD Products, Applied Material	Director, TSMC subsidiary	None	None	None
Senior Vice President, Chief Financial Officer/Spokesperson Finance Lora Ho	Female	R.O.C.	06/01/1999	4,481,080	0.02%	2,230,268	0.01%	-	-	Master, Business Administration, National Taiwan University, Taiwan Senior Director, Accounting, TSMC Vice President & CFO, TI-Acer Semiconductor Manufacturing Corp.	Director and/or Supervisor, TSMC subsidiaries Director, TSMC affiliates President, TSMC subsidiaries	None	None	None
Senior Vice President Research and Development/Technology Development Wei-Jen Lo	Male	R.O.C.	07/01/2004	1,444,127	0.01%	-	-	-	-	Ph.D., Solid State Physics and Surface Chemistry, University of California, Berkeley, U.S. Vice President, Research and Development, TSMC Vice President, Manufacturing Technology Operations, TSMC Vice President, Advanced Technology Business, TSMC Vice President, Operation II, TSMC Director, Advanced Technology Development and CTM Plant Manager, Intel Corp.	None	None	None	None
Senior Vice President/ Chief Executive Officer of TSMC North America Rick Cassidy	Male	U.S.	11/14/1997	-	-	-	-	-	-	Bachelor, Engineering Technology, United States Military Academy at West Point, U.S. President of TSMC North America Vice President of TSMC North America Account Management	Director, TSMC subsidiary	None	None	None
Senior Vice President Operations/Product Development Y.P. Chin	Male	R.O.C.	01/01/1987	6,922,122	0.03%	2,193,107	0.01%	-	-	Master, Electrical Engineering, National Cheng Kung University, Taiwan Vice President, Product Development Operations, TSMC Vice President, Advanced Technology and Business, TSMC Senior Director, Product Engineering & Services, TSMC	None	None	None	None
Senior Vice President Research and Development/Technology Development Y.J. Mii	Male	R.O.C.	11/14/1994	1,000,419	0.00%	-	-	-	-	Ph.D., Electrical Engineering, University of California, Los Angeles, U.S. Vice President, Technology Development, TSMC TSMC Senior Director, R&D Platform I Division, TSMC	None	Director	Wayne Yeh	Brother in law
Vice President Operations/Affiliate Fabs M.C. Tzeng	Male	R.O.C.	01/01/1987	7,145,595	0.03%	-	-	-	-	Master, Applied Chemistry, Chungyuan University, Taiwan Vice President, Mainstream Technology Business, TSMC Vice President, Operation I, TSMC Senior Director, Fab 2 Operations, TSMC	Director, TSMC subsidiaries Director, TSMC affiliate	Deputy Director	M.J. Tzeng	Siblings
Vice President and Chief Technology Officer Research and Development/Corporate Research Jack Sun	Male	R.O.C.	06/02/1997	3,913,831	0.02%	-	-	-	-	Ph.D., Electrical Engineering, University of Illinois at Urbana-Champaign, U.S. Vice President, Research and Development, TSMC Senior Director, Logic Technology Division, TSMC Senior Manager of R&D, International Business Machines (IBM)	None	None	None	None
Vice President Quality and Reliability N.S. Tsai	Male	R.O.C.	03/01/2000	1,961,180	0.01%	1,103,253	0.00%	-	-	Ph.D., Material Science, Massachusetts Institute of Technology, U.S. Senior Director, Assembly Test Technology & Service, TSMC Vice President, Operations, Vanguard International Semiconductor Corp.	None	None	None	None
Vice President Operations/Mainstream Fabs and Manufacturing Technology J.K. Lin (Note 3)	Male	R.O.C.	01/01/1987	12,518,018	0.05%	1,073,387	0.00%	-	-	Bachelor, Science, National Changhua University of Education, Taiwan Senior Director, Mainstream Fabs, TSMC	Director, TSMC subsidiary Director, TSMC affiliate	None	None	None
Vice President Operations/300mm Fabs J.K. Wang	Male	R.O.C.	02/11/1987	2,553,947	0.01%	160,844	0.00%	-	-	Master, Chemical Engineering, National Cheng Kung University, Taiwan Senior Director, 300mm fabs Operations, TSMC	Director, TSMC subsidiary	None	None	None
Vice President Corporate Planning Organization Irene Sun	Female	R.O.C.	10/01/2003	420,709	0.00%	-	-	-	-	Ph.D., Materials Science and Engineering, Cornell University, U.S. Senior Director, Corporate Planning Organization, TSMC	None	None	None	None

(Continued)

Title Name	Gender	Nationality	On-board Date (Note 1)	Shareholding		Spouse & Minor		TSMC Shareholding by Nominee Arrangement (Shares)		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		
				Shares	%	Shares	%	Shares	%			Title	Name	Relation
Vice President Research and Development/Design and Technology Platform Cliff Hou	Male	R.O.C.	12/15/1997	352,532	0.00%	60,802	0.00%	-	-	Ph.D., Electrical Engineering, Syracuse University, U.S. Senior Director, Design and Technology Platform, TSMC	Director, TSMC subsidiaries Director, TSMC affiliate President, TSMC subsidiaries	None	None	None
Vice President Business Development Been-Jon Woo	Female	R.O.C.	04/30/2009	320,000	0.00%	53,000	0.00%	-	-	Ph.D., Chemistry, University of Southern California, U.S. Director of Business Development, TSMC Vice President of R&D, Grace Semiconductor Manufacturing Corp. Director of Technology Integration, Intel Corp.	None	None	None	None
Vice President and General Counsel Legal Sylvia Fang	Female	R.O.C.	03/20/1995	700,285	0.00%	419,112	0.00%	34,000	0.00%	Master of Comparative Law, School of Law, University of Iowa Attorney-at-law, Taiwan Associate General Counsel, TSMC Senior Associate, Taiwan International Patent and Law Office (TIPL0)	Director and/or Supervisor, TSMC subsidiaries	None	None	None
Vice President Human Resources Connie Ma	Female	R.O.C.	06/01/2014	80,000	0.00%	-	-	-	-	EMBA, International Business Management, National Taiwan University Director of Human Resources, TSMC Senior Vice President of Global Human Resources, Trend Micro Inc.	None	None	None	None
Vice President Research and Development/Technology Development Y.L. Wang	Male	R.O.C.	06/01/1992	218,535	0.00%	1,135,529	0.00%	-	-	Ph.D., Electrical Engineering, National Chiao Tung University, Taiwan Vice President, Fab 14B Operations, TSMC Senior Director, Fab 14B Operations, TSMC	None	None	None	None
Vice President Research and Development/Integrated Interconnect & Packaging Doug Yu	Male	R.O.C.	12/28/1994	225,000	0.00%	-	-	-	-	Ph.D., Materials Engineering, Georgia Institute of Technology, U.S. Senior Director of Integrated Interconnect & Packaging Division in R&D, TSMC	None	None	None	None
Vice President and TSMC Fellow Research and Development/More-than-Moore Technologies Alexander Kalnitsky	Male	U.S.	06/15/2009	-	-	-	-	-	-	Ph.D., Electrical Engineering, Carleton University, Canada Senior Director of More-than-Moore Technologies Division in R&D, TSMC	None	None	None	None
Vice President Business Development Kevin Zhang	Male	U.S.	11/01/2016	-	-	-	-	-	-	Ph.D., Electrical Engineering, Duke University, U.S. Vice President, Design and Technology Platform, TSMC Vice President, Technology and Manufacturing Group, Intel Corp.	None	None	None	None
Vice President and TSMC Fellow Operations/300mm Fabs/Fab 12B T.S. Chang (Note 4)	Male	R.O.C.	02/06/1995	200,781	0.00%	-	-	-	-	Ph.D., Electrical Engineering, National Tsing Hua University Senior Director, Fab 12B Operations, TSMC	None	None	None	None
Vice President Research and Development/Technology Development/ N3 Platform Development Division Michael Wu (Note 4)	Male	R.O.C.	12/09/1996	468,501	0.00%	176,943	0.00%	-	-	Ph.D., Electrical Engineering, University of Wisconsin-Madison, U.S. Senior Director of N3 Platform Development Division in R&D, TSMC	None	None	None	None
Vice President Research and Development/Technology Development/ Pathfinding Min Cao (Note 4)	Male	U.S.	07/29/2002	353,152	0.00%	4,470	0.00%	-	-	Ph.D., Physics, Stanford University, U.S. Senior Director of Pathfinding Division in R&D, TSMC	None	None	None	None

Note 1: On-board date means the official date joining TSMC.

Note 2: Senior Vice President and Chief Information Officer Dr. Stephen T. Tso retired, effective March 1, 2018.

Note 3: Vice President Mr. J.K. Lin also serves as the head of Materials Management and Risk Management Organization, effective March 1, 2018.

Note 4: Dr. T.S. Chang, Dr. Michael Wu and Dr. Min Cao were promoted to Vice President, effective February 13, 2018.

2.5.2 Compensation Paid to President & Co-CEO and Vice Presidents (Note 1)

Unit: NT\$

Title	Name	Salary (A)		Severance Pay and Pensions (B) (Note 5)		Bonuses and Allowances (C) (Note 6)		Employees' Profit Sharing Bonus (D)				Total Compensation (A+B+C+D) as a % of 2017 Net Income (Note 7)		Compensation Received from Non-consolidated Affiliates
		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	
								Cash	Stock (Fair Market Value)	Cash	Stock (Fair Market Value)			
President and Co-Chief Executive Officer	Mark Liu	8,371,830	8,371,830	215,251	215,251	103,021,324	103,021,324	99,883,980	-	99,883,980	-	0.0616%	0.0616%	-
President and Co-Chief Executive Officer	C.C. Wei	8,371,830	8,371,830	215,251	215,251	103,175,285	103,175,285	99,883,980	-	99,883,980	-	0.0617%	0.0617%	-
Senior Vice President, Chief Financial Officer/Spokesperson Finance	Lora Ho	5,384,970	5,384,970	138,456	138,456	46,020,375	46,020,375	44,099,530	-	44,099,530	-	0.0279%	0.0279%	-
Senior Vice President and Chief Information Officer Information Technology, Materials Management and Risk Management	Stephen T. Tso (Note 2)													
Senior Vice President Research and Development/Technology Development	Wei-Jen Lo													
Senior Vice President/ Chief Executive Officer of TSMC North America	Rick Cassidy													
Senior Vice President Operations/Product Development	Y.P. Chin													
Senior Vice President Research and Development/Technology Development	Y.J. Mii													
Vice President Operations/Affiliate Fabs	M.C. Tzeng													
Vice President and Chief Technology Officer Research and Development/Corporate Research	Jack Sun													
Vice President Quality and Reliability	N.S. Tsai													
Vice President Operations/Mainstream Fabs and Manufacturing Technology	J.K. Lin (Note 3)													
Vice President Operations/300mm Fabs	J.K. Wang													
Vice President Corporate Planning Organization	Irene Sun													
Vice President Research and Development/Design and Technology Platform	Cliff Hou	78,328,182	92,249,546	2,013,760	2,365,597	549,707,037	634,894,097	504,799,711	-	504,799,711	-	0.3308%	0.3597%	120,000
Vice President Business Development	Been-Jon Woo													
Vice President and General Counsel Legal	Sylvia Fang													
Vice President Human Resources	Connie Ma													
Vice President Research and Development/Technology Development	Y.L. Wang													
Vice President Research and Development/Integrated Interconnect & Packaging	Doug Yu													
Vice President and TSMC Fellow Research and Development/More-than-Moore Technologies	Alexander Kalnitsky													
Vice President Business Development	Kevin Zhang													
Vice President and TSMC Fellow Operations/300mm Fabs/Fab 12B	T.S. Chang (Note 4)													
Vice President Research and Development/Technology Development/N3 Platform Development Division	Michael Wu (Note 4)													
Vice President Research and Development/Technology Development/Pathfinding	Min Cao (Note 4)													
Total		100,456,812	114,378,176	2,582,718	2,934,555	801,924,021	887,111,081	748,667,201	-	748,667,201	-	0.4820%	0.5109%	120,000

Note 1: Compensation policy, standards/packages, procedures, the linkage to operating performance and future risk exposure: The total compensation paid to the President and Co-Chief Executive Officer, Chief Financial Officer and General Counsel is proposed by Chairman based on their job responsibility, contribution, company performance and projected future risks the Company will face. The total compensation paid to other executive officers is proposed by Chairman and the President and Co-Chief Executive Officer. The proposals are reviewed by the Compensation Committee before submitted to the Board of Directors for final approval.

Note 2: Senior Vice President and Chief Information Officer Dr. Stephen T. Tso retired, effective March 1, 2018.

Note 3: Vice President Mr. J.K. Lin also serves as the head of Materials Management and Risk Management Organization, effective March 1, 2018.

Note 4: Dr. T.S. Chang, Dr. Michael Wu and Dr. Min Cao were promoted to Vice President, effective February 13, 2018. Therefore, their 2017 compensation data is not disclosed.

Note 5: Pensions funded/paid according to applicable law.

Note 6: The above-mentioned figures include the expense for the employees' cash bonuses distributed in May, August, November 2017 and February 2018, Company cars and gasoline reimbursement, but does not include compensation paid to Company drivers (totaled NT\$3,455,753).

Note 7: Total compensation paid to the executive officers in 2016 from TSMC was NT\$1,506,047,477, accounting for 0.451% of 2016 net income. Total compensation paid to the executive officers in 2016 from all consolidated entities was NT\$1,603,740,033, accounting for 0.480% of 2016 net income.

Compensation Paid to President & Co-CEO and Vice Presidents

	2017	
	From TSMC	From All Consolidated Entities and Non-consolidated Affiliates
NT\$0 ~ NT\$2,000,000	Rick Cassidy	None
NT\$2,000,000 ~ 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	Irene Sun, Been-Jon Woo, Sylvia Fang, Connie Ma, Y.L. Wang, Doug Yu	Irene Sun, Been-Jon Woo, Sylvia Fang, Connie Ma, Y.L. Wang, Doug Yu
NT\$50,000,000 ~ NT\$99,999,999	Lora Ho, Y.P. Chin, Y.J. Mii, M.C. Tzeng, Jack Sun, N.S. Tsai, J.K. Lin, J.K. Wang, Cliff Hou, Alexander Kalnitsky, Kevin Zhang	Lora Ho, Rick Cassidy, Y.P. Chin, Y.J. Mii, M.C. Tzeng, Jack Sun, N.S. Tsai, J.K. Lin, J.K. Wang, Cliff Hou, Alexander Kalnitsky, Kevin Zhang
Over NT\$100,000,000	Mark Liu, C.C. Wei, Stephen T. Tso, Wei-Jen Lo	Mark Liu, C.C. Wei, Stephen T. Tso, Wei-Jen Lo
Total	22	22

2.5.3 Employees' Profit Sharing Bonus Paid to Management Team

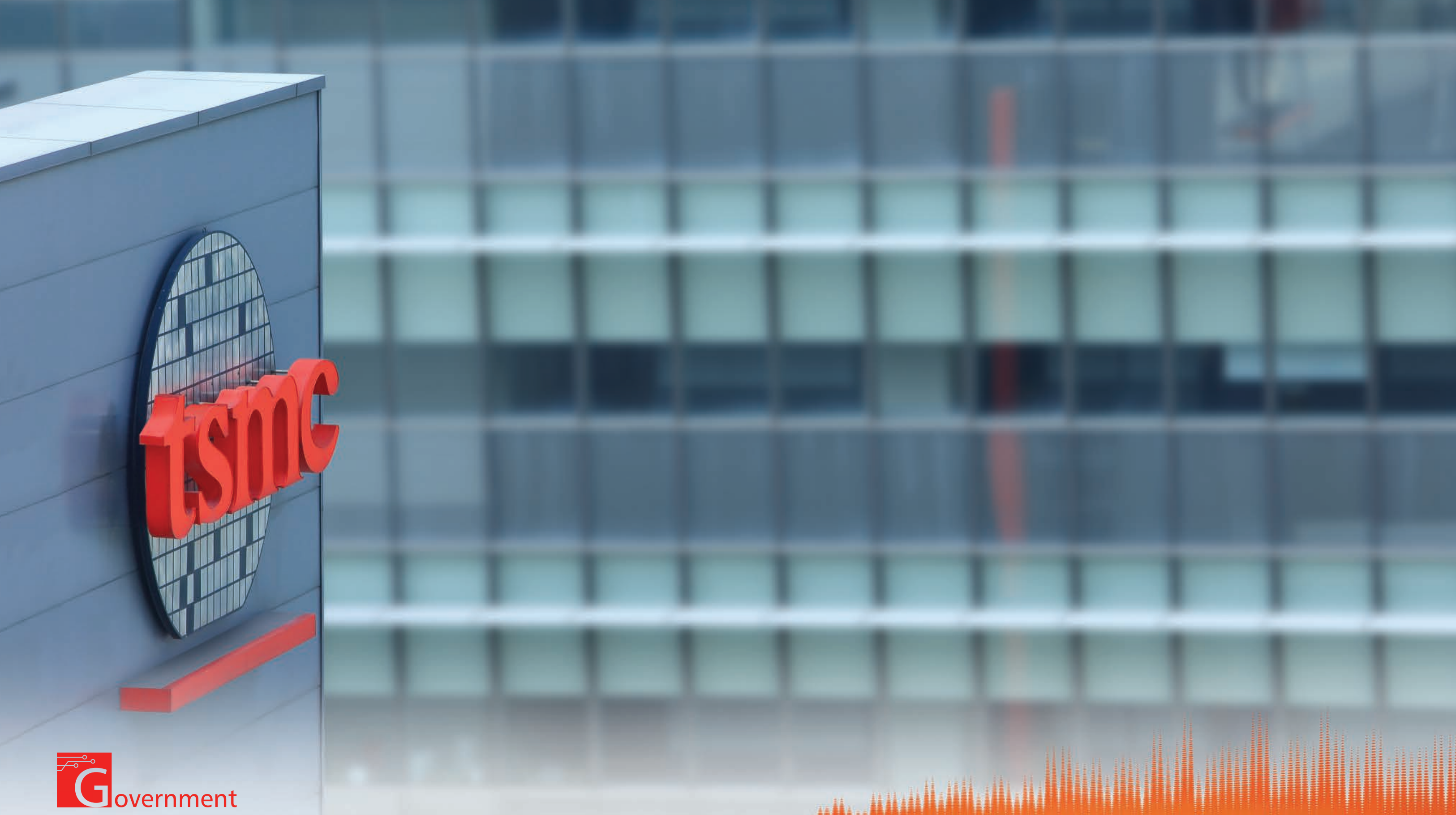
Unit: NT\$

Title	Name	Stock (Fair Market Value)	Cash	Total Employees' Profit Sharing Bonus	Total Employees' Profit Sharing Bonus Paid to Management Team as a % of 2017 Net Income
President and Co-Chief Executive Officer	Mark Liu	-	99,883,980	99,883,980	0.0291%
President and Co-Chief Executive Officer	C.C. Wei	-	99,883,980	99,883,980	0.0291%
Senior Vice President, Chief Financial Officer/Spokesperson Finance	Lora Ho	-	44,099,530	44,099,530	0.0129%
Senior Vice President and Chief Information Officer Information Technology, Materials Management and Risk Management	Stephen T. Tso (Note 1)				
Senior Vice President Research and Development/Technology Development	Wei-Jen Lo				
Senior Vice President/ Chief Executive Officer of TSMC North America	Rick Cassidy				
Senior Vice President Operations/Product Development	Y.P. Chin				
Senior Vice President Research and Development/Technology Development	Y.J. Mii				
Vice President Operations/Affiliate Fabs	M.C. Tzeng				
Vice President and Chief Technology Officer Research and Development/Corporate Research	Jack Sun				
Vice President Quality and Reliability	N.S. Tsai				
Vice President Operations/Mainstream Fabs and Manufacturing Technology	J.K. Lin (Note 2)				
Vice President Operations/300mm Fabs	J.K. Wang				
Vice President Corporate Planning Organization	Irene Sun				
Vice President Research and Development/Design and Technology Platform	Cliff Hou		504,799,711	504,799,711	0.1471%
Vice President Business Development	Been-Jon Woo				
Vice President and General Counsel Legal	Sylvia Fang				
Vice President Human Resources	Connie Ma				
Vice President Research and Development/Technology Development	Y.L. Wang				
Vice President Research and Development/Integrated Interconnect & Packaging	Doug Yu				
Vice President and TSMC Fellow Research and Development/More-than-Moore Technologies	Alexander Kalnitsky				
Vice President Business Development	Kevin Zhang				
Vice President and TSMC Fellow Operations/300mm Fabs/Fab 12B	T.S. Chang (Note 3)				
Vice President Research and Development/Technology Development/N3 Platform Development Division	Michael Wu (Note 3)				
Vice President Research and Development/Technology Development/Pathfinding	Min Cao (Note 3)				
Total		-	748,667,201	748,667,201	0.2182%

Note 1: Senior Vice President and Chief Information Officer Dr. Stephen T. Tso retired, effective March 1, 2018.

Note 2: Vice President Mr. J.K. Lin also serves as the head of Materials Management and Risk Management Organization, effective March 1, 2018.

Note 3: Dr. T.S. Chang, Dr. Michael Wu and Dr. Min Cao were promoted to Vice President, effective February 13, 2018. Therefore, their 2017 compensation data is not disclosed.



 **Government**

TSMC keeps abreast of industry trends as well as changes in domestic and international regulations, and actively participates in industry organizations to communicate with government express its views when appropriate. The Company will continue advocating public policy changes that foster a positive and fair business environment.



Corporate Governance

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, the TSMC Board delegates various responsibilities and authority to two Board Committees, Audit Committee and Compensation Committee. Each Committee has a written charter approved by the Board. Each Committee's chairperson regularly reports to the Board on the activities and actions of the relevant committee. The Audit Committee and Compensation Committee consist solely of independent directors.

2017 Corporate Governance Awards

Organization	Awards
Dow Jones Sustainability Indices (DJSI)	Membership in the Dow Jones Sustainability World Index for the 17 th consecutive year RobecoSAM Sustainability Award - Gold Class
MSCI ESG Indexes	Selected as MSCI ACWI ESG Leaders Index component Selected as MSCI ACWI SRI Index component
FTSE4Good Index	Selected as FTSE4Good Emerging Index component
IR Magazine	Global Top 50 Gold – best investor relations
FORTUNE	Selected as one of The World's Most Admired Companies
Institutional Investor	Selected as one of the Most Honored Company (Greater China)
Forbes	Chairman Dr. Morris Chang was selected as one of the World's 100 Greatest Living Business Minds
Taiwan Institute of Sustainable Energy	Taiwan Corporate Sustainability Awards: Chairman Dr. Morris Chang received TSCA Honorary Award The Most Prestigious Sustainability Awards - Top 10 Domestic Corporates Top 50 Corporate Sustainability Report Awards - Electronics Industry Circular Economy Leadership Awards
Taiwan Stock Exchange	Ranked in top 5% in Corporate Governance Evaluation of Listed Companies for the 3 rd consecutive year

3.2 Board of Directors

Board Structure

TSMC's Board of Directors consists of ten distinguished members with a great breadth of experience as world-class business leaders or professionals. We rely on them for their diverse knowledge, personal perspectives, and solid business judgment. Five of the ten members are independent directors: former British Telecommunications Chief Executive Officer, Sir Peter L. Bonfield; Co-Founder, Chairman Emeritus of the Acer Group, Mr. Stan Shih; former Texas Instruments Inc. Chairman of the Board, Mr. Thomas J. Engibous; former Chairman of National Performing Arts Center and former Advisor of Executive Yuan, R.O.C., Ms. Kok-Choo Chen; and former Chairman of Applied Materials, Inc., Mr. Michael R. Splinter. The number of Independent Directors is 50% of the total number of Directors. Two of the members of the Board Directors are female.

Board Responsibilities

Under the leadership of Chairman Morris Chang, TSMC's Board of Directors takes a serious and forthright approach to its duties and is a dedicated, competent and independent Board.

In the spirit of Chairman Chang's approach to corporate governance, a board of directors' primary duty is to supervise. The Board should supervise the Company's: compliance with relevant laws and regulations, financial transparency, timely disclosure of material information, and maintaining of the highest integrity within the Company. TSMC's Board of Directors strives to perform these responsibilities through the Audit Committee and the Compensation Committee, the hiring of a financial expert consultant for the Audit Committee, and coordination with the Internal Audit department.

The second duty of the Board of Directors is to evaluate the management's performance and to appoint and dismiss officers of the Company when necessary. 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 the important, concrete matters, such as capital appropriations, investment activities, dividends, etc.

The fourth duty of the Board of Directors is to provide guidance to the management team of the Company. Quarterly, TSMC's management reports to the Board on a variety of subjects. The management also reviews the Company's business strategies with the Board and updates TSMC's Board on the progress of those strategies, obtaining Board guidance as appropriate.

Selection 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 and understanding from diverse backgrounds. TSMC envisions its Board to be composed of as many independent directors as possible, and the independence of each independent director candidate is also considered and assessed under relevant laws. Based on the above selection criteria, TSMC composes its Board with world-class candidates who are/were international or local business leaders in the high-tech industry, prestigious academics or other professionals excelling in their chosen field of expertise.

Directors shall be elected pursuant to the candidates nomination system as specified in Article 192-1 of the R.O.C. "Company Law". The tenure of office for Directors shall be three years. The independence of each independent director candidate is also considered and assessed under relevant law such as the Taiwan "Regulations Governing Appointment of Independent Directors and Compliance Matters for Public Companies". 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 are put to the shareholders for voting at the relevant annual shareholders' meeting.

There are no limits on the number of terms that a director may serve. We believe the Company benefits from the contributions of directors who have over their years of dedicated service acquired unique insights into the operations and financial developments of the Company. The Company reviews the appropriateness of each director's continued service to ensure there are new viewpoints available to the Board.

Transition of Responsibilities

In October 2017, Dr. Morris Chang, as TSMC Chairman for the last thirty years, announced his plan to retire from the Company immediately after the Annual Shareholders' Meeting in early June, 2018. All present directors of the board, except himself, have unanimously agreed to be nominated, and if elected, will serve as directors of the board during the next term. They all have agreed to have TSMC under the dual leadership of Dr. Mark Liu and Dr. C.C. Wei, who are TSMC's presidents and Co-CEOs currently. Dr. Liu will be the Chairman of the Board, and Dr. Wei will be the Chief Executive Officer.

Directors' Compensation

According to our Articles of Incorporation, not more than 0.3 percent of our annual profits (defined under local law) after recovering any losses incurred in prior years, if any, 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.

Directors' Professional Qualifications and Independent Analysis

According to the relevant requirements set by Taiwan's Securities and Futures Bureau, the professional qualifications and independence status of the Company's Board members are listed in the table below.

Name	Criteria	Meet the Following Professional Qualification Requirements, Together with at Least Five Years Work Experience			Criteria (Note)										Number of Other Taiwanese Public Companies Concurrently Serving as an Independent Director
		An Instructor or Higher Position in a Department of Commerce, Law, Finance, Accounting, or Other Academic Department Related to the Business Needs of the Company in a Public or Private Junior College, College or University	A Judge, Public Prosecutor, Attorney, Certified Public Accountant, or Other Professional or Technical Specialists Who Has Passed a National Examination and Been Awarded a Certificate in a Profession Necessary for the Business of the Company	Have Work Experience in the Area of Commerce, Law, Finance, or Accounting, or Otherwise Necessary for the Business of the Company	1	2	3	4	5	6	7	8	9	10	
Morris Chang Chairman			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	0
F.C. Tseng Vice Chairman			✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	1
Mei-ling Chen Director	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	0
Mark Liu Director			✓		✓		✓	✓	✓	✓	✓	✓	✓	✓	0
C.C. Wei Director			✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	0
Sir Peter L. Bonfield Independent Director			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	0
Stan Shih Independent Director			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	0
Thomas J. Engibous Independent Director			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	0
Kok-Choo Chen Independent Director	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	0
Michael R. Splinter Independent Director			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	0

Note:

Directors, during the two years before being elected and during the term of office, meet any of the following situations, please tick the appropriate corresponding boxes:

- Not an employee of the company or any of its affiliates;
- Not a director or supervisor of the company or any of its affiliates. The same does not apply, however, in cases where the person is an independent director of the company, its parent company, or any subsidiary, as appointed in accordance with the laws of Taiwan or with the laws of the country of the parent company or subsidiary;
- 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;
- Not a spouse, relative within the second degree of kinship, or lineal relative within the third degree of kinship, of any of the above persons in the preceding three subparagraphs;
- Not a director, supervisor, or employee of a corporate/institutional shareholder that directly holds five percent or more of the total number of issued shares of the company or ranks as of its top five shareholders;
- 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;
- Not a professional individual who, or an owner, partner, director, supervisor, or officer of a sole proprietorship, partnership, company, or institution that, provides commercial, legal, financial, accounting services or consultation to the company or to any affiliate of the company, or a spouse thereof, provided that this restriction does not apply to any member of the compensation committee who exercises powers pursuant to Article 7 of the "Regulations Governing the Establishment and Exercise of Powers of Compensation Committees of Companies whose Stock is Listed on the TWSE or Traded on the GTSM";
- Not having a marital relationship, or a relative within the second degree of kinship to any other director of the company;
- Not been a person of any conditions defined in Article 30 of the Company Law; and
- Not a governmental, juridical person or its representative as defined in Article 27 of the Company Law.

3.2.1 Audit Committee

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

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

- Financial reports;
- Auditing and accounting policies and procedures;
- Internal control systems and including 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;
- IT 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 Audit Committee duties; and
- Assessment of the Committee's performance, etc.

Under R.O.C. law, the membership of Audit Committee shall consist of all independent Directors. TSMC's Audit 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 Committee annually conducts self-evaluation to assess the Committee's performance and identify areas for further attention.

TSMC's Audit 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. The Audit Committee Charter is available on TSMC's corporate website.

3.2.2 Compensation Committee

The Compensation Committee assists the Board in discharging its responsibilities related to TSMC's compensation and benefits policies, plans and programs, and in the evaluation and compensation of TSMC's directors of the Board and executives.

The members of the Compensation Committee are appointed by the Board as required by R.O.C. law. According to TSMC's Compensation Committee Charter, the Committee shall consist of no fewer than three independent directors of the Board. Currently, the Compensation Committee is comprised of all five independent directors; the Chairman of the Board, Dr. Morris Chang, is invited by the Committee to attend all meetings and is excused from the Committee's discussion of his own compensation.

TSMC's Compensation Committee is authorized by its Charter to retain an independent consultant to assist in the evaluation of CEO, or executive officer compensation. The Compensation Committee Charter is available on TSMC's corporate website.

Compensation Committee Members' Professional Qualifications and Independent Analysis

According to the relevant requirements set by Taiwan's Securities and Futures Bureau, the professional qualifications and independence status of the Company's Compensation Committee members are listed in the table below.

Name Title	Meet the Following Professional Qualification Requirements, Together with at Least Five Years Work Experience			Criteria (Note)								Number of Other Taiwanese Public Companies Concurrently Serving as a Compensation Committee Member
	An Instructor or Higher Position in a Department of Commerce, Law, Finance, Accounting, or Other Academic Department Related to the Business Needs of the Company in a Public or Private Junior College, College or University	A Judge, Public Prosecutor, Attorney, Certified Public Accountant, or Other Professional or Technical Specialist Who Has Passed a National Examination and Been Awarded a Certificate in a Profession Necessary for the Business of the Company	Have Work Experience in the Area of Commerce, Law, Finance, or Accounting, or Otherwise Necessary for the Business of the Company	1	2	3	4	5	6	7	8	
Stan Shih Independent Director			✓	✓	✓	✓	✓	✓	✓	✓	✓	-
Sir Peter L. Bonfield Independent Director			✓	✓	✓	✓	✓	✓	✓	✓	✓	-
Thomas J. Engibous Independent Director			✓	✓	✓	✓	✓	✓	✓	✓	✓	-
Kok-Choo Chen Independent Director	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-
Michael R. Splinter Independent Director			✓	✓	✓	✓	✓	✓	✓	✓	✓	-

Note:

Compensation Committee Members, during the two years before being elected or during the term of office, meet any of the following situations, please tick the appropriate corresponding boxes:

- Not an employee of the company or any of its affiliates;
- Not a director or supervisor of the company or any of its affiliates. The same does not apply, however, in cases where the person is an independent director of the company, its parent company, or any subsidiary, as appointed in accordance with the laws of Taiwan or with the laws of the country of the parent company or subsidiary;
- 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;
- Not a spouse, relative within the second degree of kinship, or lineal relative within the third degree of kinship, of any of the above persons in the preceding three subparagraphs;
- Not a director, supervisor, or employee of a corporate/institutional shareholder that directly holds five percent or more of the total number of issued shares of the company or ranks as of its top five shareholders;
- 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;
- Not a professional individual who, or an owner, partner, director, supervisor, or officer of a sole proprietorship, partnership, company, or institution that, provides commercial, legal, financial, accounting services or consultation to the company or to any affiliate of the company, or a spouse thereof;
- Not been a person of any conditions defined in Article 30 of the Company Law.

3.2.3 Director and Committees Members' Attendance

Each Director is expected to attend every Board meeting and the committees meeting on which he or she serves (Note). In 2017, the average Board Meeting attendance rate was 84% and the attendance rate for the Audit Committee and Compensation Committee's Meetings were 88% and 85% respectively.

Board of Directors Meeting Status

Dr. Morris Chang, the Chairman of the Board of Directors, convened four regular meetings and one special meeting in 2017. The directors' attendance status is as follows.

Title	Name	Attendance in Person	By Proxy	Attendance Rate in Person (%)	Notes
Chairman	Morris Chang	5	-	100%	None
Vice Chairman	F.C. Tseng	5	-	100%	None
Director	National Development Fund, Executive Yuan Representative: Mei-ling Chen	3	2	60%	Ms. Mei-ling Chen replaced Mr. Johnsee Lee as the representative of National Development Fund on November 7, 2017.
Director	Mark Liu	2	-	100%	New office assumed (elected on June 8)
Director	C.C. Wei	2	-	100%	New office assumed (elected on June 8)
Independent Director	Sir Peter L. Bonfield	4	1	80%	None
Independent Director	Stan Shih	5	-	100%	None
Independent Director	Thomas J. Engibous	1	4	20%	None
Independent Director	Kok-Choo Chen	5	-	100%	None
Independent Director	Michael R. Splinter	4	1	80%	None

Annotations:

A. (1) Securities and Exchange Act §14-3 resolutions:

Meeting Dates	Resolution	Any Independent Director Had a Dissenting Opinion or Qualified Opinion
2017 1 st Regular Meeting February 13 & 14	approving amendments to TSMC's "Procedures for Acquisition or Disposal of Assets"	None
2017 2 nd Regular Meeting May 8 & 9	approving amendments to TSMC's internal control related policies and procedures	
2017 4 th Regular Meeting November 13 & 14	approving (1) Ms. Shirley Chiang as the new engagement partner of Deloitte & Touche, TSMC's independent auditor, starting from 2018; and (2) the proposed 2018 service fees and out-of-pocket expenses for independent auditor	

(2) There were no other written or otherwise recorded resolutions on which an independent director had a dissenting opinion or qualified opinion in 2017.

B. Recusals of Directors due to conflicts of interests in 2017: Directors recused themselves from the discussion and voting of their compensation resolution.

C. Measures taken to strengthen the functionality of the Board:

- Five of the ten Directors are Independent Directors. The number of Independent Directors is 50% of the total number of Directors. The Chairman and Vice Chairman of the Board of Directors are not executive officers of the Company.
- TSMC Board delegates various responsibilities and authority to two Board Committees, Audit Committee and Compensation Committee. Both the two Committees consist solely of the five Independent Directors. Each Committees chairperson regularly reports to the Board on the activities and actions of the relevant committee.

Note: Mr. Thomas J. Engibous' attendance rate in 2017 for TSMC's Board and Committee meetings was affected by a personal medical condition that prevented him from traveling long distances. Mr. Engibous participated in all meetings held via video- or tele-conference. He received updates on important matters considered by the Board at the meetings he was unable to attend, which allowed him to continue providing his insight to the Company throughout the year. We anticipate Mr. Engibous will resume regular participation in Board and Committee meetings upon his recovery.

Audit Committee Meeting Status

Sir Peter L. Bonfield, Chairman of the Audit Committee, convened four regular meetings and one special meeting in 2017. The Committee members and consultant's attendance status is shown in the following table. In addition to these meetings, the Committee members and Financial Expert Consultant participated in three telephone conferences to discuss the Company's Annual Report to be filed with the Taiwan and U.S. authorities and investor conference materials with management.

Title	Name	Attendance in Person	By Proxy	Attendance Rate in Person (%)	Telephone Conferences	Attendance Rate of Telephone Conferences (%)	Notes
Chair	Sir Peter L. Bonfield	5	-	100%	3	100%	None
Member	Stan Shih	5	-	100%	3	100%	None
Member	Thomas J. Engibous	2	3	40%	3	100%	None
Member	Kok-Choo Chen	5	-	100%	3	100%	None
Member	Michael R. Splinter	5	-	100%	3	100%	None
Financial Expert Consultant	J.C. Lobbezoo	5	-	100%	3	100%	None

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

Meeting Dates	Resolution	Any Independent Director Had a Dissenting Opinion or Qualified Opinion
2017 1 st Regular Meeting February 13	<ul style="list-style-type: none"> approving the 2016 annual financial statements approving the related party sale of TSMC's existing equipment to TSMC Nanjing Company Limited approving the amendments to TSMC's "Procedures for Acquisition or Disposal of Assets" approving 2016 Statement of Internal Control System 	None
2017 2 nd Regular Meeting May 8	<ul style="list-style-type: none"> approving the proposed additional 2017 service fees to Deloitte & Touche for VisEra Technologies Company Ltd. approving amendments to TSMC's internal control related policies and procedures 	
2017 3 rd Regular Meeting August 7	<ul style="list-style-type: none"> approving the 2017 second quarter financial statements 	
2017 4 th Regular Meeting November 13	<ul style="list-style-type: none"> approving Ms. Shirley Chiang as the new engagement partner for TSMC starting from 2018 and the proposed 2018 service fees and out-of-pocket expenses for Deloitte & Touche 	
2018 1 st Regular Meeting February 12	<ul style="list-style-type: none"> approving the 2017 annual financial statements approving 2017 Statement of Internal Control System 	

(2) There was no other resolutions which was not approved by the Audit Committee but was approved by two thirds or more of all directors in 2017.
B. There were no recusals of independent directors due to conflicts of interests in 2017.
C. Descriptions of the communications between the independent directors, the internal auditors, and the independent auditors in 2017 (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 Audit Committee periodically, and presented the findings of all audit reports in the quarterly meetings of the Audit Committee. The head of Internal Audit will immediately report to the members of the Audit Committee any material matters. During 2017, the head of Internal Audit did not report any such material matters. The communication channel between the Audit 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 Audit Committee any material matters that they have discovered. During 2017, the Company's independent auditors did not report any irregularity. The communication channel between the Audit 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.

Meeting Dates	Communications between the Independent Directors and the Internal Auditors	Communications between the Independent Directors and the Independent Auditors
2017 1 st Regular Meeting February 13	<ul style="list-style-type: none"> reviewing the Internal Auditor's report (closed door) reviewing report on SOX 404 self-testing results for the year 2016 reviewing and approving 2016 Statement of Internal Control System 	<ul style="list-style-type: none"> reviewing any audit problems or difficulties and management's response in connection with 2016 annual financial statements (closed door) reviewing regulatory developments reviewing external auditor relationship (i.e. qualification, performance and independence)
2017 2 nd Regular Meeting May 8	<ul style="list-style-type: none"> reviewing the Internal Auditor's report (closed door) reviewing and approving amendments to TSMC's internal control related policies and procedures 	<ul style="list-style-type: none"> reviewing any review problems or difficulties and management's response in connection with 2017 first quarter financial statements (closed door) reviewing regulatory developments reviewing the result of CPA evaluation questionnaire
2017 3 rd Regular Meeting August 7	<ul style="list-style-type: none"> reviewing the Internal Auditor's report (closed door) 	<ul style="list-style-type: none"> reviewing any review problems or difficulties and management's response in connection with 2017 second quarter financial statements (closed door) reviewing regulatory developments
2017 4 th Regular Meeting November 13	<ul style="list-style-type: none"> reviewing the Internal Auditor's report (closed door) reviewing and approving the 2018 internal audit plan 	<ul style="list-style-type: none"> reviewing any review problems or difficulties and management's response in connection with 2017 third quarter financial statements (closed door) reviewing regulatory developments reviewing Deloitte's report on its cyber incident reviewing report on new GAAP (IFRS 9 & IFRS 15) adoption starting from January 1, 2018
2018 1 st Regular Meeting February 12	<ul style="list-style-type: none"> reviewing the Internal Auditor's report (closed door) reviewing report on SOX 404 self-testing results for the year 2017 reviewing and approving 2017 Statement of Internal Control System 	<ul style="list-style-type: none"> reviewing any audit problems or difficulties and management's response in connection with 2017 annual financial statements (closed door) reviewing regulatory developments reviewing external auditor relationship (i.e. qualification, performance and independence) reviewing report on IFRS 16 adoption status

Result: all of above matters were reviewed and approved by the Audit Committee whereupon independent directors raised no objection.

Compensation Committee Meeting Status

Mr. Stan Shih, Chairman of the Compensation Committee, convened four regular meetings in 2017. The Committee members' attendance status is as follows:

Title	Name	Attendance in Person	By Proxy	Attendance Rate in Person (%)	Notes
Chair	Stan Shih	4	-	100%	None
Member	Sir Peter L. Bonfield	4	-	100%	None
Member	Thomas J. Engibous	1	3	25%	None
Member	Kok-Choo Chen	4	-	100%	None
Member	Michael R. Splinter	4	-	100%	None

Annotations:
- There was no recommendation of the Compensation Committee which was not adopted or was modified by the Board of Directors in 2017.
- There were no written or otherwise recorded resolutions on which a member of the Compensation Committee had a dissenting opinion or qualified opinion.

3.3 Major Decisions of Shareholders' Meeting and Board Meetings

3.3.1 Major Resolutions of Shareholders' Meeting and Implementation Status

TSMC held 2017 Annual Shareholders' Meeting in Hsinchu, Taiwan on June 8, 2017. At the meeting, shareholders present in person or by proxy approved the following resolutions:

- The 2016 Business Report and Financial Statements.
Consolidated revenue totaled NT\$947.94 billion and net income was NT\$334.25 billion, with diluted earnings per share of NT\$12.89;
- The distribution of a NT\$7 cash dividend per common share;
- The revisions to the Articles of Incorporation;
- The revisions to the Procedures for Acquisition or Disposal of Assets; and
- Election of two additional Directors.

Implementation Status

All the resolutions of the Shareholders' Meeting have been fully implemented in accordance with the resolutions. The two newly elected directors are Dr. Mark Liu and Dr. C.C. Wei.

3.3.2 Major Resolutions of Board Meetings

During 2017 and as of the date of this Annual Report, major resolutions approved at Board meetings are summarized below:

- Board Meeting of February 13 & 14, 2017:
 - approving 2016 business report and financial statements;
 - approving distribution of 2016 profits, and cash dividends, employee cash bonus and employee profit sharing;
 - approving capital appropriation of approximately US\$1,927.58 million for purposes including: 1. Upgrading advanced technology capacity and expanding advanced packaging capacity; 2. Conversion of logic capacity to specialty technology; 3. Upgrading and building specialty technology capacity; 4. Second quarter 2017 R&D capital investments and sustaining capital expenditures;
 - approving the capital injection of not more than US\$2 billion to TSMC Global Ltd., a wholly-owned BVI subsidiary, for the purpose of reducing foreign exchange hedging costs;
 - determining the number of directors to be increased by two to ten and approving the election of two additional directors at TSMC's 2017 Annual Shareholders' Meeting, and authorizing the Chairman to nominate Dr. Mark Liu and Dr. C.C. Wei as candidates for directors to stand for election at TSMC's 2017 Annual Shareholders' Meeting; and
 - convening the 2017 Annual Shareholders' Meeting.
- Special Board Meeting of April 26, 2017:
 - approving the nomination of Dr. Mark Liu and Dr. C.C. Wei as candidates to stand for election as two additional directors at TSMC's Shareholders' Meeting on June 8, 2017.
- Regular Board Meeting of May 8 & 9, 2017:
 - approving capital appropriations of approximately US\$1,269.1 million for purposes including: 1. Upgrading and expanding advanced technology capacity; 2. Conversion of certain logic capacity to specialty technology; 3. Third quarter 2017 R&D capital investments and sustaining capital expenditures; and
 - approving the establishment of TSMC Charity Foundation with donation of NT\$30,000,000 as its initial capital.

(4) Regular Board Meeting of August 7 & 8, 2017:

- approving capital appropriations of approximately US\$3,153.6 million for purposes including: 1. Construction of fab facilities for US\$528 million; 2. Other purposes for US\$2,625.6 million including: Expanding and upgrading advanced technology equipment; Expanding advanced packaging technology capacity; Upgrading specialty technology capacity; Conversion of logic capacity to specialty technology; Fourth quarter 2017 R&D capital investments and sustaining capital expenditures.

(5) Regular Board Meeting of November 13 & 14, 2017:

- approving capital appropriations of approximately US\$4,284.5 million for purposes including: 1. US\$1,667.5 million for construction of fab facilities; 2. US\$2,617 million for other purposes including: Expanding and upgrading advanced technology capacity; Expanding advanced packaging technology capacity; Expanding specialty technology capacity; Conversion of logic capacity to specialty technology; First quarter 2018 R&D capital investments and sustaining capital expenditures; and
- approving the capital injection of not more than US\$2 billion to TSMC Global Ltd., a wholly-owned BVI subsidiary, for the purpose of reducing foreign exchange hedging costs.

(6) Board Meeting of February 12 & 13, 2018:

- approving 2017 business report and financial statements;
- approving distribution of 2017 profits, and cash dividends, employee cash bonus and employee profit sharing;
- approving capital appropriations of approximately US\$2,834 million for purposes including: 1. Installation, upgrading and expanding advanced technology capacity; 2. Conversion of logic capacity to specialty technology; 3. Second quarter 2018 R&D capital investments and sustaining capital expenditures;
- convening the 2018 Annual Shareholders' Meeting, at which shareholders will hold an election for TSMC's nine-member Board of Directors, including five independent directors;
- approving the promotions of Dr. T.S. Chang, Dr. Michael Wu, and Dr. Min Cao as Vice Presidents; and
- in gratitude to Dr. Morris Chang, conferring on Dr. Chang the title of "Founder" beginning June 5, 2018.

3.3.3 Major Issues of Record or Written Statements Made by Any Director Dissenting to Important Resolutions Passed by the Board of Directors during 2017 and as of the Date of this Annual Report: None.

3.4 Taiwan Corporate Governance Implementation 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	TSMC has always followed excellent corporate governance practices, provided the utmost in operational transparency and safeguarded shareholders' equity. Although the Company does not have a formal code of practice for corporate governance, however TSMC has always been highly regarded as the industry leader in implementing comprehensive corporate governance practices. In addition, the Company also has a world-class Board of Directors. The Company believes that corporate governance is based on integrity, professional management and implementation. TSMC has been proving its excellent corporate governance in its operating performance and continued winning of domestic and international awards on best corporate governance company.	Same as explanation
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 Corporate Communication Division, the SEC Compliance Department, Legal Department, etc., to handle shareholder suggestions, concerns, disputes or litigation matters.	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 Company established a diversification policy for the composition of its Board of Directors and has it been implemented accordingly?	V		(1) The members of TSMC Board of Directors are nominated via a rigorous selection process. It not only considers diverse backgrounds, professional competence and experience, but also attaches great importance to his/her personal reputation on ethics and leadership. Presently, the Company's Board of Directors consists of ten members who possess world-class managerial and/or professional experiences. We rely on each directors' knowledge, personal insight and business judgment. Two female directors currently sit on the Board of Director, and half of our Board consists of independent directors.	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 Committee (founded in 2002): consists of all five independent directors; Compensation Committee (founded in 2003): consists of all five independent directors; CSR Committee (founded in 2011): is formed by the Company's management team and reports to the Board of Directors.	
(3) Has the Company established methodology for evaluating the performance of its Board of Directors, on an annual basis?	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. Also, TSMC's audit committee performs self-evaluation and discusses future issues of concern by questionnaire on annual basis.	
(4) Does the Company regularly evaluate its external auditors' independence?	V		(4) The Audit Committee annually evaluates the independence of external auditors and reports the same to the Board of Directors.	
4. Does the Company established a full- (or part-) time corporate governance unit or personnel to be in charge of corporate governance affairs (including but not limited to furnish information required for business execution by directors, handle matters relating to board meetings and shareholders' meetings according to laws, handle corporate registration and amendment registration, record minutes of board meetings and shareholders meetings, etc.)?	V		The Chairman appointed the current General Counsel as the Company's Board secretariat. TSMC's Corporate & Compliance Legal Division, which directly reports to the General Counsel, is in charge of assisting in related affairs, including furnishing information required for business decisions by Directors, handling matters relating to Board meetings, Committees meetings and Shareholders' meetings and recording minutes of relevant meetings, etc. The SEC Compliance Department is responsible for handling corporate registration and amendment registration. All application documents needs to be reviewed by Legal and approved by the General Counsel.	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 Corporate Communication Division, SEC Compliance department, Human Resources department, Customer Service department and Procurement department 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 corporate social responsibilities and any other issues. For details, please refer to "7. Corporate Social Responsibility" on page 118-135 of this Annual Report and "Materiality Analysis and Stakeholder Communication" of TSMC's CSR Report.	None
6. Has the Company appointed a professional registrar for its Shareholders' Meetings?	V		We have appointed China Trust as our 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 http://www.tsmc.com/download/english/e03_governance/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 Corporate Communication Division, the 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 spokespersons as required by relevant regulations. TSMC webcasts live investor conferences.	

(Continued)

Assessment Item	Implementation Status			Non-implementation and Its Reason(s)
	Yes	No	Explanation	
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 "5.5 Human Capital" on page 85-89 of this Annual Report. (2) For investor relations, supplier relations and rights of stakeholders, please refer to "7. Corporate Social Responsibility" on page 118-135 of this Annual Report. (3) For Directors' training records, please refer to "Continuing Education/Training of Directors" on page 44-45 of this Annual Report. (4) For Risk Management Policies and Risk Evaluation, please refer to "6.3 Risk Management" on page 103-115 of this Annual Report. (5) For Customer Relations Policies, please refer to "5.4 Customer Trust" on page 83-85 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 in 2016 and 2017. The implementation status regarding below three non-scoring items: (1) Establishment a formal code of practice for corporate governance: as the explanation of Assessment Item 1 of this table, although the Company does not have a formal code of practice for corporate governance, however TSMC has always been highly regarded as the industry leader in implementing comprehensive corporate governance practices. In addition, the Company also has a world-class Board of Directors. The Company believes that corporate governance is based on integrity, professional management and implementation. TSMC has been proving its excellent corporate governance in its operating performance and continued winning of domestic and international awards on best corporate governance company. (2) Training of Directors: TSMC's Board of Directors consists of distinguished members with a great breadth of experience as world-class business leaders or professionals. The Company continually arranges relevant training for Directors during Board meetings, and Directors also participate relevant course as needed. For details, please refer to the below table "Continuing Education/Training of Directors in 2017". (3) Voluntary disclosure of Directors' compensation on an individualized basis: From 2016, TSMC discloses compensation paid to Directors, President & Co-CEO and Chief Financial Officer on an individualized basis in its Annual Reports. For details, please refer to "2.4.2 Remuneration Paid to Directors" and "2.5.2 Compensation Paid to President & Co-CEO and Vice Presidents" of 2016 and this Annual Report.				

Continuing Education/Training of Directors in 2017

The major training methods of Directors includes:

- At quarter Board meetings, TSMC management regularly presents updates on the Company's business, regulatory developments and other information to Directors;
- The Company arranges speeches regarding politics, economics, and regulatory compliance, etc.;
- At quarter Audit Committee meetings, regular regulatory update reports are provided by TSMC's General Counsel and by the Company's independent auditors; and
- Directors participate relevant 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
Morris Chang (Note)	04/20	Taiwan Economic Daily News Forum	Speech: Growth and Innovation-the Constant Value	20 mins.
	07/28	Chinese National Association of Industry and Commerce, Taiwan	Speech: Growth and Innovation	40 mins.
	08/30	Monte Jade Science & Technology Association of Taiwan	Speech: Growth and Innovation	40 mins.
F.C. Tseng	08/03	Taiwan Corporate Governance Association	Information Security Management of Technology Development	3 hours
	08/09		Information Security, Personal Information Protection and Liability of Directors and Supervisors of AoT (Analytics of Things) Era	3 hours
	11/08		2018-2019 IFRS Major Changes	3 hours
Sir Peter L. Bonfield (Note)	09/18	The Deal	Corporate Governance UK Conference Speech: Corporate Governance	2 hours
Stan Shih	08/09	Taiwan Corporate Governance Association	Information Security, Personal Information Protection and Liability of Directors and Supervisors of AoT (Analytics of Things) Era	3 hours
	11/08		2018-2019 IFRS Major Changes	3 hours
	09/21	Taiwan Insurance Anti-Fraud Institute	Anti-Money Laundering and Counter Terrorist Financing Workshop	1 hour
Michael R. Splinter	06/21 06/22	JP Morgan	Director Training Summit	2 days
Morris Chang F.C. Tseng Sir Peter L. Bonfield Stan Shih Thomas J. Engibous Kok-Choo Chen Michael R. Splinter	02/14	TSMC	"Recent Political & Economic Environment in Taiwan" by Dr. Tain-Jy, Chen, Minister of National Development Council	40 mins.
Morris Chang F.C. Tseng Johnsee Lee Mark Liu C.C. Wei Sir Peter L. Bonfield Stan Shih Kok-Choo Chen Michael R. Splinter	08/08	TSMC	"The New East Asia and Cross-strait Situation" by Dr. Chi SU, Chairman, Taipei Forum	1 hour

Note: Selected speeches on corporate governance and related topics.

Continuing Education/Training of Management in 2017

Name/Title	Date	Host by	Training	Duration
Lora Ho Senior Vice President and Chief Financial Officer	08/03	Taiwan Corporate Governance Association	Information Security Management of Technology Development	3 hours
Sylvia Fang Vice President and General Counsel	08/29 08/30	IP Academy Singapore	6 th Global Forum on Intellectual Property: Ideas to Assets Speech: Keeping Your Valuable Secrets Secret! Legislative and Other Practical Solutions for Protecting Trade Secrets	2 days
	11/02 11/03	China Law Society Intellectual Property Law Association China Anti-Infringement and Anti-Counterfeit Innovation Strategic Alliance Taiwan Association for Trade Secrets Protection (TTSP)	2017 Cross-Strait Trade Secrets Protection Forum	2 days
Cliff Hou Vice President, Design and Technology Platform	08/03	Taiwan Corporate Governance Association	Information Security Management of Technology Development	3 hours
	11/10	Taiwan Computer Audit Association	Case Study on Trade Secrets and Intellectual Property Protection of Enterprises	3 hours
Jessica Chou Senior Director, Accounting Division	12/11	Taiwan Accounting Research and Development Foundation	The Annual Professional Development Training for Principal Accounting Officer	6 hours
	12/12			6 hours
John Liang Director, Internal Audit	10/16	Taiwan Computer Audit Association	Case Sharing of Procurement Auditing (2)	6 hours
	11/29	Taiwan Accounting Research and Development Foundation	Legal Risk to Internal Auditors in the Trending of Business Globalization (including the latest Development of Inside Trading)	6 hours

In addition, various training programs and speech presentations were also provided by TSMC's Legal Organization for Management and the relevant divisions, such as:

- Ethics code and anti-bribery/corruption
- Classified Information and Intellectual Property Protection
- Anti-trust Regulatory Compliance
- Export Control Compliance and Practice

3.5 Code of Ethics and Business Conduct

Ethics at TSMC

Code of Conduct: Integrity is the most important core value of TSMC's culture. TSMC is committed to acting ethically in all aspects of our business; constantly and vigilantly promoting integrity, honesty, fairness, accuracy, and transparency in all that we say and do. At the heart of our corporate governance culture is TSMC's Code of Ethics and Business Conduct (the "Ethics Code") that applies to TSMC and its subsidiaries. The 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.

Major Ethics Code Obligations

- Do not advance personal interests at the expense of or in conflict with the Company;
- Refrain from corruption, unfair competition, fraud, collusion, and waste or abuse of corporate assets;
- Avoid any efforts improperly to influence the decisions of anyone, including government officials, agencies, and courts, as well as our 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 and our customers; and
- Abide by both the letter and spirit of all applicable laws, rules and regulations.

Intellectual Property Protection: In order to build and sustain an environment of innovation, technology leadership, and sustainable profitable growth, the Ethics Code requires that we promote business relationships founded upon an unwavering respect for the intellectual property rights, proprietary information and trade secrets of TSMC, our customers, and others.

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 Committee to ensure our ethics compliance program is independently reviewed against corporate best practices.

Ethics Code Implementation

High Standard Ethical Culture: Our ethics program is implemented in four ways by all of our employees, officers and Board members. First, TSMC's management sets the "tone from the top" by acting in accordance with the Ethics Code so that they may 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, we encourage 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 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 Vice President that oversees the Ombudsman system, or to the Chairman of the Company's Audit 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 departments and subsidiaries of TSMC are required to conduct Control Self-Assessment (CSA) tests annually to review employees' awareness of 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 such proactive disclosure requirement, employees with specific job grades or job responsibilities must annually declare any relationships that may constitute a conflict of interest, which is then reviewed by executive management and reported to the Audit 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 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.

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, and internal news articles. In addition, we provide an introductory training course on the Ethics Code which is available to all employees online, as well as advanced courses delving into more specific compliance topics such as anti-corruption, PIP, export control, insider trading and anti-harassment.

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 (such as 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 suppliers to declare in writing that they will not engage in any fraud or any unethical conduct when dealing with us, our officers, or employees. In addition, TSMC is a full member of the Responsible Business Alliance ("RBA", formerly the Electronic Industry Citizenship Coalition ("EICC")), dedicated to electronics supply chain sustainability. 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 to prevent any unethical conduct and detect any sign of Ethics Code violations. We exchange views on appropriate business conduct and TSMC's ethical standards with our customers as part of customer audit programs.

Reporting Channels and Whistleblower Protection

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. First of all, our Audit Committee approved and we have implemented the "Complaint Policy and Procedures for Certain Accounting and Legal Matters" and "Procedures for Ombudsman System" that allow employees or any whistleblowers with relevant evidence to report any financial, legal, or ethical irregularities anonymously through either the Ombudsman or directly to the Audit Committee. TSMC maintains additional internal reporting channels for our employees. To foster an open culture of ethics compliance, we encourage our employees and the third parties we do business with to report any suspected wrongdoing by TSMC or by any parties with whom we do business.

TSMC treats any complaint and the investigation thereof in a confidential and sensitive manner, and strictly prohibits any form of retaliation against any individual who in good faith reports or helps with the investigation of any complaint.

Due to the open reporting channels, TSMC received reports on various issues from employees and external parties such as our customers and suppliers from time to time. Below is a summary of the Number of Reported Incidents. We did not receive any report related to finance or accounting matters in 2017.

	FY 2015	FY 2016	FY 2017
Incidents reported to the Ombudsman System	60	80	79 (Note 1)
Incidents reported to the Audit Committee Whistleblower System	-	1	2
Incidents reported to the "Irregular Business Conduct Reporting"	16	35	32 (Note 2)
Total incidents investigated as founded	-	2	4 (Note 3)
Sexual Harassment Investigation Committee	7	5	7
Total incidents investigated as founded	7	5	3 (Note 4)

Note 1: Among the 79 cases, no incidents related to ethics matters.

Note 2: Among the 32 cases, 18 cases related to ethics matters.

Note 3: After investigation of the 4 cases, 9 employees confirmed their violation of the Ethics Code. All 9 employees were severely disciplined by the Company and 3 were dismissed.

Note 4: After the investigation by TSMC's Sexual Harassment Investigation Committee, 3 employees involved in these 3 cases received severe discipline from the Company.

Ethics Code Violation Disciplinary Action

We do not tolerate any violation of the Ethics Code and treat every possible violation incident seriously. Any violator of the Ethics Code (or relevant regulations) will be severely disciplined to the full extent of our policies and the law, up to and including immediate dismissal, termination of business relationship, and judicial prosecution as appropriate.

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

Assessment Item	Implementation Status			Non-implementation and Its Reason(s)
	Yes	No	Explanation	
<p>1. Establishment of Corporate Conduct and Ethics Policy and Implementation Measures</p> <p>(1) Does the company have bylaws and publicly available documents addressing its corporate conduct and ethics policy and measures, and the commitment regarding implementation of such policy from the Board of Directors and the management team?</p> <p>(2) Does the company establish relevant policies which are duly enforced to prevent unethical conduct and provide implementation procedures, guidelines, consequence of violation and complaint procedures in such policies?</p> <p>(3) Does the company establish appropriate compliance measures for the business activities prescribed in paragraph 2, article 7 of the Ethical Corporate Management Best Practice Principles for TWSE/GTSM Listed Companies and any other such activities associated with high risk of unethical conduct?</p>	V		<p>(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 Corporate Social Responsibility Report.</p> <p>(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, and internal news articles. 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.</p> <p>We do not tolerate any violation of the Ethics Code and treat every possible violation incident seriously. Any violator of the Ethics Code (or relevant regulations) will be severely punished to the full extent of our policies and the law, including immediate dismissal in accordance with TSMC Employee Recognition, Disciplinary and Ombudsman Procedure, termination of business relationship, and judicial prosecution as appropriate.</p> <p>(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: Anti-corruption, Anti-harassment/ discrimination, Anti-trust (unfair competition), Environment, Export Control, Financial Reporting/Internal Controls, Insider Trading, Intellectual Property, Proprietary Information Protection ("PIP"), 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, 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.</p>	None

(Continued)

Assessment Item	Implementation Status			Non-implementation and Its Reason(s)
	Yes	No	Explanation	
<p>2. Ethic Management Practice</p> <p>(1) Does the company assess the ethics records of whom it has business relationship with and include business conduct and ethics related clauses in the business contracts?</p> <p>(2) Does the company set up a unit which is dedicated to or tasked with promoting the company's ethical standards and reports directly to the Board of Directors with periodical updates on relevant matters?</p> <p>(3) Does the company establish policies to prevent conflict of interests, provide appropriate communication and complaint channels and implement such policies properly?</p> <p>(4) To implement relevant policies on ethical conducts, does the company establish effective accounting and internal control systems that are audited by internal auditors or CPA periodically?</p> <p>(5) Does the company provide internal and external ethical conduct training programs on a regular basis?</p>	V		<p>(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, as for our suppliers, we require all of them to declare in writing that they will not engage in any fraud or any unethical conduct when dealing with us or our officers and employees. In addition to periodic audit, we provide training and communicate our ethical culture to our suppliers through live seminars 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.</p> <p>(2) TSMC's Board of Directors strives to perform the responsibilities of supervising the corporate conduct and ethics compliance practice through the Audit Committee and the Compensation Committee, the hiring of a financial expert consultant for the Audit 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, with other divisions, the Company's ethical standards, and the General Counsel reports quarterly to the Board on the implementation status. In addition, the responsible corporate Vice President who oversees the Ombudsmen system and Internal Auditors update the Board ethical standards 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.</p> <p>(3) TSMC requires newly hired employees to declare any conflict of interest situation as appropriate. In addition, all employees must disclose any matters that have, or may have, the appearance of undermining the Ethics Code (such as any actual or potential conflict of interest). Furthermore, key employees and senior officers must periodically declare their compliance status with the Ethics Code according to relevant procedures.</p> <p>(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.</p> <p>(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. As for our suppliers, we communicate our ethical culture to our business partners through live seminars to ensure their fully understanding of our commit to ethical conduct.</p>	None
<p>3. Implementation of Complaint Procedures</p> <p>(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?</p> <p>(2) Does the company establish standard operation procedures for investigating the complaints received and ensuring such complaints are handled in a confidential manner?</p> <p>(3) Does the company adopt proper measures to prevent a complainant from retaliation for his/her filing a complaint?</p>	V		<p>(1) TSMC's Audit Committee approved and TSMC has implemented the "Complaint Policy and Procedures for Certain Accounting and Legal Matters" and "Procedures for Ombudsman System" that allow employees or any whistleblowers with relevant evidence to report any financial, legal, or ethical irregularities anonymously through either the Ombudsman or directly to the Audit Committee. TSMC also requires all employees to stay vigilant and whistle-blow any noncompliance by anyone to their supervisors, the function head of Human Resources, the responsible corporate Vice President that oversees the Ombudsmen system, or to the Chairman of the Company's Audit Committee directly.</p> <p>(2) TSMC treats any complaint and the investigation thereof in a confidential and sensitive manner, as is clearly stated in our bylaws.</p> <p>(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.</p>	None

(Continued)

Assessment Item	Implementation Status			Non-implementation and Its Reason(s)
	Yes	No	Explanation	
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		Our internal website provides guidelines and informative articles on ethics and honorable business conduct (in both Chinese and English) for employees' easy access. In addition, TSMC discloses relevant policies and information in its Annual Report (which is also available at the MOPS) and CSR Report (available at: http://www.tsmc.com)	None
5. If the company has established corporate governance policies based on TSE Corporate Conduct and Ethics Best Practice Principles, 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 46-50 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 46-50 of this Annual Report.				

3.6 Regulatory Compliance

TSMC's robust compliance efforts are comprised of legislation monitoring, developing and implementation of effective compliance policies and programs, training, and maintaining an open reporting environment.

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 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

Under the framework of the Ethics Code, TSMC has established a regulatory compliance program that includes policies, guidelines and procedures in different compliance areas, including: Anti-corruption, Anti-harassment/discrimination, Employment Regulations, Anti-trust (unfair competition), Environment, Export Control, Financial Reporting, Internal Controls, Insider Trading, Intellectual Property, Proprietary Information Protection ("PIP"), 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 relevant policies, guidelines and procedures, and make ethical decisions in every circumstance.

Compliance Awareness Training

Training is a major component of our regulatory 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.

Highlights of our training include:

- Awareness promotion emails to employees, posters at our facilities, and news articles, compliance guidelines, tips and FAQs which our employees can access through our intranet;
- Live seminars focusing on specific topics such as Anti-Corruption (this is also the highlight of our compliance training activities for 2017), PIP, Intellectual Property, Personal Data Protection, Conflict Minerals Compliance and Export Control Management. Training is made mandatory for those employees whose jobs are especially relevant to a particular topic to ensure sufficient awareness of relevant laws and internal policies;

- 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 Anti-trust, Anti-harassment, Insider Trading, Export Control Management, PIP, and Personal Data Protection among others;
- External training, in Taiwan and abroad, for TSMC's legal team to receive current developments of new laws and regulations, 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.

Major Accomplishments

In 2017, TSMC achieved several major accomplishments in regulatory compliance:

- Public Promotion Activities: In addition to fulfilling our obligations on regulatory compliance matters, TSMC exercised its civic duties as a responsible corporate citizen by advising the local government on law and policy reform, including urging the Government to amend certain outdated laws and regulations, which we believe were inconsistent with global practice, to improve Taiwan's investment environment and economic development. In 2017, TSMC continues to advocate the importance of trade secret protection and attended relevant events. In addition, TSMC advised the government agencies on the amendment of several laws like the Company Act and environmental protection-related laws.
- Internal Training: Throughout 2017, TSMC offered a wide range of training courses on 40 different compliance topics (28 of which were delivered via live seminar). These courses were all developed and conducted by internal and external compliance experts and legal professionals.
- Continuous Awareness Enhancement of Ethics Code and Anti-Corruption: Any corruption or other violation of the Ethics Code could not only impose long-term negative influence on our competitiveness, but could also seriously damage our strong industry reputation. To enhance employees' and external partners' awareness of the Ethics Code and anti-corruption rules, the Legal organization kept the two topics remained as our awareness enhancement focus in 2017 and a series of promotion activities through multiple channels were held, including: (1) 20 face-to-face training sessions to approximately 7,000 employees from various internal organizations to promote awareness of and ensure compliance with TSMC's business conduct standards when interacting with third parties; (2) on-line training program to approximately 29,000 employees, (including those of our subsidiaries); (3) 6 live seminars to 888 suppliers headquartered in Taiwan or with a operation site in Taiwan. Looking ahead into 2018, it is our objective to continuously provide compliance training on these and other compliance topics to our employees, and the training scope will be expanded to cover on-site operational workers in fabs.
- 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. In 2017, TSMC has made continued progress to ensure a conflict-free supply chain, and our conflict-free minerals compliance program has also been highly ranked by several independent third party rating agencies.
- Export Compliance: TSMC's export management system (EMS) and policy has been in place for a number of years, and is continuously maintained to ensure compliance with all applicable regulations covering the export of information, technologies, products, materials and equipment. Our EMS was certified in September 2012 by the Bureau of Foreign Trade, the Taiwan regulator, as a qualified ICP (Internal Compliance Program) exporter. 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 on the export control requirements incurred by technology transfers, in 2017 we provided around 25 face-to-face training sessions to approximately 200 manager-level employees in R&D and other relevant functions.
- Other Major Compliance Topics: For other importance compliance topics such as insider trading, anti-harassment, and PIP, in 2017 we not only provided and updated relevant on-line courses and resources, but enhanced employees' awareness by promotion emails and through posters at facilities. Employees were mandatorily required to complete on-line courses for both anti-harassment and PIP.

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

Date: February 13, 2018

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 2017:

1. TSMC's board of directors and management are responsible for establishing, implementing, and maintaining an adequate internal control system. Our internal control is a process designed to provide reasonable assurance over the effectiveness and efficiency of our operations (including profitability, performance and safeguarding of assets), reliability, timeliness, transparency 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.
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, 2017, 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 of reporting, and compliance with applicable rulings, laws and regulations.
6. This Statement is an integral part of TSMC's annual report for the year 2017 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 13, 2018, 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



Morris Chang,
Chairman



Mark Liu,
President and Co-Chief Executive Officer



C.C. Wei,
President and Co-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 and Business Operation

3.8.1 Resignation or Dismissal of Chairman, President, and Heads of Accounting, Finance, Internal Audit and R&D during 2017 and as of the Date of this Annual Report: None.

3.8.2 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)	4	31
US Certified Public Accountants (US CPA)	4	16
The Chartered Institute of Management Accountants (CIMA)	-	1
Certified Internal Auditor (CIA)	14	7
Chartered Financial Analyst (CFA)	-	2
Certified Management Accountant (CMA)	-	1
Financial Risk Manager (FRM)	-	2
Certification in Control Self-Assessment (CCSA)	3	-
Certification in Risk Management Assurance (CRMA)	5	-
Certified Information Systems Auditor (CISA)	5	-
Chief Fraud Examiner (CFE)	2	-
BS7799/ISO 27001 Lead Auditor	2	-

3.9 Information Regarding TSMC's Independent Auditor

3.9.1 Audit Fees

The Audit 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 Committee to approve any increase not exceeding 10% of the approved fees.

Unit: NT\$ thousands

Accounting Firm	Name of CPA	Audit Fee	Non-audit Fee					CPA's Audit Period	Remark
			System Design	Company Registration	Human Resource	Others (Note 1)	Subtotal		
Deloitte & Touche	Yih-Hsin Kao, Yu-Feng Huang, and others	55,647	-	-	-	81	81	01/01/2017 - 12/31/2017	Note 2

Note 1: Fees mainly related to accounting research tool.

Note 2: Article 10.5.1 of Regulation Governing Information to be published in Annual Report of Public Companies was not applicable to TSMC.

3.9.2 CPA's information

(1) Former CPAs

Date of Change	Approved by BOD on November 14, 2017		
Reasons and Explanation of Changes	In compliance with relevant regulatory requirements on rotation, the current engagement partner Yih-Hsin Kao will be replaced by Mei-Yen Chiang starting from 2018. The co-signing partner will remain to be Yu-Feng Huang.		
State whether the Appointment is Terminated or Rejected by the Consignor or CPAs	Client	CPA	Consignor
	Status		
	Appointment terminated automatically	Not available	Not available
	Appointment rejected (discontinued)	Not available	Not available
The Opinions other than Unmodified Opinion Issued in the Last Two Years and the Reasons for the Said Opinions (Note)	None		
Is there any disagreement in opinion with the issuer	Yes		Accounting principle or practice
			Disclosure of financial statements
			Auditing scope or procedures
			Others
	No	V	
Explanation			
Supplementary Disclosure (Disclosures Specified in Article 10.6.1.4~7 of the Standards)	None		

Note: Starting in 2016, the new auditing standard of the Republic of China requires "An Unqualified Opinion" be replaced by "An Unmodified Opinion".

(2) Successor CPAs

Accounting Firm	Deloitte & Touche
CPA	Mei-Yen Chiang and Yu-Feng Huang
Date of Engagement	Approved by BOD on November 14, 2017
Prior to the Formal Engagement, Any Inquiry or Consultation on the Accounting Treatment or Accounting Principles for Specific Transactions, and the Type of Audit Opinion that Might be Rendered on the Financial Report	None
Written Opinions from the Successor CPAs that are Different from the Former CPA's Opinions	None

(3) The Reply of Former CPAs on Article 10.6.1 and Article 10.6.2.3 of the Standards: None.

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

The Audit Committee regularly monitors the independence of TSMC's external auditor by conducting the below evaluations and reports the same to the Board of Directors:

1. The auditor's independence declaration
2. The Audit 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 of the external auditor based on the results of the auditor survey

3.10 Material Information Management Procedure

TSMC has established relevant procedures for managing and disclosing material information. The responsible departments regularly remind all officers and employees about the need to comply with these procedures and other applicable regulations when they become aware of any potential material information and the possible need to publicly disclose such information. To ensure that our employees, managers and board directors are aware of and comply with these relevant regulations, TSMC has also established our "Insider Trading Policy". To reduce the risk of insider trading, on-line training programs and live seminars are conducted periodically. In addition, employees can familiarize themselves with relevant internal policies and training articles by easily accessing TSMC's Legal Organization intranet website.



3

Four Application-Specific Solutions

- Address each market segment's specific product requirements
- Continue to push technology forward to accelerate your innovation

Mobile	High Performance Computing	Automotive	IoT
<ul style="list-style-type: none">• Performance and power optimization• Area scaling	<ul style="list-style-type: none">• Sustainable performance• Memory bandwidth• Reliability	<ul style="list-style-type: none">• Reliability• Functional safety• Standard compliance	<ul style="list-style-type: none">• Ultra-low power

Open Innovation Platform®

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Four Application-Specific Solutions

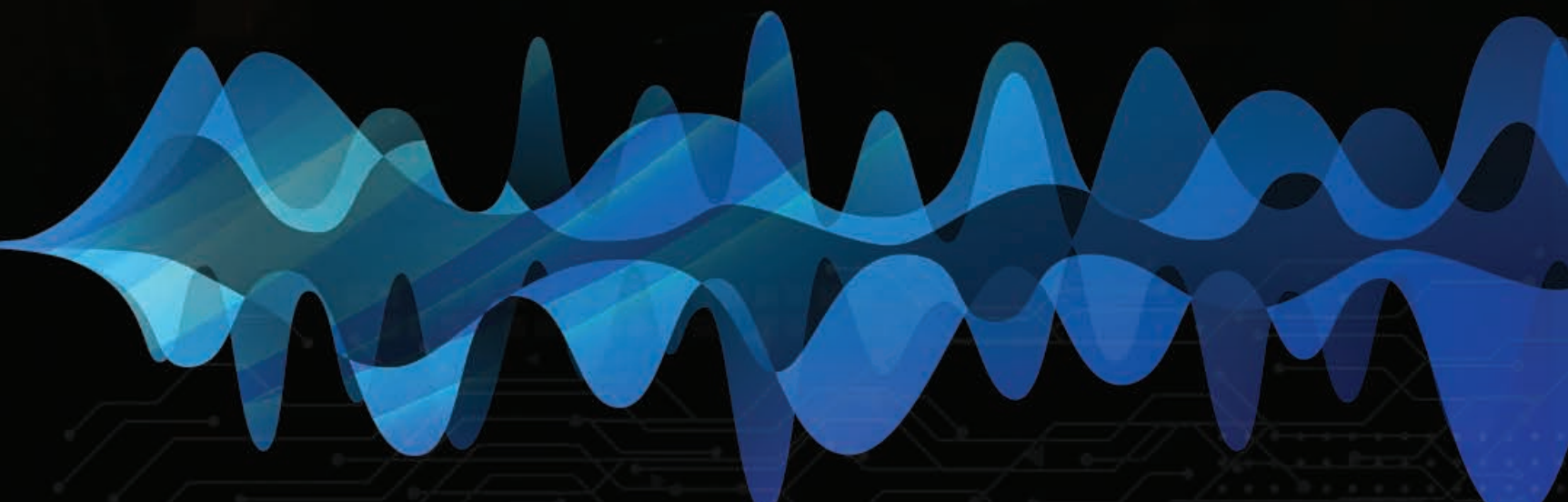
- Address each market segment's specific product requirements
- Continue to push technology forward to accelerate your innovation

Mobile	High Performance Computing	Automotive	IoT
<ul style="list-style-type: none">• Performance and power optimization• Area scaling	<ul style="list-style-type: none">• Sustainable performance• Memory bandwidth• Reliability	<ul style="list-style-type: none">• Reliability• Functional safety• Standard compliance	<ul style="list-style-type: none">• Ultra-low power



Customers

TSMC strives to serve as a trusted long-term partner that customers rely upon for success. As the world's largest semiconductor foundry, TSMC manufactured 9,920 different products using 258 distinct technologies for 465 different customers in 2017.



Capital and Shares

4.1 Capital and Shares

4.1.1 Capitalization

Unit: Share/NT\$ As of 02/28/2018

Month/ Year	Issue Price (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 & Approval Document No.
07/2015	10	28,050,000,000	280,500,000,000	25,930,380,458	259,303,804,580	Exercise of Employee Stock Options: NT\$7,180,220	None	07/13/2015 Zhu Shang Tzu No.1040020526

4.1.2 Capital and Shares

Unit: Share As of 02/28/2018

Type of Stock	Authorized Share Capital				Unissued Shares	Total
	Issued Shares			Total		
	Listed	Non-listed	Total			
Common Stock	25,930,380,458	-	25,930,380,458	2,119,619,542	28,050,000,000	

Shelf Registration: None.

4.1.3 Composition of Shareholders

Common Share As of 07/02/2017 (last record date)

Type of Shareholders	Government Agencies	Financial Institutions	Other Juridical Persons	Foreign Institutions and Natural Persons	Domestic Natural Persons	Total
Number of Shareholders	7	151	1,149	4,231	314,889	320,427
Shareholding	1,653,710,189	599,818,046	1,058,236,528	20,658,779,209	1,959,836,486	25,930,380,458
Holding Percentage (%)	6.38%	2.31%	4.08%	79.67%	7.56%	100.00%

Distribution Profile of Share Ownership

Common Share As of 07/02/2017 (last record date)

Shareholder Ownership (Unit: Share)	Number of Shareholders	Ownership	Ownership (%)
1-999	146,197	32,498,982	0.13%
1,000-5,000	123,140	255,563,253	0.99%
5,001-10,000	22,569	161,289,971	0.62%
10,001-15,000	8,690	105,600,468	0.41%
15,001-20,000	4,023	70,667,777	0.27%
20,001-30,000	4,533	110,598,899	0.43%
30,001-40,000	2,133	73,710,156	0.28%
40,001-50,000	1,377	61,895,110	0.24%
50,001-100,000	2,757	192,609,685	0.74%
100,001-200,000	1,559	218,927,430	0.84%
200,001-400,000	1,037	292,221,179	1.13%
400,001-600,000	486	236,470,478	0.91%
600,001-800,000	280	193,341,382	0.75%
800,001-1,000,000	189	170,302,518	0.66%
Over 1,000,001	1,457	23,754,683,170	91.60%
Total	320,427	25,930,380,458	100.00%

Preferred Share: None.

4.1.4 Major Shareholders

Common Share As of 07/02/2017 (last record date)

Shareholders	Total Shares Owned	Ownership (%)
ADR-Taiwan Semiconductor Manufacturing Company, Ltd.	5,341,120,243	20.60%
National Development Fund, Executive Yuan	1,653,709,980	6.38%
Government of Singapore	654,494,172	2.52%
JPMorgan Chase Bank N.A. Taipei Branch in Custody for EuroPacific Growth Fund	430,430,649	1.66%
Norges Bank	317,463,515	1.22%
JPMorgan Chase Bank N.A. Taipei Branch in Custody for Oppenheimer Developing Markets Funds, managed by Oppenheimer Funds, Inc.	287,172,429	1.11%
JPMorgan Chase Bank N.A. Taipei Branch in Custody for Vanguard Total International Stock Index Fund, a series of Vanguard Star Funds	285,329,063	1.10%
JPMorgan Chase Bank N.A. Taipei Branch in Custody for Saudi Arabian Monetary Agency	252,148,426	0.97%
Vanguard Emerging Markets Stock Index Fund, a series of Vanguard International Equity Index Funds	237,443,845	0.92%
New Perspective Fund	221,552,994	0.85%

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

Unit: Share

Title Name	2017		01/01/2018 ~ 02/28/2018	
	Net Change in Shareholding	Net Change in Shares Pledged	Net Change in Shareholding	Net Change in Shares Pledged
Chairman Morris Chang	-	-	-	-
Vice Chairman F.C. Tseng	-	-	-	-
Director National Development Fund, Executive Yuan Representative: Mei-ling Chen	-	-	-	-
Independent Director Sir Peter L. Bonfield	-	-	-	-
Independent Director Stan Shih	-	-	-	-
Independent Director Thomas J. Engibous	-	-	-	-
Independent Director Kok-Choo Chen	-	-	-	-
Independent Director Michael R. Splinter	-	-	-	-
Director President and Co-Chief Executive Officer Mark Liu	(64,000)	-	-	-
Director President and Co-Chief Executive Officer C.C. Wei	-	-	-	-
Senior Vice President and Chief Information Officer Stephen T. Tso	(645,000)	-	(30,000)	-
Senior Vice President, Chief Financial Officer and Spokesperson Lora Ho	-	-	-	-
Senior Vice President Wei-Jen Lo	(24,000)	-	-	-
Senior Vice President of TSMC and Chief Executive Officer of TSMC North America Rick Cassidy	-	-	-	-
Senior Vice President Y.P. Chin	(69,000)	-	(1,000)	-
Senior Vice President Y.J. Mii	-	-	-	-
Vice President M.C. Tzeng	(269,000)	-	-	-
Vice President and Chief Technology Officer Jack Sun	(90,000)	-	(3,000)	-
Vice President N.S. Tsai	-	-	(27,000)	-
Vice President J.K. Lin	20,000	-	-	-
Vice President J.K. Wang	-	-	-	-

(Continued)

Title Name	2017		01/01/2018 ~ 02/28/2018	
	Net Change in Shareholding	Net Change in Shares Pledged	Net Change in Shareholding	Net Change in Shares Pledged
Vice President Irene Sun	-	-	-	-
Vice President Cliff Hou	-	-	-	-
Vice President Been-Jon Woo	-	-	-	-
Vice President and General Counsel Sylvia Fang	-	-	-	-
Vice President Connie Ma	-	-	-	-
Vice President Y.L. Wang	-	-	-	-
Vice President Doug Yu	-	-	-	-
Vice President and TSMC Fellow Alexander Kalnitsky	-	-	-	-
Vice President Kevin Zhang	-	-	-	-
Vice President and TSMC Fellow T.S. Chang (Note)	-	-	-	-
Vice President Michael Wu (Note)	-	-	-	-
Vice President Min Cao (Note)	-	-	-	-

Note: Dr. T.S. Chang, Dr. Michael Wu and Dr. Min Cao were promoted to Vice President, effective February 13, 2018. Their shareholdings were disclosed starting from that date.

4.1.6 Stock Trade with Related Party: None.

4.1.7 Stock Pledge with Related Party: None.

4.1.8 Related Party Relationship among Our 10 Largest Shareholders

Common Share As of 07/02/2017 (last record date)

Name	Current Shareholding		Spouse and Minor Shareholding		TSMC Shareholding by Nominee Arrangement		Name and Relationship between TSMC's Shareholders	
	Shares	%	Shares	%	Shares	%	Name	Relationship
ADR-Taiwan Semiconductor Manufacturing Company, Ltd.	5,341,120,243	20.60%	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: Mei-ling Chen	-	-	-	-	-	-	None	None
Government of Singapore	654,494,172	2.52%	N/A	N/A	N/A	N/A	None	None
JPMorgan Chase Bank N.A. Taipei Branch in Custody for EuroPacific Growth Fund	430,430,649	1.66%	N/A	N/A	N/A	N/A	None	None
Norges Bank	317,463,515	1.22%	N/A	N/A	N/A	N/A	None	None
JPMorgan Chase Bank N.A. Taipei Branch in Custody for Oppenheimer Developing Markets Funds, managed by Oppenheimer Funds, Inc.	287,172,429	1.11%	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	285,329,063	1.10%	N/A	N/A	N/A	N/A	None	None
JPMorgan Chase Bank N.A. Taipei Branch in Custody for Saudi Arabian Monetary Agency	252,148,426	0.97%	N/A	N/A	N/A	N/A	None	None
Vanguard Emerging Markets Stock Index Fund, a series of Vanguard International Equity Index Funds	237,443,845	0.92%	N/A	N/A	N/A	N/A	None	None
New Perspective Fund	221,552,994	0.85%	N/A	N/A	N/A	N/A	None	None

4.1.9 Long-term Investment Ownership

As of 12/31/2017

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.	9,284	100%	-	-	9,284	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 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 Solar Europe GmbH (Note 2)	800	100%	-	-	800	100%
VisEra Technologies Company Ltd.	253,120,000	86.94%	-	-	253,120,000	86.94%
Systems on Silicon Manufacturing Co. Pte. Ltd.	313,603	38.79%	-	-	313,603	38.79%
Vanguard International Semiconductor Corp.	464,223,493	28.32%	275,877,722	16.83% (Note 3)	740,101,215	45.16%
Xintec Inc.	111,281,925	40.92%	-	-	111,281,925	40.92%
Global UniChip Corporation	46,687,859	34.84%	17,000	0.01%	46,704,859	34.85%
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%

Note 1: Not applicable. These firms do not issue shares. TSMC's investment is measured as a percentage of ownership.

Note 2: The dissolution procedures of TSMC Solar Europe GmbH are expected to be completed by the end of June 2018.

Note 3: TSMC's Director, National Development Fund of Executive Yuan, holds 16.72% while other Directors and Management hold 0.11%.

4.1.10 Share Information

TSMC's earnings per share in 2017 increase 2.7% from 2016 to NT\$13.23 per share. The following table details TSMC's market price, net worth, earnings, and dividends per common share, as well as other data regarding return on investment.

Market Price, Net Worth, Earnings, and Dividends Per Common Share

Unit: NT\$, except for weighted average shares and return on investment ratios

Item	2016	2017	01/01/2018 ~ 02/28/2018
Market Price Per Share (Note 1)			
Highest Market Price	193.00	244.00	266.00
Lowest Market Price	131.50	179.50	232.50
Average Market Price	166.36	210.09	246.03
Net Worth Per Share			
Before Distribution	53.58	58.70	-
After Distribution	46.58	50.70 (Note 5)	-
Earnings Per Share			
Weighted Average Shares (thousand shares)	25,930,380	25,930,380	-
Diluted Earnings Per Share	12.89	13.23	-
Dividends Per Share			
Cash Dividends	7.00	8.00 (Note 5)	-
Accumulated Undistributed Dividend	-	-	-
Return on Investment			
Price/Earnings Ratio (Note 2)	12.91	15.88	-
Price/Dividend Ratio (Note 3)	23.77	26.26 (Note 5)	-
Cash Dividend Yield (Note 4)	4.2%	3.8% (Note 5)	-

Note 1: Referred to TWSE website

Note 2: Price/Earnings Ratio = Average Market Price/ Diluted Earnings Per Share

Note 3: Price/Dividend Ratio = Average Market Price/Cash Dividends Per Share

Note 4: Cash Dividend Yield = Cash Dividends Per Share/Average Market Price

Note 5: Pending shareholders' approval

4.1.11 Dividend Policy and Distribution of Earnings

TSMC does not pay dividends when there are no profits or retained earnings. TSMC has distributed cash dividends every year to its shareholders since 2004. TSMC intends to maintain a stable and sustainable dividend policy, and will consider raising dividends when free cash flow is sufficient to cover the previous level of dividend payment and any debt repayment. On February 13, 2018, TSMC's Board of Directors adopted a proposal recommending distribution of a cash dividend of NT\$8 per share as shown in the table below. The proposal will be implemented according to the relevant regulations, upon the approval of shareholders at the Annual Shareholders' Meeting on June 5, 2018.

Proposal to Distribute 2017 Earnings

Unit: NT\$

Cash Dividends Paid to Common Shareholders (NT\$8 per share)	207,443,043,664
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4.1.12 Compensation to Directors and Profit Sharing Bonus 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 bonus.

As resolved by TSMC's Board of Directors on February 13, 2018, a profit sharing bonus to employees was expensed based on a certain percentage of 2017 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.

2017 Directors' Compensation and Employees' Profit Sharing Bonus

	Board Resolution (02/13/2018)	
	Amount (NT\$)	
Directors' Compensation (Cash)	368,919,380	
Employee's Profit Sharing Bonus (Cash)	23,019,082,263	
Total	23,388,001,643	

Note: NT\$23,019,082,263 employees' cash bonus has already been distributed following each quarter of 2017. The above employees' profit sharing bonus will be distributed in July, 2018.

2016 Directors' Compensation and Employees' Profit Sharing Bonus

	Board Resolution (02/14/2017)	Actual Result (Note)
	Amount (NT\$)	Amount (NT\$)
Directors' Compensation (Cash)	376,432,200	376,432,200
Employees' Profit Sharing Bonus (Cash)	22,418,339,262	22,418,339,262
Total	22,794,771,462	22,794,771,462

Note: The above Directors' Compensation and Employees' Profit Sharing Bonus were expensed under the Company's 2016 statement of comprehensive income and the same amounts were approved by the Board of Directors at its meeting on February 14, 2017.

4.1.13 Impact to 2018 Business Performance and EPS Resulting from Stock Dividend Distribution: Not applicable.

4.1.14 Buyback of Common Stock: None.

4.2 Issuance of Corporate Bonds

4.2.1 Corporate Bonds

NTD Corporate Bonds

As of 02/28/2018

Issuance	Domestic Unsecured Bond (100-1)	Domestic Unsecured Bond (100-2)	Domestic Unsecured Bond (101-1)	Domestic Unsecured Bond (101-2)	Domestic Unsecured Bond (101-3)	Domestic Unsecured Bond (101-4)	Domestic Unsecured Bond (102-1)	Domestic Unsecured Bond (102-2)	Domestic Unsecured Bond (102-3)	Domestic Unsecured Bond (102-4)
Issuing Date	09/28/2011	01/11/2012	08/02/2012	09/26/2012	10/09/2012	01/04/2013	02/06/2013	07/16/2013	08/09/2013	09/25/2013
Denomination	NT\$10,000,000	NT\$10,000,000	NT\$10,000,000	NT\$10,000,000	NT\$10,000,000	NT\$10,000,000	NT\$10,000,000	NT\$10,000,000	NT\$10,000,000	NT\$10,000,000
Offering Price	Par	Par	Par	Par	Par	Par	Par	Par	Par	Par
Total Amount	NT\$18,000,000,000	NT\$17,000,000,000	NT\$18,900,000,000	NT\$21,700,000,000	NT\$4,400,000,000	NT\$23,600,000,000	NT\$21,400,000,000	NT\$13,700,000,000	NT\$12,500,000,000	NT\$15,000,000,000
Coupon	Tranche A: 1.40% p.a. Tranche B: 1.63% p.a.	Tranche A: 1.29% p.a. Tranche B: 1.46% p.a.	Tranche A: 1.28% p.a. Tranche B: 1.40% p.a.	Tranche A: 1.28% p.a. Tranche B: 1.39% p.a.	1.53% p.a.	Tranche A: 1.23% p.a. Tranche B: 1.35% p.a. Tranche C: 1.49% p.a.	Tranche A: 1.23% p.a. Tranche B: 1.38% p.a. Tranche C: 1.50% p.a.	Tranche A: 1.50% p.a. Tranche B: 1.70% p.a.	Tranche A: 1.34% p.a. Tranche B: 1.52% p.a.	Tranche A: 1.35% p.a. Tranche B: 1.45% p.a. Tranche C: 1.60% p.a. Tranche D: 1.85% p.a. Tranche E: 2.05% p.a. Tranche F: 2.10% p.a.
Tenor and Maturity Date	Tranche A: 5 years Maturity: 09/28/2016 Tranche B: 7 years Maturity: 09/28/2018	Tranche A: 5 years Maturity: 01/11/2017 Tranche B: 7 years Maturity: 01/11/2019	Tranche A: 5 years Maturity: 08/02/2017 Tranche B: 7 years Maturity: 08/02/2019	Tranche A: 5 years Maturity: 09/26/2017 Tranche B: 7 years Maturity: 09/26/2019	Tenor: 10 years Maturity: 10/09/2022	Tranche A: 5 years Maturity: 01/04/2018 Tranche B: 7 years Maturity: 01/04/2020 Tranche C: 10 years Maturity: 01/04/2023	Tranche A: 5 years Maturity: 02/06/2018 Tranche B: 7 years Maturity: 02/06/2020 Tranche C: 10 years Maturity: 02/06/2023	Tranche A: 7 years Maturity: 07/16/2020 Tranche B: 10 years Maturity: 07/16/2023	Tranche A: 4 years Maturity: 08/09/2017 Tranche B: 6 years Maturity: 08/09/2019	Tranche A: 3 years Maturity: 09/25/2016 Tranche B: 4 years Maturity: 09/25/2017 Tranche C: 5.5 years Maturity: 03/25/2019 Tranche D: 7.5 years Maturity: 03/25/2021 Tranche E: 9.5 years Maturity: 03/25/2023 Tranche F: 10 years Maturity: 09/25/2023
Outstanding	NT\$7,500,000,000	NT\$7,000,000,000	NT\$9,000,000,000	NT\$9,000,000,000	NT\$4,400,000,000	NT\$13,000,000,000	NT\$15,200,000,000	NT\$13,700,000,000	NT\$8,500,000,000	NT\$12,000,000,000
Credit Rating	twAAA (Taiwan Ratings Corporation, 08/24/2011)	twAAA (Taiwan Ratings Corporation, 12/06/2011)	twAAA (Taiwan Ratings Corporation, 07/02/2012)	twAAA (Taiwan Ratings Corporation, 08/23/2012)	twAAA (Taiwan Ratings Corporation, 09/04/2012)	twAAA (Taiwan Ratings Corporation, 11/29/2012)	twAAA (Taiwan Ratings Corporation, 12/18/2012)	twAAA (Taiwan Ratings Corporation, 05/16/2013)	twAAA (Taiwan Ratings Corporation, 07/15/2013)	twAAA (Taiwan Ratings Corporation, 08/06/2013)
Trustee	Mega International Commercial Bank			Taipei Fubon Commercial Bank						
Guarantor	None									
Underwriter	Not Applicable									
Legal Counsel	Modern Law Office									
Auditor	Deloitte & Touche									
Repayment	Bullet									
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									

USD Corporate Bonds

As of 02/28/2018

Issuance	Senior Unsecured Notes (Note)
Issuing Date	04/03/2013
Denomination	US\$200,000 and integral multiples of US\$1,000 in excess thereof
Listing	Singapore Exchange
Offering Price	2016 Notes: 99.988% 2018 Notes: 99.933%
Total Amount	US\$1,500,000,000
Coupon	2016 Notes: 0.950% p.a. 2018 Notes: 1.625% p.a.
Tenor and Maturity Date	2016 Notes: 3 years Maturity: 04/03/2016 2018 Notes: 5 years Maturity: 04/03/2018
Guarantor	TSMC
Trustee	Citicorp International Limited
Underwriter	Goldman Sachs International

(Continued)

Legal Advisor	Jones Day Maples and Calder	
Auditor	Deloitte & Touche	
Repayment	Bullet	
Outstanding	US\$1,150,000,000	
Redemption or Early Repayment Clause	At issuer's option	
Covenants	Limitations on (1) liens and (2) sale and leaseback transactions	
Credit Rating	Aa3 (Moody's Investors Service, 03/12/2018) A+ (Standard & Poor's Rating Services, 03/15/2013)	
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: Issued by TSMC Global Ltd., a wholly-owned subsidiary of TSMC, and unconditionally and irrevocably guaranteed by TSMC.

4.2.2 Convertible Bond: None.

4.2.3 Exchangeable Bond: None.

4.2.4 Shelf Registration: None.

4.2.5 Bond with Warrants: None.

4.3 Preferred Shares

4.3.1 Preferred Share: None.

4.3.2 Preferred Share with Warrants: None.

4.4 Issuance of American Depositary Shares

Issuing 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	05/14/2001 - 06/11/2001	06/12/2001	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
Total Amount (US\$)	594,720,000	184,554,440	35,500,000	296,499,641	158,897,089	379,134,599	224,640,000	1,167,873,850	240,999,660	297,649,640	320,600,000	1,001,650,000	160,097,914	908,514,880	1,077,000,000	1,402,036,500	2,563,200,000
Offering Price Per ADS (US\$)	24.78	15.26	17.75	24.516	28.964	57.79	56.16	35.75	20.63	20.63	16.03	16.75	8.73	10.40	10.77	8.6	10.68
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	11,682,000	14,428,000	20,000,000	59,800,000	18,348,000	87,357,200	100,000,000	163,027,500	240,000,000
Common Shares Represented	120,000,000	60,470,000	10,000,000	60,470,000	27,430,000	32,800,000	20,000,000	163,339,000	58,410,000	72,140,000	100,000,000	299,000,000	91,740,000	436,786,000	500,000,000	815,137,500	1,200,000,000
Underlying Securities	TSMC Common Shares from Selling Shareholders	TSMC Common Shares from Selling Shareholders	TSMC Common Shares from Selling Shareholders	TSMC Common Shares from Selling Shareholders	TSMC Common Shares from Selling Shareholders (Pursuant to ADR Conversion Sale Program)	TSMC Common Shares from Selling Shareholders (Pursuant to ADR Conversion Sale Program)	TSMC Common Shares from Selling Shareholders	Cash Offering and TSMC Common Shares from Selling Shareholders	TSMC Common Shares from Selling Shareholders (Pursuant to ADR Conversion Sale Program)	TSMC Common Shares from Selling Shareholders	TSMC Common Shares from Selling Shareholders	TSMC Common Shares from Selling Shareholders	TSMC Common Shares from Selling Shareholders (Pursuant to ADR Conversion Sale Program)	TSMC Common Shares from Selling Shareholders	TSMC Common Shares from Selling Shareholders	TSMC Common Shares from Selling Shareholders	TSMC Common Shares from Selling Shareholders
Apportionment of Expenses for Issuance and Maintenance	(Note 3)							(Note 4)	(Note 3)								
Issuance and Listing	NYSE																
Rights and Obligations of ADS Holders	Same as those of Common Share Holders																
Trustee	Not Applicable																
Depository Bank	Citibank, N.A. - New York																
Custodian Bank (Note 1)	Citibank, N.A. - Taipei Branch																
ADSs Outstanding (Note 2)	As of February 28, 2018, total number of outstanding ADSs was 1,068,164,518																
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)	2017	High	42.99														
		Low	29.29														
		Average	35.73														
	01/01/2018 - 02/28/2018	High	46.38														
		Low	40.36														
		Average	43.33														

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, 2018, total number of outstanding ADSs was 1,068,164,518 after 79,670,687 were redeemed.

Note 3: All fees and expenses such as underwriting fees, legal fees, listing fees and other expenses related to issuance of ADSs were borne by the selling shareholders, while maintenance expenses such as annual listing fees and accountant fees were borne by TSMC.

Note 4: All fees and expenses such as underwriting fees, legal fees, listing fees and other expenses related to issuance of ADSs were borne proportionately by TSMC and the selling shareholders, while maintenance expenses such as annual listing fees and accountant fees were borne by TSMC.

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: None.

4.6.2 Employee Restricted Stock Granted to Management Team and to Top 10 Employees: None.

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

4.8 Financing Plans and Implementation: Not applicable.



Suppliers

TSMC works with suppliers to promote sustainable development, and collaborates with them in areas including greening the supply chain, carbon management for climate change, mitigation of fire risk, ESH management, and business continuity plans in the event of natural disaster.

Operational Highlights

5.1 Business Activities

5.1.1 Business Scope

As the founder and leader of the dedicated semiconductor foundry segment, TSMC provides a full range of integrated semiconductor foundry services, including the most advanced process technologies, leading specialty technologies, the most comprehensive design ecosystem support, excellent manufacturing productivity and quality, advanced mask and packaging services, and so on, to meet a growing variety of customer needs. The Company strives to provide the best overall value to its customers and views customer success as TSMC success. As a result, TSMC has won customer trust from around the world and has experienced strong growth and success.

5.1.2 Customer Applications

TSMC manufactured 9,920 different products for 465 customers in 2017. These chips were used across a broad spectrum of electronic applications, including computers and peripherals, information appliances, wired and wireless communication systems, automotive and industrial equipment, consumer electronics such as digital TVs, game consoles, digital cameras and many other devices and applications.

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

5.1.3 Consolidated Shipments and Net Revenue in 2017 and 2016

Unit: Shipments (thousand 12-inch equivalent wafers) / Net Revenue (NT\$ thousands)

		2017		2016	
		Shipments	Net Revenue	Shipments	Net Revenue
Wafer	Domestic (Note 1)	1,650	89,796,998	1,849	127,717,686
	Export	8,799	784,775,622	7,757	733,453,169
Others (Note 2)	Domestic (Note 1)	N/A	7,969,232	N/A	6,802,548
	Export	N/A	94,905,389	N/A	79,964,941
Total	Domestic (Note 1)	1,650	97,766,230	1,849	134,520,234
	Export	8,799	879,681,011	7,757	813,418,110

Note 1: Domestic means sales to Taiwan.

Note 2: Others mainly include revenue associated with packaging and testing services, mask making, design services, and royalties.

5.1.4 Production in 2017 and 2016

Unit: Capacity / Output (million 12-inch equivalent wafers) / Amount (NT\$ millions)

Year	Wafers		
	Capacity	Output	Amount
2017	11-12	10-11	454,603
2016	10-11	9-10	405,462

5.2 Technology Leadership

5.2.1 R&D Organization and Investment

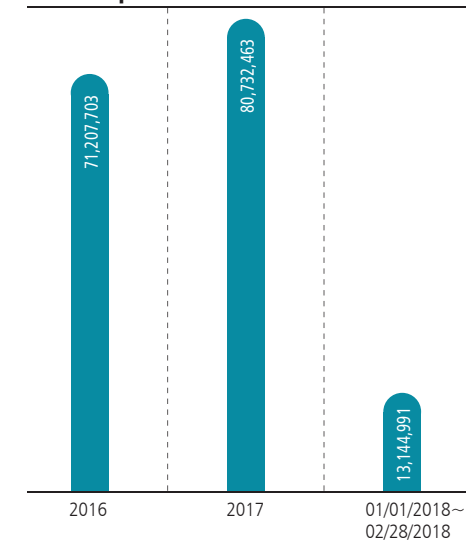
In 2017 TSMC continued to invest in research and development, with total R&D expenditures amounting to 8% of revenue, a level that equals or exceeds the R&D investment of many other leading high-tech companies.

TSMC recognizes that the technology challenge of continuing to extend Moore's Law, the doubling of semiconductor computing power every two years, is becoming increasingly complex and difficult. The efforts of the R&D organization are focused on enabling the Company to continuously offer customers first-to-market, leading-edge technologies and design solutions that contribute to their product success in today's competitive environment. In 2017 the R&D organization met these challenges by completing the transfer to manufacturing of the industry leading 7nm technology, the fourth generation of technology platform to make use of 3D FinFET transistors. The R&D organization continues to fuel the pipeline of technological innovation needed to maintain industry leadership. TSMC's 7nm technology is on track to ramp up volume production in 2018. TSMC 5nm technology continues in full development stage, and the definition and intensive early development efforts have been progressing for nodes beyond 5nm.

In addition to CMOS logic, TSMC conducts R&D on a wide range of other semiconductor technologies that provide the functionality required by customers for mobile SoC and other applications. Highlights in 2017 included: the high-volume production of Gen-2 Integrated Fan-Out Package on Package (InFO-PoP) for mobile application processor packaging; successful qualification of Gen-3 InFO-PoP advanced packaging technology for mobile applications and Integrated Fan-Out on Substrate (InFO-oS) for die-partition and HPC applications; 0.18 μ m third generation BCD (Bipolar-CMOS-DMOS) technology resulting in the leading performance quick charger and wireless charger in 2017; successful production launch of eFlash 40nm node, NOR-based cell technologies and Split-Gate cell for consumer electronics applications such as IoT, smartcards and micro controller units; development and manufacturing qualification of 650V, 100V E-HEMT, and RF 30V D-MISFET GaN devices; and 40nm high-voltage phase-2 technology readiness for both LCD and OLED drivers.

TSMC maintains a network of important external R&D partnerships and alliances with world-class research institutions, including GRC/SRC in the US, and IMEC the highly regarded European R&D consortium, where TSMC is a core partner. TSMC also provides funding for nanotechnology research at leading universities worldwide to promote innovation and the advancement of nano-electronic technology.

R&D Expenditures Amount: NT\$ thousands



5.2.2 R&D Accomplishments in 2017

Highlights

• 7nm Technology

7nm technology offers significant performance, power and density improvement compared to previous technology generations. In 2017, TSMC successfully completed 7nm technology qualification for volume production, as major customers completed IP validation and started product tape-out. Ramp-up to volume production is expected in first half of 2018.

• 5nm Technology

Even though the semiconductor industry is approaching the physical limits of silicon, 5nm technology still follows Moore's Law and delivers substantial density improvement with better performance at same power or lower power consumption at comparable performance. Development activities of 5nm technology in 2017 were focused on test vehicle pilot run, baseline process development, yield ramp, and transistor performance enhancement. In 2018, TSMC will continue

5nm full development focusing on manufacturing baseline process setup, yield learning, transistor and interconnect R/C performance improvement and reliability evaluation, targeting risk production in 2019.

●Lithography Technology

The main focus for R&D lithography in 2017 is 7nm technology transfer, 5nm technology development and preparation of 5nm beyond development. For 7nm development, the technology was smoothly transferred and R&D is working with the fab to clean up the remaining patterning issues. As for 5nm development, EUV (extreme ultraviolet) lithography showed promising imaging capability with expected good wafer yield. R&D is working on EUV cost reduction, mask defect reduction in scanner, and mask-making capability improvement. In 2018, TSMC will intensively focus on improving EUV quality and adopting more EUV layers in 5nm and beyond technology.

In 2017, the EUV program made continuous improvement in light-source power and its stability, which has enabled faster learning rate and process development for advanced nodes. Additional progress was made with resist process, pellicle, and related mask blanks, as EUV technology moves closer to full scale R&D and manufacturing readiness.

●Mask Technology

Mask technology is an integral part of advanced lithography. In 2017, R&D successfully implemented EUV mask technology into 7nm and 5nm nodes. Solid progress was made on the production yield and the reduction of blank native defects to meet high-volume manufacturing requirements.

Integrated Interconnect and Packaging

Wafer Level System Integration (WLSI) is a disruptive technology that leverages TSMC's core competency in wafer processes and capacity in building up heterogeneous system integration and packaging to meet specific customer needs in system-level performance, power, profile, cycle time and cost. WLSI and its associated technology platforms, including CoWoS®, InFO and Under-Bump-Metallurgy Free Integration (UFI), are continuously evolving to fulfill diversified customer needs in mobile computing, IoT, automotive, and high-performance computing.

●3D IC and Si Interposer

Interposer CoWoS® demand is growing rapidly in the high-performance computing (HPC) area, both in volume and the number of products. Typical CoWoS® applications involve

heterogeneous integration of a large logic chip at 16/12/7nm and a growing number of HBM2 (second generation high bandwidth memory) stacks. Consequently, the Si interposer area has grown very fast to an astonishing ~1400mm² in some applications. TSMC continues to provide a complete Si-to-package business model for CoWoS® manufacturing.

●Advanced Fan-Out Packaging

In 2017, TSMC continued to lead in high-volume manufacturing (HVM) of InFO-PoP Gen-2 packaging for mobile applications processors. During the year, the Company also successfully qualified InFO-PoP Gen-3 advanced packaging technology for mobile applications and started risk production in Integrated Fan-Out on Substrate (InFO-oS) for HPC die-partition application. The newly developed InFO-PoP could be stacked with versatile commercial DRAM with competitive performance. This InFO-PoP with backside RDL will boost penetration into mobile application processor application with wide coverage from premium to mid and low tiers. TSMC has scheduled HVM readiness by end of 2018. To meet demand with the coming of 5G mobile communications, TSMC has developed an advanced InFO antenna in package (InFO-AIP) technology, in which the RF chip and millimeter-wave antenna are integrated into an InFO package. InFO-AIP technology provides high-performance, low-power, small-size, low-cost solutions for millimeter wave system applications such as 5G mobile, video streaming and virtual reality (VR) wireless communications. This technology can also support the fast-evolving applications in car radar, auto-driving and driving safety.

●Advanced Interconnect

TSMC has made significant progress in innovative materials and processes for continuous interconnect scaling. The Company has developed and verified a novel low-k process using selective deposition on dielectric, which can lower capacitance loading, improve electric performance and enhance device reliability. In addition, TSMC has developed a new barrier and copper gap filling process to further extend copper material applications and provide competitive wire conductance and via resistance for advanced technology nodes. Verification of these new materials and processes is progressing well for beyond 5nm technologies.

Advanced Transistor Research

Innovation in transistor architectures and materials continues to enable higher speed and reduced power consumption in advanced logic technologies. TSMC is at the forefront of

transistor research in areas such as high mobility channel, novel gate stack materials, and device structures for reduced operating voltage and enhanced off state control. TSMC research is well positioned to pave the way for continued density scaling, performance enhancement and power reduction to deliver advanced logic technologies for mobile and high-performance applications.

Specialty Technologies

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

●Mixed Signal/Radio Frequency (MS/RF) Technology

In 2017, in order to facilitate circuit design for the increasing demand of 5G cutting-edge wireless technologies, TSMC successfully delivered 22nm devices with a Si-based millimeter-wave (mmWave) model to fulfill a customer's request for transceiver design to support faster application. To achieve better performance in insertion loss and isolation, TSMC reduced the key parameter $R_{on-Coff}$ to ~85 fs (femtosecond) in 0.11 μ m process for cellular/Wi-Fi RF switch applications as a lower-cost alternative.

●Power IC/Bipolar-CMOS-DMOS (BCD) Technology

TSMC's 0.18 μ m third-generation BCD technology went into production in 2017. The technology provides the world's leading performance for fast charger, wireless charger and panel Power Management IC (PMIC). TSMC continually enriches this platform to cover more PMIC applications with 40nm eFlash compatible 7-30V HV (high voltage) devices for the first time to enable low power, high integration and small footprint in mobile applications.

●Panel Drivers

In 2017, TSMC completed 40nm high-voltage phase-2 technology qualification and transferred to fab. Several customers passed product qualification with good yield. This technology supports Super Retina display driver ICs in LCD, OLED and touch-display driver ICs for high-end mobile phones. For next generation HV panel display driver, TSMC plans to deliver high-speed, low active power 28HPC+ technology in both wafer-on-wafer stacking and high-voltage monolithic technologies.

●Micro-electromechanical Systems (MEMS) Technology

In 2017, TSMC's modular MEMS technology was qualified for mass production of accelerometers and a pilot run of high-resolution pressure sensors. Future plans include

the development of next-generation high-sensitivity thin microphone, MEMS Si-pillar TSV (through silicon via) technology and BioMEMS applications.

●GaN Technology

The next generations of 650V/100V enhanced-high electron mobility transistor (E-HEMT) and RF 30V D-MISFET GaN devices were developed and qualified for manufacturing in 2017.

●Complementary Metal-Oxide-Semiconductor (CMOS) Image Sensor Technology

In 2017, TSMC had several achievements in CMOS image sensor technology including: (1) high-performance sub-micron pixel development, which was completed and made ready for mass production; (2) quantum efficiency (QE), which gained significant boost on near-infrared sensors by innovated structure and usage of new material; and (3) pitch density of wafer bond technology, which was pushed higher to maintain the Company's world-wide leading position.

●Embedded Flash/Emerging Memory Technology

TSMC achieved several major milestones in non-volatile memory (NVM) technologies in 2017. At the 40nm node, NOR-based cell technology with Split-Gate cell was successfully mass-produced to support consumer electronics applications such as IoT, smartcards and micro controller units (MCU). This technology will be incorporated in automobile electronics and mass production is expected in first half of 2018. Embedded flash development on the 28nm low-power and 28nm high-performance mobile computing platforms has demonstrated preliminary yield and reliability, and technical qualification is expected in 2019 for low-leakage applications in areas such as automobile electronics and micro controller units. TSMC is developing embedded resistive random access memory (RRAM) technology as a low-cost solution to split-gate technology, completing the 40nm technical qualification. With production expected in 2018, this technology will be mainly applied to the price sensitive IoT market. 22nm embedded resistive memory technology is also being developed. Compared to 40nm technology, 22nm embedded resistive memory unit cell area will be substantially scaled and expected to enter mass production in 2020. TSMC is also developing embedded MRAM (Magnetoresistive Random Access Memory) technology as embedded-flash technology replacement beyond 40nm node for many emerging applications.

5.2.3 Technology Platform

TSMC provides customers with advanced technology platforms that include the comprehensive design infrastructure required to optimize design productivity and cycle time. These include: design flows for electronic design automation (EDA); silicon-proven IP building blocks, such as libraries; and simulation and verification design kits, i.e., process design kits (PDKs) and technology files.

For TSMC's latest advanced technologies of 7nm, 12nm and 3D IC design enablement platform, EDA tools, features and IP solutions are readily available for customers to adopt to meet their product requirements at various design stages. TSMC also extended its IP quality program (TSMC 9000) to allow IP audits to be performed either at TSMC or at TSMC-certified laboratories. To help customers plan new product tape-outs incorporating IP/Library from TSMC's Open Innovation Platform® (OIP) ecosystem, the OIP ecosystem added a portal to connect customers to an ecosystem of 40 solution providers. Overall, TSMC and its IP partners have accumulated a portfolio of 16,000 IP titles, from 0.35 μ m-7nm with major IP types to meet customer design needs. TSMC and its EDA partners have created numerous deliverables from 0.13 μ m-7nm that have successfully supported customer tape-outs.

5.2.4 Design Enablement

TSMC's technology platforms provide a solid foundation to facilitate the design process. Customers can design directly using the Company's internally developed IP and tools or using those that are available from TSMC's OIP partners.

Tech Files and PDKs

EDA tool certification is an essential foundation for IP and customer designs to ensure that the features meet TSMC process technology requirements, with certification results that can be found on TSMC-Online. There are corresponding technology files and process development kits (PDKs) available for customers to download and design together 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 across a range of technology nodes from 0.5 μ m to 7nm. In addition, the Company provides technology files for design rule checking (DRC), layout verification of schematic (LVS), resistance-capacitance (RC) extraction, automatic place and route, and a layout editor to ensure process technology

information is accurately represented in electronic design automation tools. By 2017, TSMC had provided more than 9,000 technology files and more than 300 PDKs via TSMC-Online. There are more than 100,000 customer downloads of these files every year.

Library and IP

Silicon Intellectual property (IP) is the basic building block of integrated circuit designs. Various IP types are available to support different customer design applications including foundation IP, analog IP, embedded memory IP, interface IP and soft IP. TSMC and its alliance partners offer customers a rich portfolio of reusable IPs, which are essential building blocks for many circuit designs. In 2017, the Company expanded its library and silicon IP portfolio to contain more than 16,000 items, a 33% increase over 2016.

Design Methodology and Flow

Reference flows are built on top of certified EDA (Electronic Design Automation) tools to provide additional design flow methodology innovations that can help boost productivity. In 2017, TSMC addressed critical design challenges associated with the new 7nm+, 12nm FinFET and 3DIC technology for digital and SoC applications by announcing the readiness of reference flows through OIP collaboration that feature FinFET-specific design solutions and methodologies for performance, power and area optimization.

5.2.5 Intellectual Property

A strong portfolio of intellectual property rights strengthens TSMC's technology leadership and protects our advanced and leading-edge technologies. As of end of 2017, TSMC has accumulated over 40,000 patent applications, and over 30,000 patent grants worldwide. In 2017, TSMC has obtained 2,428 U.S. patents to rank #9 among U.S. patent assignees, making the ranking of top 10 U.S. patent assignees for the second consecutive year. Additionally, TSMC actively develops worldwide patent strategy, ranking #1 among patent applicants in Taiwan, and obtaining over 1,100 patents in Taiwan and China. In terms of patent quality, the average allowance rate of TSMC's U.S. applications is 98% and ranks #1 among top 10 U.S. patent assignees. Going forward, TSMC will continue to implement a unified strategic plan for intellectual capital management, combining with strategic considerations and close alignment with the business objectives, to drive the timely creation, management and use of intellectual property.

TSMC has established a process to generate company value from intellectual property by aligning intellectual property strategy with R&D, business operation objectives, marketing, and corporate development strategies. Intellectual property rights protect the company's freedom to operate, enhance competitive position, and provide leverage to participate in many profit-generating activities.

TSMC has worked continuously to improve the quality of intellectual property portfolio and to reduce the maintenance costs. TSMC will continue to invest in intellectual property portfolio and intellectual property management system to ensure the company's technology leadership and receive maximum business value from intellectual property rights.

5.2.6 TSMC University Collaboration Programs

In recent years TSMC has significantly expanded its collaboration on research projects at some of Taiwan's most prestigious universities. The mission of these projects is twofold: to increase the number of highly qualified students suitable for employment in the semiconductor industry, and to inspire university professors to initiate research programs that focus on the frontiers of semiconductor science, including device, process and materials technology, semiconductor manufacturing and engineering science, and specialty technologies for electronic applications. In the past five years, TSMC has established research centers at four institutions: National Chiao Tung University, National Taiwan University, National Cheng Kung University and National Tsing Hua University. In 2015, TSMC started collaborating with the International College of Semiconductor Technology, National Chiao Tung University and continued to enhance cooperation with other schools. Currently, several hundred high-caliber students have joined the research centers with backgrounds in the disciplines of electronics, physics, materials, chemistry, chemical engineering and mechanical engineering.

In addition, TSMC also conducts strategic research projects at top overseas universities, such as Stanford, MIT, UC Berkeley and so on. The focus is on disruptive capabilities in transistors, interconnect, patterning, modeling and special technologies.

TSMC University Shuttle Program

The TSMC University Shuttle Program was established to provide professors at leading research universities worldwide with access to the advanced silicon process technologies

needed to research and develop innovative circuit design concepts. This program links motivated professors and graduate students with enthusiastic managers at TSMC in order to promote excellence in the development of advanced silicon design technologies and nurture new generations of engineering talent in the semiconductor field.

The program provides access to TSMC silicon process technologies for digital and analog/mixed-signal circuits, RF designs and micro-electromechanical system designs. Participants include major university research groups worldwide. TSMC and the University Shuttle Program participants achieve "win-win" collaboration through the program, which allows graduate students to implement exciting designs and achieve silicon proof points for innovations in various end-applications.

5.2.7 Future R&D Plans

To maintain and strengthen TSMC's technology leadership, the Company plans to continue investing heavily in R&D. For advanced CMOS logic, the Company's 7nm and 5nm CMOS nodes continue progressing in the pipeline. In addition, the Company's reinforced exploratory R&D work is focused on beyond-5nm node; in areas such as 3D transistors, new memory, and low-R interconnect, on track to establish a solid foundation to feed into technology platforms. For 3D IC advanced packaging, innovations for energy-efficient sub-system integration and scaling provide further augmentation to CMOS logic applications. For specialty technologies, the Company has intensified focus on new specialty technologies such as RF and 3D intelligent sensors targeting 5G and smart IoT applications. In 2017, a new Corporate Research function is established to focus on novel materials, process, devices, nanowires, memories, and etc. for long term horizon which is beyond 8-10 years. The Company also continues to collaborate with external research bodies from academia to industry consortia alike with the goal of extending Moore's Law and paving the road to future cost-effective technologies and manufacturing solutions for its customers.

With a highly competent and dedicated R&D team and its unwavering commitment to innovation, TSMC is confident in its ability to deliver the best and most cost-effective SoC technologies to its customers and to drive future business growth and profitability for years to come.

Summary of TSMC's Major Future R&D Projects

Project Name	Description	Risk Production (Estimated Target Schedule)
5nm logic platform technology and applications	5 th generation FinFET CMOS platform technology for SoC	2019
Beyond-5nm logic platform technology and applications	6 th generation FinFET CMOS platform technology for SoC	2021
3D IC	Cost-effective solution with better form factor and performance for System-in-Package (SiP)	2018-2020
Next-generation lithography	EUV lithography and related patterning technology to extend Moore's Law	2018-2020
Long-term research	Specialty SoC technology (including new NVM, MEMS, RF, analog) and transistors for 8-10 year out horizon	2018-2025

The projects above account for roughly 70% of the total R&D budget for 2018, estimated to be around 8% of 2018 revenue.

5.3 Manufacturing Excellence

5.3.1 GIGAFAB® Facilities

Maintaining dependable capacity is a key part of TSMC's manufacturing strategy. The Company currently operates three 12-inch GIGAFAB® facilities – Fabs 12, 14 and 15. The combined capacity of the three facilities exceeded 7 million 12-inch wafers in 2017. Production within these three facilities supports 0.13μm, 90nm, 65nm, 40nm, 28nm, 20nm, 16nm, 10nm, and 7nm process technologies, including each technology's sub-nodes. An additional portion of the capacity is reserved for R&D work on leading-edge manufacturing technologies, which currently supports the technology development of the 5nm node and beyond.

TSMC has developed a centralized fab manufacturing management system, Super Manufacturing Platform (SMP), to provide customers with greater benefits in the form of more consistent quality and reliability, improved flexibility to cope with demand fluctuations, faster yield learning and time-to-volume, and lower-cost product requalification.

5.3.2 Engineering Performance Optimization

As advanced technology continues to evolve and the geometry keeps shrinking, the need for tighter process control has become extremely challenging for manufacturing. TSMC's unique manufacturing infrastructure is tailored for a diversified product portfolio, which uses strict process control to attain tightened specs and higher product quality and product performance requirements. To achieve overall optimization

of equipment, process and yield, the process control and analysis systems have been integrated with many intelligent functions to perform self-diagnosis and self-reaction, which have demonstrated remarkable results in yield enhancement, workflow improvement, fault detection, cost reduction and shortening of the R&D cycle.

TSMC has developed systems for precise fault detection and classification, intelligent advanced equipment control and intelligent advanced process control to monitor the manufacturing process in a timely manner and adjust conditions precisely. To satisfy advanced and accurate process control and ensure highly efficient and effective production, the Company has created precision equipment matching and yield mining to minimize process variation and potential yield loss. The Company has further developed Big Data, Machine Learning, and Artificial Intelligence architecture to identify critical variables to optimize yield management and operating efficiency to fulfill special process requirements such as automotive products and to cope with diversified product demand simultaneously.

5.3.3 Agile and Intelligent Operations

The Company's sophisticated agile operation system continues to drive manufacturing excellence by integrating demand and capacity modeling, lean Work in Process (WIP) line management, and lot dispatching and scheduling to provide fast ramp-up, short cycle time, stable manufacturing and on-time delivery. The system also provides great flexibility to quickly support customers' urgent pull-in requests when needed.

TSMC has also introduced new applications such as IoT, intelligent mobile devices and mobile robots to consolidate data collection, yield traceability, workflow efficiency, and material transportation to continuously enhance fab operation efficiency.

Following its commitment to manufacturing excellence, TSMC has integrated automatic manufacturing system and machine learning technology, and then achieve intelligent fabs. Machine learning technology revolutionizes fab operation mode from "auto" to "intelligent", and widely applied in scheduling and dispatching, people productivity, equipment productivity, process and equipment control, quality defense, and robotic control. So as to optimize efficiency, flexibility and quality while maximizing cost effectiveness and accelerating overall innovation.

5.3.4 Raw Materials and Supply Chain Management

In 2017, TSMC continued to review and resolve supply issues, quality issues and potential supply chain risks through the collaboration of teams formed by operations, quality control and business organizations. TSMC also worked with suppliers to advance material and process innovation, improve quality and create recycling economy with benefits from win-win solutions.

Raw Materials Supply

Major Materials	Major Suppliers	Market Status	Procurement Strategy
Raw Wafers	F.S.T. GlobalWafers S.E.H. Siltronic SUMCO	These 5 suppliers together provide over 90% of the world's raw wafer supply. Each supplier has multiple manufacturing sites in order to meet customer demand, including plants in North America, Asia, and Europe. World-wide demand for raw wafer has remained strong through 2017 and expected to continue in 2018.	<ul style="list-style-type: none"> 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 better manage the cost and supply.
Chemicals	Air Liquide Avantor BASF Entegris Fujifilm Electronic Materials Kanto PPC Kuang Ming Merck RASA Tokuyama Versum Wah Lee	These 12 companies are the major worldwide suppliers of chemicals.	<ul style="list-style-type: none"> Most suppliers have relocated some of their operations closer to TSMC's major manufacturing facilities, thereby significantly improving procurement logistics. All supplied products are regularly reviewed to ensure that TSMC's specifications are met and product quality is satisfactory. TSMC encourages and engages with chemical suppliers to implement innovative green solutions for waste reduction
Lithographic Materials	3M Asahi Kasei Dow Chemical Fujifilm Electronic Materials JSR Merck Nissan Shin-Etsu Chemical Sumitomo T.O.K.	These 10 companies are the major worldwide suppliers of lithographic materials.	<ul style="list-style-type: none"> 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 to ensure continuous progress of TSMC's supply chain. Some major suppliers have relocated or plan to replicate their manufacturing sites closer to TSMC's major manufacturing facilities, thereby significantly improving procurement logistics and reducing supply risks.
Gases	Air Liquide Air Products Central Glass Entegris Linde LienHwa Praxair SK Materials Taiwan Material Technology Taiyo Nippon Sanso Versum	These 10 companies are the major worldwide suppliers of specialty gases.	<ul style="list-style-type: none"> The majority of these suppliers have facilities in multiple geographic locations, which minimizes supply risk for TSMC. TSMC conducts periodic audits to ensure that they meet TSMC's standards.
Slurry, Pad, Disk	3M Cabot Microelectronics Dow Chemical Fujibo Fujifilm Electronic Materials Fujimi JSR Kinik Versum	These 9 companies are the major worldwide suppliers of CMP (Chemical Mechanical Polishing) materials.	<ul style="list-style-type: none"> 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 to ensure continuous progress of TSMC's supply chain. Most suppliers have relocated or plan to replicate some of their manufacturing sites closer to TSMC's major manufacturing facilities, thereby significantly improving procurement logistics and reducing supply risks.

Suppliers Accounted for at Least 10% of Annual Consolidated Net Procurement

Unit: NT\$ thousands

Supplier	2017			2016		
	Procurement Amount	As % of 2017 Total Net Procurement	Relation to TSMC	Procurement Amount	As % of 2016 Total Net Procurement	Relation to TSMC
Company A	8,868,953	17%	None	9,140,880	17%	None
Company B	8,029,455	15%	None	7,065,392	14%	None
VIS	5,755,727	11%	Investee accounted for using equity method	6,732,297	13%	Investee accounted for using equity method
Company C	5,579,238	10%	None	3,785,553	7%	None
Company D	5,156,154	10%	None	3,832,363	7%	None
Company E	37,707	0%	None	5,527,526	11%	None
Others	19,766,419	37%		16,100,032	31%	
Total Net Procurement	53,193,653	100%		52,184,043	100%	

5.3.5 Quality and Reliability

TSMC's strong industry reputation stems from its commitment to provide customers with the highest-quality wafers and best service for their products. Quality and Reliability (Q&R) services aim to achieve "quality on demand" to fulfill customers' requirements for time-to-market delivery, product reliability, and competitiveness over a broad range of product market segments. Automotive quality improvement program is implemented to meet automotive customers' low Defect Parts Per Million (DPPM) requirement.

Q&R technical services assist customers in the technology developmental stages and product design stages to design-in superior product reliability. In 2017, Q&R has worked with R&D in advanced logic technology, specialty technology and advanced packaging technology development and qualification. Q&R has successfully qualified the leading-edge 7nm technology (the third FinFET generation) and characterized process window with Fab for mass production in 2018. TSMC has led the industry in 7nm technology qualification and built up a complete model to simulate thermal dissipation effect during FinFET operation. In addition, Electronic Design Automation (EDA) tool for thermal simulation has been introduced to provide design guidance to customers. Through the 7nm development, profound reliability learning in new material, new process steps and new reliability methodology provided important foundation for 5nm technology development. For specialty technologies, Q&R completed the Diffractive Optical Element (DOE) product qualification and ramp into mass production on schedule to support one of our key customer's new product launch with 3D sensing and facial recognition application, and the DOE units were shipped to our customer. In addition, Q&R worked with customers to complete stacked CMOS Image Sensor (CIS) Column Level Hybrid Bond (CLHB) process/product qualification and successfully shipped to customers in 2017. In high-voltage technologies, 0.13 μ m Bipolar-CMOS-DMOS (BCD) and 0.18 μ m second generation BCD process passed automotive grade qualification. For CoWoS[®] packaging technologies, Q&R integrated High Bandwidth Memory with advanced silicon technology and completed component level, board level and customer product system level qualifications. It has been in production and has shipped to key customers without quality or reliability issues. The technology enables the applications of High Performance Computing and Artificial Intelligence. In addition, Integrated Fan-Out (InFO) assembly technology for mobile application has been moving into the second generation of manufacturing. Over 100 million InFO devices have been shipped without any InFO related quality or reliability issues.

To enhance employees' problem solving capabilities and develop associated quality system and methodology, Q&R continued to hold several company-wide symposiums and training programs such as Total Quality Excellence (TQE), Design of Experiment (DOE), Statistical Process Control (SPC) and Metrology in 2017 including the promotion and training of Deep/Machine Learning. Deep machine learning methodology was successfully applied for wafer defects automatic classification and advanced spectral analysis to detect differences among processes and equipment such that improvement actions can be triggered. In 2018, Q&R will continue

the development of employees' capabilities by promoting and using new methodology to enhance TSMC competitiveness. In response to raw materials quality improvement, Q&R coached raw materials suppliers to participate in the 2017 National Quality Control Circle Competition and achieved good results. Through this activity, quality improvement and competitiveness enhancement were thus promoted.

In the ramping of leading edge technologies, one of the most challenging tasks in electrical failure analysis (EFA), is to determine the physical location of which one among the millions of transistors in a chip is causing the failure. In 2017, Q&R acquired industry leading capability in this area that is not only suitable for 7nm technology but is extendable to 5nm technology node.

The health and safety of employees has always been a priority in TSMC. In 2017, raw materials suppliers were required to provide non-PFOA (Perfluorooctanoic acid) raw materials to replace the existing PFOA-containing raw materials to fulfill the green procurement policy. Since the end of 2015, Q&R has collaborated with Environmental Safety and Health (ESH) organization to build capability to detect and analyze carcinogenic, mutagenic and reprotoxic (CMR) substances. In 2017, TSMC also continued to invest in safety equipment such as better hoods and exhausts to improve the laboratory environment in which TSMC employees work.

Q&R is also responsible for leading the Company toward the ultimate goal of zero-defect production through the use of continuous improvement programs. Periodic customer feedback indicates that products shipped from TSMC have consistently met or exceeded their field quality and reliability requirements. In 2017, a third-party audit verified the effectiveness of TSMC quality management systems in compliance with IATF 16949: 2016 and IECQ QC 080000: 2012 certificates requirements. In addition, Q&R and Fabs have jointly worked on new enhancement for automotive product quality improvement including design rule implementation and migration to Automotive Quality System 2.0 in 2017 which covers Fab in-line and Wafer Acceptance Test Cpk (process capability index) tightening and maverick wafers/lots handling. Q&R also provides dedicated resources for field/line return analysis, timely physical failure analysis (PFA) for process improvement to meet automotive customers' low DPPM requirement.

5.4 Customer Trust

5.4.1 Customers

TSMC's customers worldwide have a variety of successful product specialties and excellent performance records in various segments of the semiconductor industry. Customers include fabless semiconductor companies, systems companies, and integrated device manufacturers such as Advanced Micro Devices, Inc., Bitmain Technologies Limited, Broadcom Limited, Hisilicon Technologies Co. Ltd, Intel Corporation, Marvell Technology Group Ltd., MediaTek Inc., NVIDIA Corporation, NXP Semiconductors N.V., Qualcomm Inc., Sony Corporation, Texas Instruments Inc., and many more.

Customer Service

TSMC believes that providing superior service is critical to enhancing customer satisfaction and loyalty, which, in turn, is very important to retaining existing customers, strengthening customer relationships and attracting new customers. With a dedicated customer service team as the main contact for coordination and facilitation, TSMC strives to provide world-class design support, mask making, wafer manufacturing, and backend services to provide customers an optimum experience and, in return, gain customer trust and sustain Company revenues and profitability.

To facilitate customer interaction and information access on a real-time basis, TSMC-Online offers a suite of web-based applications that play an active role in design, engineering and logistics collaborations. Customers have 24/7 access to critical information and customized reports. Design collaboration focuses on content availability and accessibility, with close attention paid to complete, accurate and up-to-date information at each stage of the design life cycle. Engineering collaboration includes online access to engineering lots, wafer yields, wafer acceptance test (WAT) analysis, and quality and reliability data. Logistics collaboration provides access to data on any given order status in wafer fabrication, backend process and shipping.

Customer Satisfaction

To measure customer satisfaction and to ensure that customer needs are fully understood, TSMC conducts an annual customer satisfaction survey (ACSS) with most active customers, either by web or interview through an independent consultancy.

Complementary to the survey, quarterly business reviews (QBRs) are also conducted by the customer service team so that customers can give feedback to TSMC on a regular basis. Through surveys, feedback reviews and intensive interaction with customers, TSMC is able to stay in close touch for better service and collaboration.

Customer feedback is routinely reviewed, analyzed and then used to develop appropriate improvement plans, all in all becoming an integral part of the customer satisfaction process with a complete closed loop. TSMC uses data derived from the survey as a base to identify future focus areas. TSMC acts on the belief that customer satisfaction leads to healthy relationships, and healthy relationships lead to higher levels of retention and expansion.

Customers that Accounted for at Least 10% of Annual Consolidated Net Revenue

Unit: NT\$ thousands

Customer	2017			2016		
	Net Revenue	As % of 2017 Total Net Revenue	Relation to TSMC	Net Revenue	As % of 2016 Total Net Revenue	Relation to TSMC
Customer A	214,228,766	22%	None	157,185,418	17%	None
Customer B	64,096,227	7%	None	107,463,238	11%	None
Others	699,122,248	71%		683,289,688	72%	
Total Net Revenue	977,447,241	100%		947,938,344	100%	

5.4.2 Open Innovation Platform® (OIP) Initiative

Innovation has always been an exciting and challenging proposition. Competition among semiconductor companies continues to grow more intense in the face of increasing customer consolidation and the commoditization of technology at more mature, conventional levels. Companies must find ways to keep innovating in order to survive and prosper. One way to accelerate innovation is through active collaboration with external partners. At TSMC this is known as the “Open Innovation® approach” and it is an “outside in” approach to complement traditional “inside out” methods. TSMC has adopted this path to innovate via its Open Innovation Platform® 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 reduce design barriers and improve first-time silicon success. OIP promotes the speedy implementation of innovation amongst the semiconductor design community and its ecosystem partners using TSMC’s IP, design implementation and design for manufacturability (DFM) capabilities, process technology and backend services.

Crucial to OIP are ecosystem interfaces and collaborative components initiated and supported by TSMC that more efficiently 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 accuracy 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, time-to-market and, ultimately, time-to-revenue. The model features:

- the foundry segment’s earliest and most comprehensive electronic design automation certification program, delivering timely design tool enhancement required by new process technologies;

- the foundry segment’s largest, most comprehensive and robust silicon-proven IP (intellectual properties) and library portfolio; and
- comprehensive design ecosystem alliance programs covering market-leading EDA, library, IPs, and design service partners.

TSMC’s OIP alliance consists of 21 EDA partners, 40 IP partners, and 23 design service partners. TSMC and its partners work together proactively and engage much earlier and deeper than before in order to address mounting design challenges at advanced technology nodes. Through this early and intensive collaboration effort, TSMC’s 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 customers’ success.

TSMC’s OIP partner management portal facilitates communication with our ecosystem partners for efficient business productivity. Designed with a highly intuitive interface, this portal can be accessed via a direct link from TSMC-Online.

TSMC held its 2017 Open Innovation Platform® Ecosystem Forum in September in Santa Clara, California with over 1,300 attendees. The annual event demonstrates how TSMC and our ecosystem partners jointly develop design solutions on top of TSMC’s advanced technologies through OIP collaboration. TSMC executive delivered key messages to help customer products’ time-to-market. TSMC has expanded design ecosystem solutions to address market demands with four application specific design platforms consisting of Mobile, High Performance Computing (HPC), Internet of Things and Automotive. In addition, TSMC continues to enhance 3DIC solutions to integrate high bandwidth memory (HBM) on integrated fan-out design flow to meet customers’ system integration and high memory bandwidth requirements. Furthermore, machine learning is being leveraged to enhance customers’ design power, performance and area (PPA) and productivity.

5.5 Human Capital

Human capital is TSMC’s most treasured asset. In this regard, the Company’s main role is to provide jobs with challenging, meaningful work in a safe environment with excellent compensation and benefits. TSMC goes beyond this, however,

by actively encouraging employees to nurture and enjoy a healthy family life, to develop outside interests, to expand social participation, and, in general, live a happy life.

TSMC believes that all employees, including contractors, and interns, should be treated with dignity and respect. Reflecting this commitment to employees, the Company has implemented a “TSMC Human Rights Policy,” which is based on “the International Bill of Human Rights,” “The International Labour Organization’s (ILO) Declaration on Fundamental Principles and Rights at Work” and “The United Nations Global Compact’s Ten Principles,” and adopts Responsible Business Alliance (RBA) Code of Conduct.

TSMC participates in the Responsible Business Alliance, RBA as a full member; the Company refrains from forcing employees to do unwilling labor service, listens to the employees, keeps communication channels open, respects employees’ right to form a labor union, and does not in any way impede employees’ freedom of association.

5.5.1 Workforce Structure

At the end of 2017, TSMC had 48,602 employees worldwide, including 5,107 managers, 21,895 professionals, 4,082 assistants, and 17,518 technicians. The following table summarizes TSMC’s workforce as of the end of February, 2018:

		12/31/2016	12/31/2017	02/28/2018
Job	Managers	4,909	5,107	5,150
	Professionals	20,719	21,895	21,913
	Assistant Engineer/Clerical	3,934	4,082	4,102
	Technician	17,406	17,518	17,445
Total		46,968	48,602	48,610
Gender	Male (%)	59.9%	60.7%	60.8%
	Female (%)	40.1%	39.3%	39.2%
Education	Ph.D.	4.5%	4.6%	4.7%
	Master’s	40.3%	41.5%	41.6%
	Bachelor’s	26.7%	26.3%	26.2%
	Other Higher Education	11.6%	11.4%	11.4%
	High School	16.9%	16.2%	16.1%
Average Years of Age		35.2%	35.7	35.8
Average Years of Service		7.9%	8.4	8.5

5.5.2 Recruitment

The key elements of TSMC's success and growth depend on our employee who shares common goals and interests. In order to strengthen growth momentum, the Company is dedicated to recruiting top-notch professionals for all positions available. TSMC is an equal opportunity employer and operates on the principles of open and fair recruitment. The hiring principals are integrity and ability, and the Company evaluates all candidates according to their qualifications as related to the requirement of each position without regard to race, gender, age, religion, nationality or political affiliation.

TSMC's continuous growth requires constant talent sourcing and recruitment activities to support its business. The Company recruited more than 3,600 employees in 2017, including over 2,500 managers and professionals, as well as over 1,000 assistants and technicians.

5.5.3 People Development

Employee development is an integral and critical factor for the growth of any company and should be goal oriented, disciplined and planned. TSMC is committed to stretching employees' potential by providing challenging work, global workplace and internal rotation opportunities. TSMC also committed to cultivating a consistent and diverse learning environment. To this end, the Company has initiated the "TSMC Employee Training and Education Procedure" to ensure the Company's and the individuals' development objectives can be achieved through the integration of internal and external training resources.

In order to actively develop talent and create a high-performance work environment, TSMC integrates internal and external resources and designs diversified development programs based on business objectives, the nature of the individual's job, work performance and career development path. The Company provides employees a diverse network of learning resources, including on-the-job training, classroom training, e-learning, coaching, mentoring and job rotation; it also creates an educational atmosphere through learning activities in response to organization development requirements and employee capability enhancement goals.

The Company provides employees with a wide range of onsite general, professional and management training programs. In addition to engaging external experts as trainers, hundreds of TSMC employees are trained to be qualified instructors to deliver their valuable knowhow in internal training courses.

TSMC's training programs include:

- New employee – for basic training and job orientation. In addition, newcomers' managers and the Company's well-established buddy system are in place to support new hires in their assimilation process in both corporate culture and work requirements.
- General – refers to training required by government regulations and/or Company policies, as well as training on general subjects for all employees or employees of different job functions. Topics include industry-specific safety, workplace health and safety, quality, fab emergency response and personal effectiveness.
- Professional/functional – technical and professional training required by different functions within the Company. TSMC offers training courses on equipment engineering, process engineering, accounting, information technology, and so forth.
- Management – management development programs tailored to the needs of managers at all levels based on their managerial capabilities and responsibilities, including new, experienced, and senior managers; optional courses are also available.
- Direct labor – training for production-line employees to acquire the knowledge, skills and approaches they need to perform their jobs well and to pass certification for operating equipment. Includes direct labor skill training, technician "Train the Trainer" training, and manufacturing leader training.
- Customized – programs tailored to the needs of the organization and/or the employee's development plan.

In 2017, TSMC conducted 973 internal training sessions, which translated to a companywide total of 627,063 training hours with the participation of 539,334 attendees. Employees on average attended over 13 hours of training with total training expenses reaching NT\$63,277,222.

Apart from internal training resources, our employees are also subsidized when pursuing external short-term courses, for-credit courses and degrees.

5.5.4 Compensation

Employment at TSMC entitles employees to a comprehensive compensation and benefits program above the industry average. TSMC provides a diversified compensation program that is competitive externally, fair internally, and adapted locally. TSMC adheres to the philosophy of sharing wealth with employees in order to attract, retain, develop, motivate and reward talented employees. With sound business results for the past 30 years, the actual total compensation received by employees has also been above the industry's average.

TSMC's compensation program includes a monthly salary, employee cash bonuses based on quarterly business results, and an employee profit sharing bonus based on annual profits.

The purpose of the employee cash bonus and profit sharing bonus programs is to reward employee contributions appropriately, to encourage employees to work consistently toward ensuring the success of TSMC, and to align employees' interests with those of TSMC's shareholders so as to achieve win-win among the Company, shareholders and employees. The Company determines the amount of the cash bonus and profit sharing bonus based on operating results and industry practice in the Republic of China. The amount and distribution approach of the employee cash bonus and profit sharing bonus are recommended by the Compensation Committee to the Board of Directors for approval. Individual rewards are based on each employee's job responsibility, contribution and performance.

The same philosophy applies to TSMC's compensation programs of overseas subsidiaries. In addition to providing employees of TSMC's overseas subsidiaries with a locally competitive base salary, the Company grants annual bonuses as a part of total compensation. The annual bonuses are granted in line with local regulations, market practices, and the overall operating performance of each subsidiary, to encourage employee commitment and development with the Company.

5.5.5 Employee Engagement

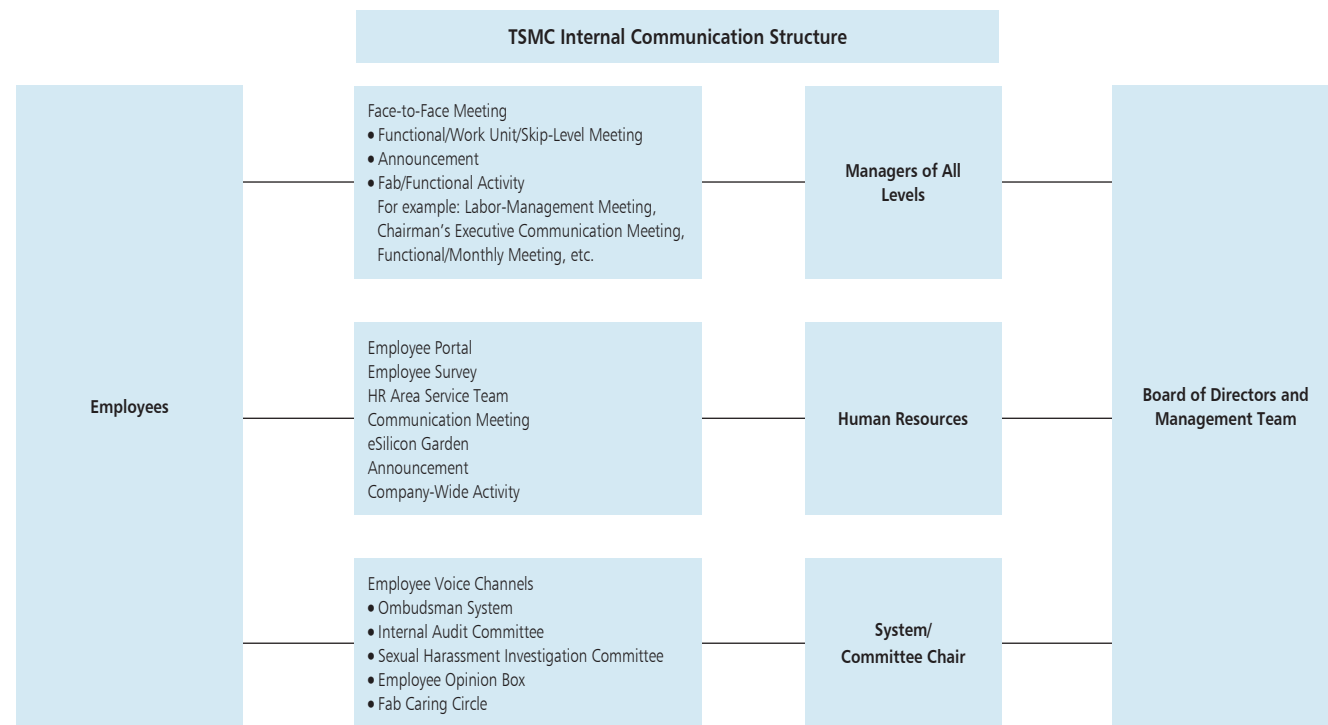
The Company encourages employees to maintain a healthy and well-balanced life while pursuing their goals effectively. TSMC continuously facilitate employee communication, and provide employee caring, benefit, rewards and recognition programs, including:

Employee Communication

TSMC values two-way communication and is committed to keeping communication channels open and transparent for the management, subordinates and peers. To ensure that employees' opinions and voices are heard and their issues are addressed effectively, impartial submission mechanisms, including quarterly labor-management communication meetings, are in place to provide fair and timely support. TSMC makes continuous efforts to facilitate mutual and timely employee communication, based on multiple channels and platforms, which in turn fosters harmonious labor relations and creates a win-win situation for the Company and employees.

A host of two-way communication channels are constructed to maintain the free flow of information between managers and employees, including:

- Communication meetings for various levels of managers and employees.
- Periodic employee satisfaction surveys, with follow-up actions based on the survey findings.
- The employee portal, *myTSMC*, an internal website featuring the Chairman's talk, corporate messages, executive interviews, and other activities of interest to employees.
- *eSilicon Garden*, a website hosting TSMC's internal electronic publications providing real-time updates on major activities of the Company, as well as inspirational content featuring outstanding teams and individuals.
- The whistleblower reporting system administered by the audit committee and the ombudsman system led by an appointed vice president – two distinct channels, each with strict confidentiality – to handle complaints regarding major management, financial, auditing, ethics and business conduct issues.
- The employee opinion box, which provides an opportunity for employees to submit suggestions or opinions regarding their work and the overall work environment.
- The Fab Caring Circle in each fab addresses the issues related to employees' work and personal life; the system is dedicated mainly to the Company's direct labor workers.



TSMC has many internal communication channels, a major reason why the relationship between management and employees has been harmonious these years. The Company respects the employees' right to form a labor union, however, no employees have pursued this avenue or issued a request to form one so far.

In 2017 and in 2018 as of the date of this annual report, there have been no losses resulting from labor disputes.

Employee Benefit Programs

- Convenient onsite services: cafeterias, laundry services, convenience stores, travel, banking, and commuting assistance are accessible for employees in the fabs.
- Comprehensive health enhancement and management programs: health enhancement programs include weight control, in-fab clinic and dentist services, smoking cessation, massage service, cancer screening activity, blood donation, as well as monthly seminars to raise personal health awareness. Health management programs include post health-exam follow-up activities for abnormal cases, prevention of cerebrovascular disease, ergonomic hazards management, and maternal care and protection. Employee assistance programs include five free annual counseling sessions for mental health and financial/legal issues, with extensions available depending on the individual's needs.
- Diverse employee welfare programs: including 78 hobby clubs, 70 speeches covering various topics, Sports Day, and Family Day. In addition, holiday bonuses, marriage bonuses, condolence allowances and emergency subsidies are also available to address employees' needs.
- Premium sports centers: a variety of workout facilities available to all employees and their families, as well as exercise sessions conducted by professional instructors to improve employee wellness.
- Flexible preschool service: childcare service, operated to meet employees' work schedules, is available in four fabs in Hsinchu, Taichung, and Tainan.

Employee Recognition

TSMC sponsors various internal award programs to recognize outstanding achievements by employees, both individual and at a team level. With these award programs, TSMC aims to encourage continued employee development, which, in turn, adds to the Company's competitive advantage.

TSMC's award programs include:

- TSMC Medal of Honor: recognizes those who contribute significantly to the Company's business performance.
- TSMC Academy: recognizes outstanding TSMC scientists and engineers whose individual technical capabilities make significant contributions to the Company.
- TSMC Excellent Labor Award: recognizes TSMC technicians and group leaders whose outstanding performances make significant contributions to the Company.
- Total Quality Excellence Award for each fab: recognize employees' continuous efforts in creating value for the Company.
- Service Award and TSMC's appreciation of senior employees: recognize senior employees' long-term commitment and dedication to the Company.
- Excellent Instructor Award: praises the outstanding performance and contribution of the Company's internal instructors in training courses for employees.
- Function-wide awards dedicated to innovation, such as the Idea Forum and TQE Awards, which recognize employees' initiative and continuous implementation of innovative practices.

Apart from corporate-wide awards, TSMC encourages and recommended employees to participate in external talent activities and competitions. In 2017, distinguished TSMC employees continued to be recognized through a host of national awards, including National Model Labor Award, Distinguished Engineers Award, Outstanding Young Engineer Award, and National Manager Excellence Award.

5.5.6 Retention

Employees' overall satisfaction with the Company's efforts are reflected in the 2016 TSMC Core Values Survey, which is held biennially in which 97% of participants agreed that they are willing to commit fully in their work to make TSMC an even more successful company; while 95% concurred with the statement that they are willing to contribute their talents to TSMC and grow together with the Company for the next five years.

In 2017, the Company recorded a manageable turnover rate of 4.2%. Although a bit lower than healthy employee outflow defined as 5% to 10%, the Company is still in continuous growth mode and the total number of new staff 3,600 accounts for 7.5% of all employees, making the organization stay energized.

5.5.7 Retirement Policy

TSMC's retirement policy is set according to Republic of China laws as well as to the local labor standards and labor pension practices of various respective regions. With the Company's sound financial system, TSMC ensures employees solid pension contributions and payments, which encourages employees to set long-term career plans and further deepens their commitment to TSMC.

5.6 Material Contracts

Research and Development Funding Agreement

Term of Agreement:

10/31/2012 - 12/31/2017

Contracting Party:

ASML Holding N.V. (ASML)

Summary:

TSMC shall provide EUR276 million to ASML's research and development programs from 2013 to 2017.

Note: TSMC is not currently party to any other material contract, other than contracts entered into in the ordinary course of our business. The Company's "Significant Contingent Liabilities and Unrecognized Commitments" are disclosed in Annual Report section (II), Financial Statements, page 71-72.



 **Employees**

Human capital is TSMC's most treasured asset. The Company provides jobs with challenging, meaningful work in a safe environment with excellent compensation and benefits. At the end of 2017, the Company employed more than 48,000 people.

Financial Highlights and Analysis

6.1 Financial Highlights

6.1.1 Condensed Balance Sheet

Condensed Balance Sheet from 2013 to 2017 (Consolidated) (Note 1)

Unit: NT\$ thousands

Item	2013	2014 (Adjusted)	2015	2016	2017
Current Assets	358,486,654	626,565,639	746,743,991	817,729,126	857,203,110
Long-term Investments (Note 2)	89,183,810	30,056,279	34,993,583	46,153,916	41,569,074
Property, Plant and Equipment	792,665,913	818,198,801	853,470,392	997,777,687	1,062,542,322
Intangible Assets	11,490,383	13,531,510	14,065,880	14,614,846	14,175,140
Other Assets (Note 3)	11,228,217	6,696,857	8,244,452	10,179,727	16,371,997
Total Assets	1,263,054,977	1,495,049,086	1,657,518,298	1,886,455,302	1,991,861,643
Current Liabilities					
Before Distribution	189,777,934	201,013,629	212,228,594	318,239,273	358,706,680
After Distribution	267,563,785	317,697,110	367,810,877	499,751,936	(Note 4)
Noncurrent Liabilities	225,501,958	247,707,125	222,655,225	178,164,903	110,395,320
Total Liabilities					
Before Distribution	415,279,892	448,720,754	434,883,819	496,404,176	469,102,000
After Distribution	493,065,743	565,404,235	590,466,102	677,916,839	(Note 4)
Equity Attributable to Shareholders of the Parent					
Capital Stock	259,286,171	259,296,624	259,303,805	259,303,805	259,303,805
Capital Surplus	55,858,626	55,989,922	56,300,215	56,272,304	56,309,536
Retained Earnings					
Before Distribution	518,193,152	705,165,274	894,293,586	1,072,008,169	1,233,362,010
After Distribution	440,407,301	588,481,793	738,711,303	890,495,506	(Note 4)
Others	14,170,306	25,749,291	11,774,113	1,663,983	(26,917,818)
Equity Attributable to Shareholders of the Parent					
Before Distribution	847,508,255	1,046,201,111	1,221,671,719	1,389,248,261	1,522,057,533
After Distribution	769,722,404	929,517,630	1,066,089,436	1,207,735,598	(Note 4)
Noncontrolling Interests	266,830	127,221	962,760	802,865	702,110
Total Equity					
Before Distribution	847,775,085	1,046,328,332	1,222,634,479	1,390,051,126	1,522,759,643
After Distribution	769,989,234	929,644,851	1,067,052,196	1,208,538,463	(Note 4)

Note 1: The financial statements for 2013 were prepared in accordance with 2010 Taiwan-IFRSs version, and the financial statements for 2014-2017 were prepared in accordance with 2013 Taiwan-IFRSs version. The financial statements of 2014 were adjusted to retrospectively apply newly effected GAAP. Adjustments included a decrease of NT\$84,759 thousand in total assets, a decrease of NT\$737,344 thousand in total liabilities before distribution and an increase of NT\$652,585 thousand in total equity before distribution.

Note 2: Long-term investments consist of noncurrent available-for-sale financial assets, held-to-maturity financial assets, financial assets carried at cost and investments accounted for using equity method.

Note 3: Other assets consist of deferred income tax assets, refundable deposits, and other noncurrent assets.

Note 4: Pending shareholders' approval.

Condensed Balance Sheet from 2013 to 2017 (Unconsolidated) (Note 1)

Unit: NT\$ thousands

Item	2013	2014 (Adjusted)	2015	2016	2017
Current Assets	257,623,763	370,949,497	426,913,080	443,781,164	436,769,337
Long-term Investments (Note 2)	165,545,159	242,395,596	326,330,737	397,290,976	464,401,415
Property, Plant and Equipment	770,443,494	796,684,361	831,784,912	979,401,337	1,016,355,970
Intangible Assets	7,069,456	8,996,810	9,391,418	10,047,991	9,870,127
Other Assets (Note 3)	7,897,131	3,935,389	5,265,368	6,816,676	11,992,542
Total Assets	1,208,579,003	1,422,961,653	1,599,685,515	1,837,338,144	1,939,389,391
Current Liabilities					
Before Distribution	187,195,744	178,261,092	194,299,278	308,177,214	308,383,240
After Distribution	264,981,595	294,944,573	349,881,561	489,689,877	(Note 4)
Noncurrent Liabilities	173,875,004	198,499,450	183,714,518	139,912,669	108,948,618
Total Liabilities					
Before Distribution	361,070,748	376,760,542	378,013,796	448,089,883	417,331,858
After Distribution	438,856,599	493,444,023	533,596,079	629,602,546	(Note 4)
Equity					
Capital Stock	259,286,171	259,296,624	259,303,805	259,303,805	259,303,805
Capital Surplus	55,858,626	55,989,922	56,300,215	56,272,304	56,309,536
Retained Earnings					
Before Distribution	518,193,152	705,165,274	894,293,586	1,072,008,169	1,233,362,010
After Distribution	440,407,301	588,481,793	738,711,303	890,495,506	(Note 4)
Others	14,170,306	25,749,291	11,774,113	1,663,983	(26,917,818)
Total Equity					
Before Distribution	847,508,255	1,046,201,111	1,221,671,719	1,389,248,261	1,522,057,533
After Distribution	769,722,404	929,517,630	1,066,089,436	1,207,735,598	(Note 4)

Note 1: The financial statements for 2013 were prepared in accordance with 2010 Taiwan-IFRSs version, and the financial statements for 2014-2017 were prepared in accordance with 2013 Taiwan-IFRSs version. The financial statements of 2014 were adjusted to retrospectively apply newly effected GAAP. Adjustments included a decrease of NT\$82,771 thousand in total assets, a decrease of NT\$735,381 thousand in total liabilities before distribution and an increase of NT\$652,610 thousand in total equity before distribution.

Note 2: Long-term investments consist of held-to-maturity financial assets, financial assets carried at cost and investments accounted for using equity method.

Note 3: Other assets consist of deferred income tax assets, refundable deposits, and other noncurrent assets.

Note 4: Pending shareholders' approval.

6.1.2 Condensed Statement of Comprehensive Income

Condensed Statement of Comprehensive Income from 2013 to 2017 (Consolidated) (Note 1)

Unit: NT\$ thousands (Except EPS: NT\$)

Item	2013	2014 (Adjusted)	2015	2016	2017
Net Revenue	597,024,197	762,806,465	843,497,368	947,938,344	977,447,241
Gross Profit	280,945,507	377,722,016	410,394,893	474,832,098	494,826,402
Income from Operations	209,429,363	295,870,309	320,047,775	377,957,778	385,559,223
Non-operating Income and Expenses	6,057,759	6,208,048	30,381,136	8,001,602	10,573,807
Income before Income Tax	215,487,122	302,078,357	350,428,911	385,959,380	396,133,030
Net Income	188,018,937	263,763,958	306,556,167	334,338,236	343,146,848
Other Comprehensive Income for the Year, Net of Income Tax	16,352,248	11,805,021	(14,714,182)	(11,067,189)	(28,821,631)
Total Comprehensive Income for the Year	204,371,185	275,568,979	291,841,985	323,271,047	314,325,217
Net Income (Loss) Attributable to:					
Shareholders of the Parent	188,146,790	263,881,771	306,573,837	334,247,180	343,111,476
Noncontrolling Interests	(127,853)	(117,813)	(17,670)	91,056	35,372
Total Comprehensive Income (Loss) Attributable to:					
Shareholders of the Parent	204,505,782	275,670,991	291,867,757	323,186,736	314,294,993
Noncontrolling Interests	(134,597)	(102,012)	(25,772)	84,311	30,224
Basic Earnings Per Share (Note 2)	7.26	10.18	11.82	12.89	13.23

Note 1: The financial statements for 2013 were prepared in accordance with 2010 Taiwan-IFRSs version, and the financial statements for 2014-2017 were prepared in accordance with 2013 Taiwan-IFRSs version. The financial statements of 2014 were adjusted to retrospectively apply newly effected GAAP. Adjustments included a decrease of NT\$12,359 thousand in gross profit, a decrease of NT\$19,984 thousand in income from operations, a decrease of NT\$16,911 thousand in net income and a decrease of NT\$46,054 thousand in total comprehensive income for the year.

Note 2: Based on weighted average shares outstanding in each year.

Condensed Statement of Comprehensive Income from 2013 to 2017 (Unconsolidated) (Note 1)

Unit: NT\$ thousands (Except EPS: NT\$)

Item	2013	2014 (Adjusted)	2015	2016	2017
Net Revenue	591,087,600	757,152,389	837,046,888	936,387,291	969,136,109
Gross Profit	271,644,860	366,899,120	397,708,840	461,808,296	478,937,691
Income from Operations	204,653,892	290,640,302	313,408,698	369,730,533	374,690,117
Non-operating Income and Expenses	11,062,658	10,363,515	36,579,970	15,458,427	18,626,059
Income before Income Tax	215,716,550	301,003,817	349,988,668	385,188,960	393,316,176
Net Income	188,146,790	263,881,771	306,573,837	334,247,180	343,111,476
Other Comprehensive Income for the Year, Net of Income Tax	16,358,992	11,789,220	(14,706,080)	(11,060,444)	(28,816,483)
Total Comprehensive Income for the Year	204,505,782	275,670,991	291,867,757	323,186,736	314,294,993
Basic Earnings Per Share (Note 2)	7.26	10.18	11.82	12.89	13.23

Note 1: The financial statements for 2013 were prepared in accordance with 2010 Taiwan-IFRSs version, and the financial statements for 2014-2017 were prepared in accordance with 2013 Taiwan-IFRSs version. The financial statements of 2014 were adjusted to retrospectively apply newly effected GAAP. Adjustments included a decrease of NT\$12,583 thousand in gross profit, a decrease of NT\$19,356 thousand in income from operations, a decrease of NT\$17,023 thousand in net income and a decrease of NT\$46,150 thousand in total comprehensive income for the year.

Note 2: Based on weighted average shares outstanding in each year.

6.1.3 Financial Analysis

Financial Analysis from 2013 to 2017 (Consolidated) (Note 1)

		2013	2014 (Adjusted)	2015	2016	2017	
Capital Structure Analysis	Debts Ratio (%)	32.88	30.01	26.24	26.31	23.55	
	Long-term Fund to Property, Plant and Equipment (%)	135.40	158.16	169.34	157.17	153.70	
Liquidity Analysis	Current Ratio (%)	188.90	311.70	351.86	256.95	238.97	
	Quick Ratio (%)	168.57	278.03	319.58	241.34	217.94	
	Times Interest Earned (Times)	82.41	94.34	110.84	117.74	119.95	
Operating Performance Analysis	Average Collection Turnover (Times)	9.11	8.12	8.37	8.78	7.74	
	Days Sales Outstanding	40.06	44.95	43.61	41.57	47.16	
	Average Inventory Turnover (Times)	8.39	7.42	6.49	8.18	7.88	
	Average Inventory Turnover Days	43.49	49.19	56.24	44.62	46.32	
	Average Payment Turnover (Times)	20.01	19.39	20.10	20.11	16.82	
	Property, Plant and Equipment Turnover (Times)	0.85	0.95	1.01	1.02	0.95	
Profitability Analysis	Total Assets Turnover (Times)	0.54	0.55	0.54	0.53	0.50	
	Return on Total Assets (%)	17.11	19.33	19.62	19.03	17.84	
	Return on Equity attributable to Shareholders of the Parent (%)	24.00	27.86	27.04	25.60	23.57	
	Operating Income to Paid-in Capital Ratio (%)	80.77	114.10	123.43	145.76	148.69	
	Pre-tax Income to Paid-in Capital Ratio (%)	83.11	116.50	135.14	148.84	152.77	
	Net Margin (%)	31.49	34.58	36.34	35.27	35.11	
	Basic Earnings Per Share (NT\$)	7.26	10.18	11.82	12.89	13.23	
	Diluted Earnings Per Share (NT\$)	7.26	10.18	11.82	12.89	13.23	
	Cash Flow	Cash Flow Ratio (%)	183.05	209.70	249.67	169.63	163.17
		Cash Flow Adequacy Ratio (%)	88.35	92.15	103.82	108.57	112.41
Cash Flow Reinvestment Ratio (%)		12.16	13.04	13.76	11.51	11.08	
Leverage	Operating Leverage	2.40	2.15	2.26	2.15	2.16	
	Financial Leverage	1.01	1.01	1.01	1.01	1.01	
Industry Specific Key Performance Indicator	Billing Utilization Rate (%) (Note 3)	91	97	93	92	91	
	Advanced Technologies (28-nanometer and below) Percentage of Wafer Sales (%)	30	42	48	54	58	
	Sales Growth (%)	17.82	27.77	10.58	12.38	3.11	
	Net Income Growth (%)	13.12	40.25	16.18	9.03	2.65	

There's no deviation of 2017 vs. 2016 over 20%.

Note 1: Before 2012, financial statements were prepared in accordance with R.O.C GAAP. The financial statements for 2012-2013 were prepared in accordance with 2010 Taiwan-IFRSs version, and the financial statements for 2014-2017 were prepared in accordance with 2013 Taiwan-IFRSs version.

Note 2: Capacity includes wafers committed by Vanguard and SSMC.

*Glossary

1. Capital Structure Analysis

- (1) Debt Ratio = Total Liabilities / Total Assets
- (2) Long-term Fund to Property, Plant and Equipment Ratio = (Shareholders' Equity + Noncurrent Liabilities) / Net Property, Plant and Equipment

2. Liquidity Analysis

- (1) Current Ratio = Current Assets / Current Liabilities
- (2) Quick Ratio = (Current Assets - Inventories - Prepaid Expenses) / Current Liabilities
- (3) Times Interest Earned = Earnings before Interest and Taxes / Interest Expenses

3. Operating Performance Analysis

- (1) Average Collection Turnover = Net Sales / Average Trade Receivables
- (2) Days Sales Outstanding = 365 / Average Collection Turnover
- (3) Average Inventory Turnover = Cost of Sales / Average Inventory
- (4) Average Inventory Turnover Days = 365 / Average Inventory Turnover
- (5) Average Payment Turnover = Cost of Sales / Average Trade Payables
- (6) Property, Plant and Equipment Turnover = Net Sales / Average Net Property, Plant and Equipment
- (7) Total Assets Turnover = Net Sales / Average Total Assets

4. Profitability Analysis

- (1) Return on Total Assets = (Net Income + Interest Expenses * (1 - Effective Tax Rate)) / Average Total Assets
- (2) Return on Equity Attributable to Shareholders of the Parent = Net Income Attributable to Shareholders of the Parent / Average Equity Attributable to Shareholders of the Parent
- (3) Operating Income to Paid-in Capital Ratio = Operating Income / Paid-in Capital
- (4) Pre-tax Income to Paid-in Capital Ratio = Income before Tax / Paid-in Capital
- (5) Net Margin = Net Income / Net Sales
- (6) Earnings Per Share = (Net Income Attributable to Shareholders of the Parent - Preferred Stock Dividend) / Weighted Average Number of Shares Outstanding

5. Cash Flow

- (1) Cash Flow Ratio = Net Cash Provided by Operating Activities / Current Liabilities
- (2) Cash Flow Adequacy Ratio = Five-year Sum of Cash from Operations / Five-year Sum of Capital Expenditures, Inventory Additions, and Cash Dividend
- (3) Cash Flow Reinvestment Ratio = (Cash Provided by Operating Activities - Cash Dividends) / (Gross Property, Plant and Equipment + Long-term Investments + Other Noncurrent Assets + Working Capital)

6. Leverage

- (1) Operating Leverage = (Net Sales - Variable Cost) / Income from Operations
- (2) Financial Leverage = Income from Operations / (Income from Operations - Interest Expenses)

Financial Analysis from 2013 to 2017 (Unconsolidated) (Note)

		2013	2014 (Adjusted)	2015	2016	2017
Capital Structure Analysis	Debt Ratio (%)	29.88	26.48	23.63	24.39	21.52
	Long-term Fund to Property, Plant and Equipment Ratio (%)	132.57	156.24	168.96	156.13	160.48
Liquidity Analysis	Current Ratio (%)	137.62	208.09	219.72	144.00	141.63
	Quick Ratio (%)	118.35	171.82	186.00	128.65	118.68
	Times Interest Earned (Times)	104.10	120.82	144.41	146.73	144.04
Operating Performance Analysis	Average Collection Turnover (Times)	9.26	8.29	8.58	8.89	7.86
	Days Sales Outstanding	39.40	44.02	42.54	41.07	46.44
	Average Inventory Turnover (Times)	9.06	7.90	6.87	8.56	8.39
	Average Inventory Turnover Days	40.30	46.18	53.11	42.63	43.49
	Average Payment Turnover (Times)	18.55	18.64	19.73	19.04	16.39
	Property, Plant and Equipment Turnover (Times)	0.87	0.97	1.03	1.03	0.97
	Total Assets Turnover (Times)	0.55	0.58	0.55	0.54	0.51
Profitability Analysis	Return on Total Assets (%)	17.58	20.22	20.42	19.58	18.29
	Return on Equity (%)	24.00	27.86	27.04	25.60	23.57
	Operating Income to Paid-in Capital Ratio (%)	78.93	112.09	120.87	142.59	144.50
	Pre-tax Income to Paid-in Capital Ratio (%)	83.20	116.08	134.97	148.55	151.68
	Net Margin (%)	31.83	34.85	36.63	35.70	35.40
	Basic Earnings Per Share (NT\$)	7.26	10.18	11.82	12.89	13.23
	Diluted Earnings Per Share (NT\$)	7.26	10.18	11.82	12.89	13.23
Cash Flow	Cash Flow Ratio (%)	179.11	230.29	264.94	172.81	184.45
	Cash Flow Adequacy Ratio (%)	86.78	90.72	102.35	107.06	99.42
	Cash Flow Reinvestment Ratio (%)	12.32	13.30	13.85	11.74	10.98
Leverage	Operating Leverage	2.46	2.19	2.31	2.19	2.22
	Financial Leverage	1.01	1.01	1.01	1.01	1.01

There's no deviation of 2017 vs. 2016 over 20%.

Note: Before 2012, financial statements were prepared in accordance with R.O.C GAAP. The financial statements for 2012-2013 were prepared in accordance with 2010 Taiwan-IFRSs version, and the financial statements for 2014-2017 were prepared in accordance with 2013 Taiwan-IFRSs version.

*Glossary

1. Capital Structure Analysis

- (1) Debt Ratio = Total Liabilities / Total Assets
- (2) Long-term Fund to Fixed Assets Ratio = (Shareholders' Equity + Long-term Liabilities) / Net Fixed Assets

2. Liquidity Analysis

- (1) Current Ratio = Current Assets / Current Liabilities
- (2) Quick Ratio = (Current Assets - Inventories - Prepaid Expenses) / Current Liabilities
- (3) Times Interest Earned = Earnings before Interest and Taxes / Interest Expenses

3. Operating Performance Analysis

- (1) Average Collection Turnover = Net Sales / Average Trade Receivables
- (2) Days Sales Outstanding = 365 / Average Collection Turnover
- (3) Average Inventory Turnover = Cost of Sales / Average Inventory
- (4) Average Inventory Turnover Days = 365 / Average Inventory Turnover
- (5) Average Payment Turnover = Cost of Sales / Average Trade Payables
- (6) Fixed Assets Turnover = Net Sales / Average Net Fixed Assets
- (7) Total Assets Turnover = Net Sales / Average Total Assets

4. Profitability Analysis

- (1) Return on Total Assets = (Net Income + Interest Expenses * (1 - Effective Tax Rate)) / Average Total Assets
- (2) Return on Equity = Net Income / Average Shareholders' Equity
- (3) Operating Income to Paid-in Capital Ratio = Operating Income / Paid-in Capital
- (4) Pre-tax Income to Paid-in Capital Ratio = Income before Tax / Paid-in Capital
- (5) Net Margin = Net Income / Net Sales
- (6) Earnings Per Share = (Net Income - Preferred Stock Dividend) / Weighted Average Number of Shares Outstanding

5. Cash Flow

- (1) Cash Flow Ratio = Net Cash Provided by Operating Activities / Current Liabilities
- (2) Cash Flow Adequacy Ratio = Five-year Sum of Cash from Operations / Five-year Sum of Capital Expenditures, Inventory Additions, and Cash Dividend
- (3) Cash Flow Reinvestment Ratio = (Cash Provided by Operating Activities - Cash Dividends) / (Gross Fixed Assets + Long-term Investments + Other Assets + Working Capital)

6. Leverage

- (1) Operating Leverage = (Net Sales - Variable Cost) / Income from Operations
- (2) Financial Leverage = Income from Operations / (Income from Operations - Interest Expenses)

6.1.4 Auditors' Opinions from 2013 to 2017

Year	CPA	Audit Opinion
2013	Yih-Hsin Kao, Hung-Wen Huang	An Unqualified Opinion
2014	Yih-Hsin Kao, Hung-Wen Huang	An Unqualified Opinion
2015	Yih-Hsin Kao, Hung-Wen Huang	An Unqualified Opinion
2016	Yih-Hsin Kao, Yu-Feng Huang	An Unmodified Opinion (Note)
2017	Yih-Hsin Kao, Yu-Feng Huang	An Unmodified Opinion (Note)

Note: Starting in 2016, the new auditing standard of the Republic of China requires "An Unqualified Opinion" be replaced by "An Unmodified Opinion".

Deloitte & Touche
12F, No. 156, Sec. 3, Min-Sheng E. Rd., Taipei, Taiwan, R.O.C.
Tel: 886-2-2545-9988

6.1.5 Audit Committee's Review Report

The Board of Directors has prepared the Company's 2017 Business Report, Financial Statements, and proposal for allocation of earnings. The CPA firm of Deloitte & Touche was retained to audit TSMC's Financial Statements and has issued an audit report relating to the Financial Statements. The Business Report, Financial Statements, and earnings allocation proposal have been reviewed and determined to be correct and accurate by the Audit Committee members of Taiwan Semiconductor Manufacturing Company Limited. According to relevant requirements of the Securities and Exchange Act and the Company Law, we hereby submit this report.

Taiwan Semiconductor Manufacturing Company Limited

Chairman of the Audit Committee: Sir Peter Leahy Bonfield



February 13, 2018

6.1.6 Financial Difficulties

The Company should disclose the financial impact to the Company if the Company and its affiliated companies have incurred any financial or cash flow difficulties in 2017 and as of the date of this Annual Report: None.

6.1.7 Consolidated Financial Statements and Independent Auditors' Report along with Parent Company Only Financial Statements and Independent Auditors' Report

Please refer to Annual Report section (II), Financial Statements.

6.2 Financial Status and Operating Results

6.2.1 Financial Status

Consolidated

Unit: NT\$ thousands

Item	2017	2016	Difference	%
Current Assets	857,203,110	817,729,126	39,473,984	5%
Long-term Investments (Note 1)	41,569,074	46,153,916	(4,584,842)	-10%
Property, Plant and Equipment	1,062,542,322	997,777,687	64,764,635	6%
Intangible Assets	14,175,140	14,614,846	(439,706)	-3%
Other Assets (Note 2)	16,371,997	10,179,727	6,192,270	61%
Total Assets	1,991,861,643	1,886,455,302	105,406,341	6%
Current Liabilities	358,706,680	318,239,273	40,467,407	13%
Noncurrent Liabilities	110,395,320	178,164,903	(67,769,583)	-38%
Total Liabilities	469,102,000	496,404,176	(27,302,176)	-5%
Capital Stock	259,303,805	259,303,805	0	0%
Capital Surplus	56,309,536	56,272,304	37,232	0%
Retained Earnings	1,233,362,010	1,072,008,169	161,353,841	15%
Others	(26,917,818)	1,663,983	(28,581,801)	-1,718%
Equity Attributable to Shareholders of the Parent	1,522,057,533	1,389,248,261	132,809,272	10%
Total Equity	1,522,759,643	1,390,051,126	132,708,517	10%

Note 1: Long-term investments consist of noncurrent available-for-sale financial assets, held-to-maturity financial assets, financial assets carried at 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 other assets: The increase was mainly due to increase in deferred income tax assets and refundable deposits.

Decrease in noncurrent liabilities: The decrease was mainly due to reclassification of bonds payable due in 1 year to current liabilities and decrease in guarantee deposits.

Decrease in other equity: The decrease was mainly due to increase in currency exchange loss arising from translation of foreign operations in 2017.

• 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	2017	2016	Difference	%
Current Assets	436,769,337	443,781,164	(7,011,827)	-2%
Long-term Investments (Note 1)	464,401,415	397,290,976	67,110,439	17%
Property, Plant and Equipment	1,016,355,970	979,401,337	36,954,633	4%
Intangible Assets	9,870,127	10,047,991	(177,864)	-2%
Other Assets (Note 2)	11,992,542	6,816,676	5,175,866	76%
Total Assets	1,939,389,391	1,837,338,144	102,051,247	6%
Current Liabilities	308,383,240	308,177,214	206,026	0%
Noncurrent Liabilities	108,948,618	139,912,669	(30,964,051)	-22%
Total Liabilities	417,331,858	448,089,883	(30,758,025)	-7%
Capital Stock	259,303,805	259,303,805	0	0%
Capital Surplus	56,309,536	56,272,304	37,232	0%
Retained Earnings	1,233,362,010	1,072,008,169	161,353,841	15%
Others	(26,917,818)	1,663,983	(28,581,801)	-1,718%
Total Equity	1,522,057,533	1,389,248,261	132,809,272	10%

Note 1: Long-term investments consist of held-to-maturity financial assets, financial assets carried at 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 other assets: The increase was mainly due to increase in deferred income tax assets and refundable deposits.

Decrease in noncurrent liabilities: The decrease was mainly due to reclassification of bonds payable due in 1 year to current liabilities and decrease in guarantee deposits.

Decrease in other equity: The decrease was mainly due to increase in currency exchange loss arising from translation of foreign operations in 2017.

• Major Impact on Financial Position

The above deviations had no major impact on TSMC's financial position.

• Future Plan on Financial Position: Not applicable.

6.2.2 Financial Performance

Consolidated

Unit: NT\$ thousands

Item	2017	2016	Difference	%
Net Revenue	977,447,241	947,938,344	29,508,897	3%
Cost of Revenue	482,616,286	473,077,173	9,539,113	2%
Gross Profit before Unrealized Gross Profit on Sales to Associates	494,830,955	474,861,171	19,969,784	4%
Unrealized Gross Profit on Sales to Associates	(4,553)	(29,073)	24,520	-84%
Gross Profit	494,826,402	474,832,098	19,994,304	4%
Operating Expenses	107,901,668	96,904,133	10,997,535	11%
Other Operating Income and Expenses, Net	(1,365,511)	29,813	(1,395,324)	-4,680%
Income from Operations	385,559,223	377,957,778	7,601,445	2%
Non-operating Income and Expenses	10,573,807	8,001,602	2,572,205	32%
Income before Income Tax	396,133,030	385,959,380	10,173,650	3%
Income Tax Expenses	52,986,182	51,621,144	1,365,038	3%
Net Income	343,146,848	334,338,236	8,808,612	3%
Other Comprehensive Loss, Net of Income Tax	(28,821,631)	(11,067,189)	(17,754,442)	-160%
Total Comprehensive Income for the Year	314,325,217	323,271,047	(8,945,830)	-3%
Total Net Income Attributable to Shareholders of the Parent	343,111,476	334,247,180	8,864,296	3%
Total Comprehensive Income Attributable to Shareholders of the Parent	314,294,993	323,186,736	(8,891,743)	-3%

• Analysis of Deviation over 20%

Decrease in unrealized gross profit on sales to associates: The decrease was mainly due to lower sales to associates in the fourth quarter of 2017.

Decrease in other operating income and expenses, net: The decrease was mainly due to higher net loss on disposal of property, plant and equipment in 2017.

Increase in non-operating income and expenses: The increase was mainly due to higher interest income in 2017.

Increase in other comprehensive loss, net of income tax: The increase was mainly due to increase in currency exchange loss arising from translation of foreign operations in 2017.

• Sales Volume Forecast and Related Information

For additional details, please refer to "1. Letter to Shareholders" on page 4-7 of this Annual Report.

• 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	2017	2016	Difference	%
Net Revenue	969,136,109	936,387,291	32,748,818	3%
Cost of Revenue	490,196,856	474,552,913	15,643,943	3%
Gross Profit before Unrealized Gross Profit on Sales to Subsidiaries and Associates	478,939,253	461,834,378	17,104,875	4%
Unrealized Gross Profit on Sales to Subsidiaries and Associates	(1,562)	(26,082)	24,520	-94%
Gross Profit	478,937,691	461,808,296	17,129,395	4%
Operating Expenses	102,985,909	92,161,728	10,824,181	12%
Other Operating Income and Expenses, Net	(1,261,665)	83,965	(1,345,630)	-1,603%
Income from Operations	374,690,117	369,730,533	4,959,584	1%
Non-operating Income and Expenses	18,626,059	15,458,427	3,167,632	20%
Income before Income Tax	393,316,176	385,188,960	8,127,216	2%
Income Tax Expenses	50,204,700	50,941,780	(737,080)	-1%
Net Income	343,111,476	334,247,180	8,864,296	3%
Other Comprehensive Loss, Net of Income Tax	(28,816,483)	(11,060,444)	(17,756,039)	-161%
Total Comprehensive Income for the Year	314,294,993	323,186,736	(8,891,743)	-3%

• Analysis of Deviation over 20%

Decrease in unrealized gross profit on sales to subsidiaries and associates: The decrease was mainly due to lower sales to subsidiaries and associates in the fourth quarter of 2017.

Decrease in other operating income and expenses, net: The decrease was mainly due to higher net loss on disposal of property, plant and equipment in 2017.

Increase in non-operating income and expenses: The increase was mainly due to higher share of profits of subsidiaries and associates in 2017.

Increase in other comprehensive loss, net of income tax: The increase was mainly due to increase in currency exchange loss arising from translation of foreign operations in 2017.

• Sales Volume Forecast and Related Information

For additional details, please refer to "1. Letter to Shareholders" on page 4-7 of this Annual Report.

• Major Impact on Financial Performance

The above deviations had no major impact on TSMC's financial performance.

• Future Plan on Financial Performance: Not applicable.

6.2.3 Cash Flow

Consolidated

Unit: NT\$ thousands

Cash Balance 12/31/2016	Net Cash Provided by Operating Activities in 2017	Net Cash Used in Investing and Financing Activities in 2017	Cash Balance 12/31/2017	Remedy for Liquidity Shortfall	
				Investment Plan	Financing Plan
541,253,833	585,318,167	(573,180,304)	553,391,696	None	None

• Analysis of Cash Flow

NT\$585.3 billion net cash generated by operating activities: mainly from net income and depreciation and amortization expenses. NT\$336.2 billion net cash used in investing activities: primarily for capital expenditures and net purchase of marketable financial instruments.

NT\$237.0 billion net cash used in financing activities: primarily for cash dividend payment and repayment of corporate bonds.

- **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 12/31/2016	Net Cash Provided by Operating Activities in 2017	Net Cash Used in Investing and Financing Activities in 2017	Cash Balance 12/31/2017	Remedy for Liquidity Shortfall	
				Investment Plan	Financing Plan
249,878,563	568,800,331	(579,502,053)	239,176,841	None	None

• Analysis of Cash Flow

NT\$568.8 billion net cash generated by operating activities: mainly from net income and depreciation and amortization expenses. NT\$285.3 billion net cash used in investing activities: primarily for capital expenditures.

NT\$294.2 billion net cash used in financing activities: primarily for cash dividend payment, capital injection in subsidiaries and repayment of corporate bonds.

- **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.

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

Unit: NT\$ thousands

Plan	Actual or Planned Source of Capital	Total Amount for 2017 and 2016	Actual Use of Capital	
			2017	2016
Production Facilities, R&D and Production Equipment	Cash flow generated from operations	652,789,502	327,317,670	325,471,832
Others	Cash flow generated from operations	5,843,956	3,270,518	2,573,438
Total		658,633,458	330,588,188	328,045,270

Based on capital expenditures listed above, TSMC's annual production capacity increased by approximately 1 million 12-inch equivalent wafers in 2017.

6.2.5 Long-term Investment Policy and Results

TSMC's long-term investments, accounted for under the equity method, were all made for strategic purposes. However, when an investment is no longer of strategic value, it may be considered a financial investment. In 2017, the investment gains from these investments amounted to NT\$2,985,941 thousand on a consolidated basis, decreasing from previous year mainly due to a significant appreciation in NT dollar and a decline in ASP. For future investments, TSMC will continue to focus on strategic purposes through prudent assessments.

6.3 Risk Management

The Board of Directors plays a key role in helping the Company identify and manage economic risks. The risk management organization periodically briefs the audit committee on the ever-changing risk environment facing TSMC, the focus of the Company's enterprise risk management, and risk assessment and mitigation efforts. The audit committee's chairperson also reports on the risk environment and risk mitigation actions to be taken.

TSMC and its subsidiaries are committed to proactively and cost effectively integrating and managing strategic, operational, financial and hazardous risks together with potential consequences to operations and financial results. TSMC operates an enterprise risk management (ERM) program based on both its corporate vision and its long-term sustainability, as well as on its responsibility to both industry and society. ERM seeks to provide the appropriate management of risks by TSMC on behalf of all stakeholders. A risk map that considers likelihood and impact severity is used to identify and prioritize corporate risks. Various risk treatment strategies are also adopted in response corporate risks as they are identified.

Scope of Risk Management

Strategic Perspective

- Regulatory change & compliance
- Government policies
- Changes in technology & industry
- Technology development & competition
- Demand & capacity Expansion

Operational Perspective

- Sales & purchase concentration
- Intellectual property rights
- Recruiting qualified personnel
- Corporate image

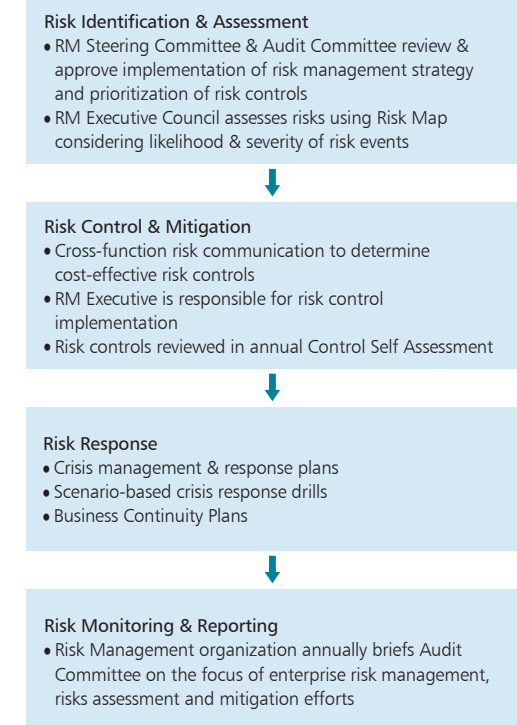
Financial Perspective

- Interest rate, foreign exchange, inflation & deflation, Taxation
- External financing
- High-risk/high-leveraged investment, financial derivative transactions
- Strategic investments

Hazardous Events

- Earthquake & natural hazards
- Fire or chemical spill
- Climate change

Enterprise Risk Management Framework



To mitigate the operational impacts of crisis events, ERM conducts pre-crisis risk assessment and identifies feasible strategies for crisis prevention. Corresponding to different scenarios, response procedures and recovery plans have been compiled. For specific severe crisis events involving multiple TSMC's manufacturing sites, the cross-functional central crisis command center composed of operations and support functions is responsible for internal coordination to speed up response time and proactively communicate with related stakeholders. To raise risk awareness and strengthen the risk management culture in TSMC, top management completed a series of crisis management workshops and a drill for operation

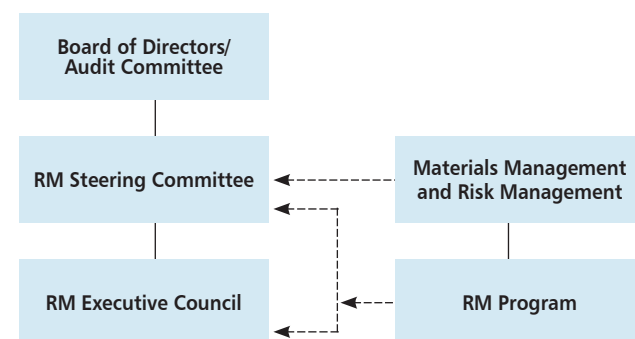
of Central Crisis Command Center with Co-CEOs' oversight in 2017. The scenario-based crisis response drills were also conducted for critical risk events such as fire, earthquake, IT service disruption, supply chain disruption, environmental events and utility supply disruption. In order to continuously mitigate corporate risks, drills are used to test the integrity and risk-control effectiveness of ERM.

To reduce supply chain risks, TSMC created a cross-functional taskforce comprised of members from fab operations, material management, risk management and quality system management to work with suppliers to develop business continuity plans and enhance supply chain resilience to effectively manage the risks faced by its suppliers. Partly as a result of these efforts, there was no interruption in TSMC's supply chain in 2017.

As TSMC continued to expand production capacity with advanced technology, seismic protection engineering design, risk treatment practices and green factory projects were initiated and implemented, beginning in the design phase for all new fabs.

6.3.1 Risk Management (RM) Organization Chart

TSMC's Risk Management organization annually briefs the Audit Committee on the focus of enterprise risk management, risk assessment and mitigation efforts. The Audit Committee's Chairperson also briefs the Board on such discussion and actions.



Organization Functions

•RM steering committee

Consists of functional heads (with internal audit head sitting as an observer);
Reports to audit committee;
Reviews risk control progress;
Identifies and approves the prioritized risk lists.

•RM executive council

Consists of representatives from each function;
Identifies and assesses risks;
Implements risk control programs and ensures effectiveness;
Improves transparency and how risks are managed.

•RM program

Coordinates and facilitates functional risk management activities;
Initiates cross-functional communication for risk mitigation;
Consolidates ERM reports into the RM steering committee.

6.3.2 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 order levels from customers may result in volatility in the Company's revenue and earnings.

From time to time, the electronics and semiconductor industries have experienced significant, occasionally prolonged periods of downturns and overcapacity. Because TSMC is, and will continue to be, dependent on the requirements of electronics and semiconductor companies for our 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 cannot take appropriate actions such as reducing its costs to sufficiently offset declines in demand, the Company's revenue, margin, 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 on manufacturing products with more functions. We also compete by developing new derivative technologies. If TSMC does not anticipate these changes in technologies and rapidly develop new and innovative technologies, or if the Company's competitors unforeseeably gain sudden access to additional technologies, TSMC may not be able to provide foundry services on competitive terms. 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 mobile devices, and increasing concentration of customers and competition (all further discussed among these risk factors). If TSMC is unable to innovate new technologies that meet the demands of its customers or overcome the above factors, its revenue may decline significantly. Although TSMC has concentrated on maintaining a competitive edge in research and development, if TSMC fails to achieve advances in technologies or processes, it may become less competitive.

Regarding the response measures for the above-mentioned risks, please refer to "2.2.4 TSMC Position, Differentiation and Strategy" on page 14-15 of this annual report.

Risks Associated with Decrease in Demand and Average Selling Price

A vast majority of the Company's revenue is derived from customers who use our services in communication devices, personal computers, consumer electronics products and industrial/standard products. The demand for our products are significantly affected by the outlook of the major and emerging end markets for our products, such as mobile devices, high-performance computing (including cryptocurrency mining), automotive electronics and the Internet of things ("IoT"). 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's 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 the Company owns most of its manufacturing capacities, a significant portion of TSMC's operating costs is fixed. In general, these costs do not decline when customer demand or TSMC's capacity utilization rates drop, and thus declines in customer demand, among other factors, may significantly decrease TSMC's margins. Conversely, as product demand rises and factory utilization increases, the fixed costs are spread over increased output, which can improve TSMC's margins. In addition, the historical and current 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. If the ASP of end use applications continues decreasing, the pricing pressure on components produced by the Company may lead to a reduction of TSMC's revenue, margin and earnings.

Risks Associated with Competition

The markets for TSMC's foundry services are highly competitive. 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 technologies than TSMC. Other companies may have greater financial and other resources than TSMC, such as the possibility of receiving direct or indirect government subsidy, economic stimulus funds, or other incentives that may be unavailable to TSMC. For example, Chinese companies are expected to be key players for new semiconductor fab development and fab equipment spending through 2020. There are over twenty new semiconductor fab projects that have been announced or are being developed within China in part due to various incentives provided by the Chinese government.

Furthermore, the Company's competitors may, from time to time, also decide to undertake aggressive pricing initiatives in one or several technology nodes. These competitive activities may decrease TSMC's customer base, or its ASP, or both. If TSMC is unable to compete effectively with these new and aggressive competitors on technology, manufacturing capacity, and customer satisfaction, it risks losing customers to these new 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 2017 and as of February 28, 2018, the following changes or developments in governmental policies and regulations may influence the Company's business operations:

Effective from 2018, the R.O.C. Income Tax Law was amended, which abolished the imputation system, raised the corporate income tax rate from 17% to 20%, and reduced the rate of surtax imposed on unappropriated earnings from 10% to 5%. However, since we are still eligible for a five-year tax exemption for capital investments made in previous years, we do not expect the R.O.C. tax amendment to have a significant impact on our effective tax rate for 2018.

To comply with the Labor Standards Act amended on December 21, 2016, TSMC made certain changes to its relevant internal rules, including adjusting overtime pay for work on days of rest as well as increasing employees' annual leave entitlements. These changes increase the operating costs of the Company. Such increase of costs, however, can

be mitigated in 2018 due to the re-amendment of the Labor Standards Act released on January 31, 2018, which readjusted the calculation formula for overtime pay for work on days of rest.

With respect to environmental laws, the changes include (1) In order to enforce the new law of "Greenhouse Gas Reduction and Management Act" in response to climate change, the "Regulations for Periodic Regulatory Goals and Approaches of the Greenhouse Gas Emissions" was released in March 2017 to stipulate the national goals and schedules of greenhouse gas reduction. TSMC has taken various measures to mitigate possible impacts on future operational expansion plans; (2) The "Collection Rate for Stationary Pollution Source Air Pollutant Emissions Fees" and "Emergency Control Regulation for Dealing with Serious Deterioration of Air Quality" were adopted in May and June 2017 which create a new fee type, called the "seasonal" air pollution control fee, and further authorize local governments to set up local control plans in their regions respectively, both of which would increase the Company's operational costs; and (3) In June 2017, the regulation "Guidelines for Defining the Enterprise's Due Care Obligations When Commissioning the Clearance and Disposal of its Industrial Waste" was newly adopted to reflect the new requirement under "Waste Disposal Act" amended at the same year, which provides guidance on what enterprises shall do to monitor the commissioned personnel with due care if it outsources the disposal of its industrial waste. TSMC will amend the relevant internal procedures and agreements with the commissioning entities to enhance the selections and audits of the outsourcing contractual vendors in compliance with the law requirements. In addition, some other environmental laws were proposed to be amended (such as "Environmental Impact Assessment Act" and "Air Pollution Control Act"), the exact effects of which are still uncertain as the amendments have not been finalized yet. However, we expect these amendments may affect our future expansion plans and increase the Company's operational costs.

Other than the above laws and regulations, it is not expected that other governmental policies or regulatory changes would materially impact TSMC's operations and financial condition.

6.3.3 Operational Risks

Risks Associated with Capacity Expansion

TSMC performs long-term market demand forecast for its products and services to manage its overall capacity. Because market conditions are dynamic, TSMC's market demand

forecast 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 subsequent demand increases rapidly in a short period of time, TSMC may not be able to restore the capacity in a timely manner to take advantage of the upturn.

According to the market demand forecast, TSMC has recently been adding capacity in its 300mm wafer fabs to meet market needs for its products and services. Expansion of the Company's capacity will increase its costs. For example, the Company will need to purchase additional equipment, hire additional personnel 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 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 will adjust its capacity plans in a timely manner to reduce the impact on its financial performance.

Risks Associated with Sales Concentration

Over the years, TSMC's customer profile and the nature of its customers' business have changed dramatically. While it generates revenue from hundreds of customers worldwide, TSMC's ten largest customers in 2015, 2016, and 2017 accounted for approximately 63%, 69% and 67% of its net revenue in the respective year. The Company's largest customer in 2015, 2016, and 2017 accounted for 16%, 17% and 22% of its net revenue in the respective year. The Company's second largest customer in 2015 and 2016 accounted for 16% and 11% of its net revenue in the respective year. In 2017, the Company's second largest customer accounted for less than 10% of its net revenue.

A more concentrated customer base will subject our revenue to seasonal demand fluctuations from our large customers, and cause different seasonal patterns of our business. This customer concentration results in part from the changing dynamics of the electronics industry with the structural shift to mobile devices and applications and software that provide the content for such devices. These are only a limited number of customers who are successfully exploiting this new business model paradigm.

Also, in order to respond to the new business model paradigm, TSMC has seen the changes of nature in its customers' business models. For example, there is a growing trend toward the rise of system houses that operate in a manner which makes their products and services more marketable in a changing consumer market. Also, since the global semiconductor industry is becoming 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 its customer pool. 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, a change in their designs, or change in their manufacturing sourcing policies or practices of these customers, or the timing of customer or distributor inventory adjustments, or change in its major customers' business models may adversely affect TSMC's results of operations and financial condition.

TSMC maintains a close watch on these trends and works closely with its customers to respond to these changes and to strengthen the Company's market position.

Risks Associated with Purchase Concentration

• Raw Materials

TSMC's production operations require that TSMC obtains 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. For example, the recent increase in silicon wafer prices due to increased demand for such wafers across the industry had a negative impact on TSMC's gross margin in 2017 and the trend is expected to continue in 2018. In addition, major natural disasters, political or economic turmoil 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-source suppliers, there is a risk that the need for such raw materials may not be met or that back-up supplies may not be readily available. TSMC's revenue and earnings could decline if the Company is 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 that the Company cannot pass on to its customers. To reduce the supply chain risk and to manage the cost actively, TSMC is committing resources toward developing new supply sources. In addition, the Company continually encourages its suppliers to reduce their supply chain risk by decentralizing production plants and to improve their cost competitiveness by moving their production facilities to Taiwan from higher-cost areas.

In the meantime, aware of the risk posed by fewer back-up suppliers, TSMC is engaging early and extensively with primary suppliers on managing quality and capacity issues in order to be prepared for any unexpected need to ramp up production, which could leave the Company with insufficient time to re-tune its production process. For leading technology nodes, TSMC uses world-class processes at world-class facilities but also requires world-class material quality. To streamline supply chain risk management, the Company intensifies supplier site audits and meetings to extend supply chain best practices to its upstream suppliers. Moreover, TSMC continually refines its planning system and enhances demand forecast alignments with critical suppliers for more accurate supply capacity planning, especially for the steep production ramp-up of new nodes. The Company has developed a supply chain risk assessment for critical suppliers that fulfills requirements on labor and ethics, ESH (Environmental, Safety and Health) and BCP (Business Continuity Plan). To ultimately empower these suppliers to take responsibility for their supply chain, on-site audits are conducted regularly. Any regulatory violations or any adverse environmental impact event, as well as a failure to meet TSMC's expectations in sustainability requirements, may result in business reduction or termination.

• Equipment

The Company's operations and ongoing expansion plans depend on its ability to obtain an appropriate amount of equipment and related services from a limited number of suppliers in a market that is characterized from time to time by limited supply and long delivery cycles. During such times, supplier-specific or industry-wide lead times for delivery can be as long as six months or more. To better manage its supply chain, the Company has implemented various business models and risk management contingencies with suppliers to shorten the procurement lead time. Further, the growing complexities, especially in next-generation lithographic technologies, may delay the timely availability of the equipment and parts needed to exploit time-sensitive business opportunities and also increase the market price for such equipment and parts.

If TSMC is unable to obtain equipment in a timely manner to fulfill its customers' demands on technology and production capacity, or 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 we actively enforce and protect our 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 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, TSMC may have 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 TSMC 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.

TSMC has received, from time-to-time, communications from third parties asserting that TSMC's technologies, 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, the Company may continue to receive such communications in the future. These assertions have at times resulted in litigation. Recently, there has been a notable increase within the industry in the number of assertions made and lawsuits initiated by certain litigious, non-practicing entities and these litigious, non-practicing entities are also becoming more aggressive in their monetary demands and requests for court-issued injunctions. Such lawsuits or assertions may increase TSMC's cost of doing business and may potentially be extremely disruptive if these non-practicing entities succeed in blocking the trade of

products and services offered by TSMC. Also, as the Company expended its manufacturing operations into certain non-R.O.C. jurisdictions, we have faced increasing challenges to manage 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 TSMC 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.

TSMC has taken related measures to minimize potential loss of shareholder value arising from intellectual property claims and litigation filed against the Company. These measures include: strategically obtaining licenses from certain semiconductor and other technology companies as needed; timely securing intellectual property rights 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, TSMC 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, TSMC could incur significant costs in the defense thereof or could suffer adverse effects on its operations.

Currently, TSMC's material legal proceedings are as follows:

In May 2017, Uri Cohen filed a complaint in the U.S. District Court for the Eastern District of Texas alleging that TSMC, TSMC North America and other companies infringe four

U.S. patents. Cohen's case has been transferred to and consolidated with the responsive declaratory judgment case for non-infringement of Cohen's asserted patents filed by TSMC and TSMC North America in the U.S. District Court for the Northern District of California. The outcome cannot be determined and the Company cannot make a reliable estimate of the contingent liability at this time.

On September 28, 2017, TSMC was contacted by the European Commission (the "Commission"), which has asked us for information and documents concerning alleged anti-competitive practices in relation to semiconductor sales. We are cooperating with the Commission to provide the requested information and documents. In light of the fact that this proceeding is still in its preliminary stage, it is premature to predict how the case will proceed, the outcome of the proceeding or its impact.

Other than the matters 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

During 2017 and in 2018 as of the date of this annual report, there were no such risks for TSMC.

Risks Associated with Recruiting Qualified Personnel

The Company relies on the continued services and contributions of its executive officers and skilled technical and other personnel. TSMC's business could suffer if we lose, for whatever reasons, the services and contributions of some of these personnel and we cannot adequately replace them. TSMC may be required to increase or reduce the number of employees in connection with business expansion or contraction, in accordance with market demand for the Company's products and services. Since there is intense competition for the recruitment of these personnel, it cannot ensure that TSMC will be able to fulfill its personnel requirements in a timely manner.

Future R&D Plans and Expected R&D Spending

For additional details, please refer to "5.2.7 Future R&D Plans" on page 79-80 of this annual report.

Changes in Corporate Reputation and Impact on Company's Crisis Management

TSMC has established an excellent corporate reputation around the world based on its core values of integrity, commitment,

innovation and customer trust, as well as its outstanding operations, rigorous corporate governance, and dedication to social responsibility by serving as a good corporate citizen and continuing to pursue innovation in the economic, environmental and social dimensions of CSR.

In 2017, TSMC was honored with awards and recognition for achievements in operations, corporate governance, innovation, profit growth, investor relations, environmental protection, corporate sustainability and other fields. These included: the Taiwan Institute for Sustainable Energy 2017 Taiwan Corporate Sustainability Awards No.1 for Domestic Corporates, Gold Medal For Sustainability Report, and Circular Economy Leadership Award; No.1 in the R.O.C. Ministry of Economic Affairs (MOEA) Intellectual Property Office ranking of "Top 100 Patent Applications"; ranked top 5% in the Taiwan Stock Exchange Corporate Governance Evaluation; ranked No.1 in profit for the China Credit Information Services' ranking of large Taiwan companies; The R.O.C. Ministry of Economic Affairs Industrial Development Bureau "Green Factory Label"; The R.O.C. Environmental Protection Administration "National Environmental Education Award"; and The MOEA award for Outstanding Greenhouse Gas Reduction, and Benchmark Company for Energy Conservation. In addition, TSMC was selected to *Corporate Knights Magazine's* 2018 Global 100 Most Sustainable Corporations in the World index for the first time, and was also selected as a component of the Dow Jones Sustainability Indices for the 17th consecutive year, further strengthening the Company's reputation.

As an important member of the technology industry, TSMC has always endeavored to act as a positive force in society. The Company maintains a Corporate Social Responsibility Committee, which serves as a decision-making center and communications platform for CSR. Committee members represent departments including legal, customer service, materials management, quality and reliability, research and development, risk management, finance, investor relations, operations, environment, safety and health (ESH), human resources, the TSMC Education and Culture Foundation, the TSMC Charity Foundation, and public relations to coordinate the Company's resources and collaborate to further enhance TSMC's positive corporate reputation.

To address crisis events that could affect the Company's public reputation, including earthquakes, fires and workplace accidents, TSMC employs numerous preventative measures and maintains a "TSMC Crisis Command Center Control Instruction"

and a "TSMC Emergency Response Procedure" to establish its emergency response command structure. Each TSMC fab holds regular monthly meetings of the ESH committee, and relevant departments hold regular drills as well as continuously improve their emergency response and notification procedures to ensure clear channels of communication to stakeholders in crisis management. The public relations department serves as the designated window for external communications. In the event of an emergency, all departments immediately deploy emergency response measures to reduce casualties and minimize the impact on the surrounding environment, Company property and manufacturing operations. Responders also alert the public relations department at the first stage of response to ensure clear and consistent disclosure regarding the situation to maintain the Company's reputation.

Risks Associated with Change in Management

In October 2017, Dr. Morris Chang, as TSMC Chairman for the last thirty years, announced his plan to retire from the Company immediately after the Annual Shareholders' Meeting in early June, 2018. All present directors of the board, except himself, have unanimously agreed to be nominated, and if elected, will serve as directors of the board during the next term. They all have agreed to have TSMC under the dual leadership of Dr. Mark Liu and Dr. C.C. Wei, who are TSMC's presidents and Co-CEOs currently. Dr. Liu will be the Chairman of the Board, and Dr. Wei will be the Chief Executive Officer.

6.3.4 Financial Risks

Economic Risks

• Interest Rate Fluctuation

TSMC is exposed to interest rate risks primarily related to its outstanding debt and investment portfolio, which are most sensitive to fluctuations in R.O.C. and U.S. interest rates. Changes in R.O.C. and U.S. interest rates affect the interest earned on the Company's cash, cash equivalents and marketable securities and the fair value of those securities, as well as interest paid on and the fair value of its outstanding debt.

As of December 31, 2017, all of TSMC's term debt have fixed interest rates and are measured at amortized cost. As such, changes in interest rate would not affect the future cash flows.

The primary objective of TSMC's investment policy is to achieve a return that will allow the Company to preserve principal and maintain liquidity requirements. TSMC generally

invests in investment grade fixed income securities and limits the amount of credit exposure to any one issuer. The Company's investments in both fixed- and floating-rated fixed income securities carry a degree of interest rate risk. A majority of the Company's fixed rate securities are classified as available-for-sale, and may have their market value adversely impacted due to the rise in interest rates.

TSMC has entered, and may enter in the future, into interest rate futures to partially hedge the interest rate risk on its fixed income investments. These hedges may offset only a small portion of the financial impact from movements in interest rates.

• Foreign Exchange Volatility

More than 90% of the Company's sales were denominated in US dollar and over one-half of TSMC's capital expenditures are denominated in currencies other than NT dollar, primarily in US dollar, Japanese yen and Euro. Because TSMC's functional currency is denominated in NT dollar, any significant fluctuation to its disadvantage in such exchange rates would have an adverse effect on TSMC's financial condition. For example, every 1 percent depreciation of the US dollar against the NT dollar would result in approximately 0.4 percentage point decrease in TSMC's operating margin based on TSMC's 2017 results.

Conversely, if the US 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 may use derivative, such as currency forward contracts and cross-currency swaps, and non-derivative financial instruments, such as foreign currency-denominated debt, to partially hedge its existing and certain forecasted currency exposure. These hedges will offset only a portion of, but do not eliminate, the financial impact from movements in foreign currency exchange rates.

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

• Inflation, Deflation and Resulting Market Volatility

The global economy is becoming more vulnerable to sudden unexpected fluctuations in inflationary and deflationary expectations and conditions. Expectations of high inflation and deflation each adversely affects the economy, at both macro and micro levels, by reducing economic efficiency and disrupting investment decisions. For example, recent implementation of "balance sheet normalization" program by the U.S. Federal Reserve and the possible changes in economic, fiscal and/or trade policies in the U.S. have exacerbated fluctuations in inflationary expectations. Such volatility may negatively affect the costs of TSMC's operations and the business operations of its customers who may be forced to plan their purchases of TSMC's goods and services within an uncertain economy. Therefore, the demand for TSMC's products and services could unexpectedly fluctuate severely in accordance with expectations of inflation or deflation as affected by market volatility.

Risks Associated with External Financing

In times of market instability, 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, TSMC may be forced to curtail its expansion, modify plans or delay the deployment of new or expanded services until it obtains such financing.

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

TSMC did not make high-risk or highly leveraged financial investments in 2017 nor up to the date of this annual report.

TSMC provided a guarantee to TSMC Global, a wholly-owned subsidiary of TSMC, for its issuance of US dollar-denominated senior unsecured corporate bonds in April 2013.

As of February 28, 2018, TSMC had intercompany loans of RMB\$4.4 billion arranged among the Company's subsidiaries, which were all in compliance with relevant rules and regulations.

In 2017, the financial transactions of a derivative nature that TSMC entered into were strictly for hedging and not for any trading or speculative purposes. For more information, please

refer to pages 33-34 of the annual report section (II), Financial Statements. The fair market value of TSMC's trading and available-for-sale financial securities is subject to prevailing market conditions and may fluctuate from TSMC's carrying value from time to time, which may impact the returns of those securities.

To control various types of financial transactions, the Company has established internal policies and procedures based on sound financial and business practices, all in compliance with the relevant rules and regulations issued by the Taiwan Securities and Futures Bureau. TSMC policies and procedures include "Policies and Procedures for Financial Derivative 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 investments, tangible 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 also required under Taiwan-IFRSs to evaluate goodwill for impairment at least on an annual basis or more frequently whenever triggering events or changes in circumstances indicate that goodwill may be impaired and the carrying value may not be recoverable. TSMC holds investments in certain publicly listed and private companies, some of which have incurred certain impairment charges as disclosed in Annual Report section (II), Financial Statements.

The determination of an impairment charge at any given time is based significantly on the projected results of the Company's 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.

TSMC has established the process and system to closely monitor and assess the risk of impairment charge. However, the management is unable to estimate the extent or timing of any impairment charge for future years, or whether such impairment charge may have a material adverse effect on the Company's net income.

6.3.5 Hazardous Risks

TSMC maintains a comprehensive risk management system dedicated to the safety of people, the conservation of natural resources, and the protection of property. In order to effectively handle emergencies and natural disasters, at each facility management has developed comprehensive plans and procedures that focus on risk prevention, emergency response, crisis management and business continuity. The Company has adopted local and international standards for environmental, safety and health management. All TSMC manufacturing fabs have been ISO 14001 certified (environmental management system), OHSAS 18001 certified (occupational health and safety management system), and QC 080000 certified (hazardous substance process management system). All manufacturing fabs in Taiwan have also been TOSHMS (Taiwan Occupational Safety and Health Management System) certified. The new fabs will also attain the above certifications within 18 months after acquiring factory registration certification.

The Company pays special attention to preparedness for emergencies or disasters, such as typhoons, floods, droughts caused by climate change, earthquakes, environmental contamination, large-scale product returns, service disruption of IT systems, strikes, pandemics (such as H1N1 influenza), and sudden, unexpected disruptions to the supply of raw materials, water, electricity and other public utilities. TSMC has established a company-wide taskforce dedicated to managing the risk of a water shortage that might arise due to climate change. This taskforce monitors the external supply and internal demand for water. Cross-company consolidations and external collaborations with public agencies are also ongoing in industrial parks to ensure and sustain a stable water supply.

TSMC has further strengthened its business continuity plans, which include periodic risk assessment, risk mitigation, and implementation through the establishment of emergency taskforces when necessary, combined with the preparation of a thorough analysis of the emergency, its impact, alternative actions, and solutions for each possible scenario together with appropriate precautionary and/or recovery measures. Each taskforce is given the responsibility of ensuring TSMC's ability to conduct business while minimizing personal injury, business disruption and financial impact under the circumstances. TSMC's business continuity plan is periodically reviewed according to results of test scenarios or practical implementation to ensure effective and successful continuation

of business activities. Customers are informed of TSMC's strong business continuity capability in order to establish resilience and flexibility in both their supply chain and insurance needs.

In response to the impact of the earthquake that occurred in southern Taiwan in February 2016, TSMC conducted a continuous improvement project, including enhancing earthquake emergency response, enhancing tool anchorage and seismic isolation facilities, preparedness for speeding up tool salvage and production recovery, and improved TSMC procedures with reference to ISO 22301 business continuity management.

TSMC and many of its suppliers use combustible 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 the Company maintains many overlapping risk prevention and protection systems, as well as fire and casualty insurance, TSMC's risk management and insurance coverage may not always be sufficient to cover all of the Company's 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 Company's manufacturing capacity and may lead to the loss of important sales and customers, thereby having a potentially adverse and material impact on TSMC's financial performance. In addition to periodic fire-protection inspections and firefighting drills, the Company has also carried out a corporate-wide fire risk mitigation project focused on managerial and hardware improvements.

6.3.6 Risks Associated with Non-Compliance with Environmental and Climate Related Laws and Regulations, and with Other International Laws, Regulations and Accords

Because TSMC engages in manufacturing activities in multiple jurisdictions and conducts business with 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 metals, chemicals and materials that are subject to environmental, climate-related, health and safety, and humanitarian 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 our 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 permits or third party private lawsuits, criminal or administrative proceedings;
- the temporary or permanent suspension of production of the affected products;
- unfavorable alterations in TSMC manufacturing, fabrication and assembly and test processes;
- challenges from 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 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.

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 equipments; (2) implement remedial programs such as climate change mitigation programs; (3) modify product designs and manufacturing processes, or incur other significant expenses such as obtaining substitute raw materials or chemicals that may cost more or be less available for our operations.

TSMC's inability to timely obtain approvals necessary for the conduct of our business could impair our 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 responding 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 controlled to improve competitiveness. Climate change has the potential to create legal, physical and other risks. TSMC's control measures are as follows:

• Climate Regulatory Risks

Greenhouse gas (GHG) control regulations and agreements in countries around the world are becoming increasingly stringent. Enterprises are legally required to regularly disclose GHG-related information as well as limit GHG emissions. Future legal requirements, such as carbon or energy taxes and carbon emission cap-and-trade may drive up production costs, including material and energy costs. TSMC China is subject to the Shanghai carbon emission cap-and-trade regulation, which has had a cost impacts in 2016 and 2017. TSMC continues to monitor legislative trends and communicate with various governments through industrial organizations and associations to set reasonable and feasible legal requirements.

• Conflict Minerals Risks

For additional details, please refer to the Supplier and Contractor Management section under "7.2.3 Safety and Health" on page 130-131 of this annual report.

• Climate Disaster Risks

Abnormal climate caused by the greenhouse effect has increased the frequency and severity of climate disasters – storms, floods, drought, and water shortages – causing considerable impacts on business operations and supply chains. TSMC believes that climate change control should take into account both mitigation and adaption, and this requires cooperation among government, society and industry to reduce risk. To sustain electricity and raw water supplies, therefore, in addition to water-saving measures the Company undertakes at its own facilities and those of upstream and downstream partners, TSMC participates in the Taiwan Science Park Industrial Union Experts Committee platform, and is actively involved in regular meetings with Taipower Company and the Taiwan Water Corporation to discuss supply and allocation issues and disaster responses.

• Other Climate Risks

Climate change is a concern to the global supply chain, necessitating energy conservation, carbon reduction, and disaster prevention. For example, The Responsible Business

Alliance (RBA) has also required members' suppliers to disclose GHG emissions information. TSMC not only discloses its own GHG emissions information each year, but it also assists and requires its major suppliers to establish a GHG inventory system and conduct reduction programs. TSMC insists that its major suppliers submit GHG emissions and reduction information as an important index of sustainability scoring in its procurement strategy.

To mitigate risks resulting from climate change, TSMC continues to actively carry out energy conservation measures, participate in voluntary emission reduction projects for perfluorinated compounds (PFCs), and conduct GHG inventory and verification on an annual basis. TSMC has publicly disclosed climate change information annually through the following channels:

- TSMC has disclosed GHG emissions and reduction-related information for evaluation by the Dow Jones Sustainability Index every year since 2001.
- TSMC's GHG-related information has been disclosed in its CSR report on the Company website annually since 2008. TSMC also provides information to customers and investors upon request.
- TSMC has participated in an annual survey conducted by the nonprofit Carbon Disclosure Project (CDP) since 2005. The survey includes GHG emission and reduction information for all TSMC fabs and subsidiaries.
- TSMC has followed the ISO 14064-1 standard to conduct a GHG inventory and acquire verification by an accrediting agency since 2006. TSMC also reports GHG inventory data to the Taiwan Environmental Protection Administration (EPA) and the Taiwan Semiconductor Industry Association (TSIA).

6.3.7 Other Risks

Potential Impact and Risks Associated with Sales of Significant Numbers of Shares by TSMC's Directors, and/or Major 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.

One or more of TSMC's existing shareholders may, from time to time, dispose of significant numbers of TSMC common shares or ADSs. For example, the National Development Fund

of Taiwan, R.O.C. which owned 6.38% of TSMC's outstanding shares as of February 28, 2018, has from time to time in the past sold TSMC shares in the form of ADSs in several transactions.

As of the date of this annual report, no shareholder owns 10% or more of TSMC's total outstanding shares.

Risks Associated with Cyber Attacks

Even though TSMC has established a comprehensive internet and computing security network, it cannot guarantee that the Company's computing systems which control or maintain vital corporate functions, such as its manufacturing operations and enterprise accounting, would be completely immune to crippling cyber attacks by any third party to gain unauthorized access to its internal network systems, to sabotage its operations and goodwill or otherwise. In the event of a serious cyber attack, TSMC's systems may lose important corporate data and its production lines may be shutdown indefinitely pending the resolution of such attack. While TSMC also seeks to annually review and assess its cybersecurity policies and procedures to ensure their adequacy and effectiveness, it cannot guarantee that the Company will not be susceptible to new and emerging risks and attacks in the evolving landscape of cybersecurity threats. These cyber attacks may also attempt to steal TSMC's trade secrets and other intellectual properties and other sensitive information, such as proprietary information of the Company's customers and other stakeholders and personal information of the Company's employees. Malicious hackers may also try to introduce computer viruses, corrupted software or ransomware into the Company's network systems to disrupt its operations, blackmail it for regaining control of its computing systems or spy 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 enhance the Company's cybersecurity network, and may also expose the Company to significant legal liabilities arising from or related to legal proceedings or regulatory investigations associated with, among other things, leakage of customer or third party information which TSMC has an obligation to keep confidential. During 2017 and as of the date of this Annual Report, the Company had not been aware of any material cyber attacks or incidents that had or would expected to have

a material adverse effect on its business and operations, nor had it been involved in any legal proceedings or regulatory investigations related thereof.

In addition, the Company employs certain third party service providers for TSMC and its affiliates worldwide with whom the Company needs to share highly sensitive and confidential information to enable them to provide the relevant services. Despite that TSMC requires the third party service providers to comply with the confidentiality and/or Internet security requirements in its service agreements with them, there is no assurance that each of them will strictly fulfill such obligations, or at all. The on-site network systems of and the off-site cloud computing networks such as servers maintained by such service provider and/or its contractors are also subject to risks associated with cyber attacks. If TSMC or its service providers are not able to timely resolve the respective technical difficulties caused by such cyber attacks, or ensure the integrity and availability of its data (and data belonging to its customers and other third parties) or 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 as a result.

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 14 of this annual report), any changes in the trade policies (such as the adoption of trade barriers) of such major economies can affect the sales of TSMC or its customers and thereby affect TSMC's operating results. Accordingly, 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.

Other Material Risks

During 2017 and in 2018 as of the date of this annual report, TSMC's management is not aware of any other risk event that could impart a potentially material impact on the financial status of the Company.



TSMC bears a mission of “uplifting society”, and diligently carries out the responsibilities of a good corporate citizen. In order to reinforce TSMC’s corporate social responsibilities and set a comprehensive mechanism for management, TSMC established the TSMC Charity Foundation in June 2017.



Corporate Social Responsibility

7.1 Overview

TSMC is the global leader in dedicated semiconductor foundry services. In addition to succeeding in its core businesses, TSMC also diligently strives to carry out the responsibilities of a good corporate citizen. By pursuing and maintaining active, positive relationships with employees, shareholders/investors, customers, suppliers, government and society, TSMC seeks to create a sustainable future for all stakeholders and embraces “uplifting society” as its main vision.

The Scope of Corporate Social Responsibility

Corporate Social Responsibility Policy is TSMC’s overall guiding principle for sustainable development. Following the Company vision of Uplifting Society, the three primary missions of TSMC are: Acting with Integrity, Strengthening Environmental Protection, and Caring for the Disadvantaged. The CSR matrix below, put forward by Chairman Dr. Morris Chang, clearly defines the scope of that responsibility. The horizontal axis shows the seven areas where TSMC aims to set a benchmark for sustainability: morality, business ethics, economy, rule of law, sustainability, work/life balance and happiness, and philanthropy. On the vertical axis are actions that TSMC has taken to fulfill its responsibilities.

TSMC CSR 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

CSR Management

The Corporate Social Responsibility Committee is comprised of representatives from each functional unit within the Company and is chaired by the CFO. The committee serves as a decision-making center and cross-departmental communication platform for TSMC’s corporate social responsibility. As the highest-level CSR group within TSMC, the committee sets the Company’s CSR strategies, targets and vision for material issues of the year and monitors the execution of budgets and performance by each department. The committee meets each quarter to discuss issues of interest to stakeholders, namely employees, shareholders/investors, customers, suppliers, government, society, and others. It also coordinates among all departments regarding the issues of economic, environmental and social sustainability and monitors the progress and effectiveness of CSR projects. In 2017 the CSR committee focused on the establishment of the TSMC Charity Foundation, the proposals and discussion of “TSMC i-Charity Platform,” and CSR communication enhancement.

Besides the regular meetings that are held quarterly, the chairperson of the CSR committee reports annually to the Board of Directors on implementation results for the year and the work plan for the upcoming year. The 2017 report focused on green manufacturing strategies and performance, fulfilling RBA Code of Conduct requirements with respect to supply chain management, setting targets to drive local procurement, and the achievements and highlights of TSMC Education and Culture Foundation, as well as TSMC Charity Foundation. The CSR plan for 2018 calls for TSMC to continue to align its sustainability targets with the United Nations Sustainability Development Goals (SDGs), expand its coverage of CSR management for TSMC’s overseas fabs and major affiliates, and execute social impact valuation projects.

Functions related to CSR at TSMC include legal, customer service, materials management, quality and reliability, research and development, risk management, finance, investor relations, operations, environment, health and safety, human resources, the TSMC Education and Culture Foundation, the TSMC Charity Foundation, and public relations. By adhering to the vision and mission of TSMC Corporate Social Responsibility Policy, the guiding principles of corporate social responsibility policy are conveyed promptly and effectively to all departments, and are systematically implemented in the Company’s daily operations.

Stakeholder Engagement

TSMC values the rights and concerns of all its stakeholders. In order to understand the level of stakeholder interest in sustainability issues, TSMC conducted three studies focused on identification, prioritization and validation with regard to these material issues. Multiple and systematic channels were established to communicate with stakeholders including a “Stakeholder Engagement” section on the corporate website, as well as a CSR mailbox, an important channel for TSMC to gather views from the public. Submissions were sent to relevant departments according to the nature and range of the issues involved, and the Company’s dedicated personnel gave timely responses. In 2017, the TSMC CSR mailbox received 124 submissions, including requests for visits, inquiries about daily operations, suggestions and complaints from the public, and requests for endorsement, donation and collaboration, as well as event invitations.

Stakeholders and Communication Channels in 2017

Stakeholders	Communication Channels
Employees	<ul style="list-style-type: none"> Corporate intranet, internal emails and other announcement channels (such as promotion posters at facilities) Human resources representatives Regular and ad-hoc communication meetings, such as manager development consulting committee, Operations engineer training committee, manufacturing department technical committee, etc. Employee voice channels, such as immediate response system, employee opinion box, wellness center, wellness website, each function’s PIP committee, employee PIP opinion dedicated line, etc. Ombudsman System Audit Committee Whistleblower System EWC event questionnaire survey
Shareholders/Investors	<ul style="list-style-type: none"> Annual shareholder meeting Quarterly earnings conference call Investor conferences and meetings Telephone and email responses to investors’ questions and feedback collection Annual reports, CSR reports, 20-F filings to US SEC, material announcements to Taiwan Stock Exchange, and corporate news on the Company’s website
Customers	<ul style="list-style-type: none"> Customer satisfaction survey Customer meetings Customer audits Email responses to the issues that customers are concerned about occasionally
Suppliers	<ul style="list-style-type: none"> Supplier meetings Supplier onsite audits Supply chain management forum Supply chain ESH forum Supplier ethics code awareness training
Government	<ul style="list-style-type: none"> Official correspondence Meetings (such as communication meetings, public hearings, forums or seminars) Communication with government authorities through industry organizations, including the Association of Science Park Industries, Taiwan Semiconductor Industry Association, World Semiconductor Council, and Chinese National Federation of Industries
Society	<ul style="list-style-type: none"> Arts events in the communities Sponsorship of youth development events Sponsorship of non-profit organizations to support educational projects Professorship endowments and student scholarships at universities Support of non-profit organizations and institutions via monetary and in-kind donation, as well as providing necessary manpower for a good cause Regular visits to National Museum of Science, Hsinchu Veterans Home, St. Teresa Children Center, Jacana Ecology Education Park, remote schools and TSMC ecological parks to provide volunteer services Annual volunteer activities in collaboration with TSMC fabs and divisions

TSMC believes that no enterprise can exist in a vacuum separate from society. By maintaining proactive communications and positive relationships with all stakeholders in economic, environmental and social dimensions, TSMC is laying the foundation of an enterprise built to last and creating sustainable value for the Company and society going forward.

Responsibilities of TSMC CSR Committee Members

Committee Members	Responsibilities	Stakeholders
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 Society (Note)
Customer Service	Customers Service and Satisfaction, Customer Trust, Customer Confidentiality, RBA and its Code of Conduct	Customers
Materials Management	Materials and Supply Chain Risk Management, Supplier Management, Conflict Minerals, RBA and its Code of Conduct	Suppliers
Quality and Reliability	Product Quality and Reliability, Product Recall Mechanism	Customers Suppliers
Research and Development	Innovation Management, Green Products	Employees Customers Suppliers
Risk Management	Risk Management, Crisis Management, Emergency Response and Action Plan	Employees Investors Customers Suppliers Government Society
Finance	Financial Disclosure, Dividend Policy, Tax Strategy	Employees Investors Customers Suppliers Government
Investor Relations	Resolving Issues of Stakeholder Concern, Establishing Trusting Long-term Relationships, Effective Two-way Communication, Annual Report Production	Investors
Operations	Operational Eco-efficiency, Pollution Prevention, Water Resource Risk Management, Green Manufacturing	Customers Investors Suppliers
Environment, Health, and Safety	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 Investors Customers Suppliers Government Society
Human Resources	Talent Attraction and Retention, Proprietary Information Protection, Employees' Physical and Mental Well-Being and Work-Life Balance, Labor-Management Relations and Employee Engagement, Labor Rights, Training and Development, Mobility, RBA and its Code of Conduct	Employees
TSMC Education and Culture Foundation, TSMC Charity Foundation	Philanthropy, Community Relations	Society
Public Relations	Stakeholder Engagement, Mechanism for Reflecting Issues of Social Concern, Media Relations	Society

Note: Society includes community, non-governmental organizations, non-profit organizations, and the public.

As the only semiconductor company chosen for the Dow Jones Sustainability World Indices over the past 17 consecutive years, TSMC is built on the cornerstone of integrity. TSMC believes that customer trust is enhanced if the Company follows the law and values corporate governance. Investors will be more willing to invest in the Company over the long term if the Company maintains solid financial performance and a sustainable dividend policy. Employees are TSMC's most important asset and they have made a reciprocal commitment to the Company to fulfill its core values. At TSMC's urging, suppliers – both upstream and downstream – have been devoting more resources to manufacturing processes and working together to build green factories and supply chains that are friendly to the environment. With the engagement of all stakeholders, TSMC combines the strengths that drive society forward, and hopes to build a better future together.

2017 CSR Awards and Recognitions

Category	Organization	Awards and Recognitions
Overall CSR	Dow Jones Sustainability Indices (DJSI)	<ul style="list-style-type: none"> Membership in the Dow Jones Sustainability World Index for the 17th consecutive year RobecoSAM Sustainability Award - Gold Class
	MSCI ESG Indexes	<ul style="list-style-type: none"> Selected as MSCI ESG Leaders Indexes component Selected as MSCI SRI Indexes component
	FTSE4Good Index	<ul style="list-style-type: none"> Selected as FTSE4Good Emerging Index component Selected as FTSE4Good TIP Taiwan ESG Index component
	FORTUNE	Selected as one of the World's Most Admired Companies
	Forbes	Selected as one of the Top Regarded Companies
	Institutional Investor Magazine	Selected as Most Honored Company (Technology/Semiconductor) - All-Asia
	Newsweek	Selected as Newsweek Green Rankings Top Green Companies in the World
	oekom research AG	Rated "Prime" by oekom Corporate Rating
	Corporate Knights	Selected as one of the Global 100 Most Sustainable Corporations
	Taiwan Institute of Sustainable Energy	<ul style="list-style-type: none"> The Most Prestigious Sustainability Awards - Top Ten Domestic Corporates Taiwan Top 50 Corporate Responsibility Report Awards - IT & IC Manufacturing Industry - Gold Class Circular Economy Leadership Award Chairman Dr. Morris Chang was honored with Sustainability Lifetime Achievement Award
	Cheers Magazine	Most Admired Company in Technology/Manufacturing Group for the New Generation
	Economy, Governance	Institutional Investor Magazine
IR Magazine		Global Top 50 ranking of the best investor relations programs
FORTUNE		Selected as member of Fortune Global 500
Forbes		<ul style="list-style-type: none"> Forbes Global 2000 Chairman Dr. Morris Chang was honored as one of The World's 100 Greatest Living Business Minds Selected as one of the Top Multinational Performers
Clarivate Analytics		Top 10 Global Innovators in Semiconductor Industry
The Bizz		Award for Business Excellence
Nikkei		Nikkei Asia 300 Indexes
Taiwan Stock Exchange		<ul style="list-style-type: none"> Ranked in top 5% in Corporate Governance Evaluation of Listed Companies for the 3rd consecutive year Selected as TWSE Corporate Governance 100 Index component
R.O.C. Ministry of Economic Affairs Intellectual Property Office		Ranked No.1 in Top 100 Invention Patent Filers in Taiwan
PricewaterhouseCoopers		<ul style="list-style-type: none"> Ranked No.1 in Taiwan by PricewaterhouseCoopers Global Innovation 1,000 Study Listed in Global Top 100 Companies by market capitalization
China Credit Information Service		Ranked No.1 in Profitability of large Taiwan Companies
CommonWealth Magazine		The company with the highest net profit in Top 2,000 Survey

(Continued)

Category	Organization	Awards and Recognitions
Environment, Safety and Health	U.S. Green Building Council Leadership in Energy and Environmental Design (LEED) certification	•“Gold” class certification - Fab 12 Phase 3 Manufacturing Facility and Office Building, Advanced Backend Fab 2
	R.O.C. Ministry of the Interior “Ecology, Energy Saving, Waste Reduction and Health (EEWH)” certification	•“Diamond” class certification - Fab 14 Phase 7 Manufacturing Facility •“Gold” class certification - Fab 12 Phase 7 Manufacturing Facility, Fab 14A
	R.O.C. Environmental Protection Administration	•Enterprise Green Procurement Award - Fab 2 and Fab 5, Fab 6, Fab 8, Fab 12A, Fab 14A, Fab 14B, Advanced Backend Fab 2 •Environmental Education Award - Fab 14A
	R.O.C. Ministry of Economic Affairs	•Excellence in Carbon Reduction Award - Fab 2 and Fab 5, Fab 6 •Excellence in Energy Conservation - Fab 14B •Green Factory Label - Fab 12A, Fab 14B
	Hsinchu Science Park Administration	•Water Conservation Award - Fab 2 and Fab 5, Fab 12 Phase 7 •Excellence in Labor Safety and Hygiene Award - Fab 2 and Fab 5, Fab 12A, Fab 12 Phase 6 •Excellence in Waste Reduction and Resource Recycling Award - Fab 2 and Fab 5 •Excellence in Environmental Education Partner Award - Fab 2 and Fab 5 •Safety and Health Expert Platform Outstanding Contribution Award - Fab 2 and Fab 5 •Safety and Health Outstanding Contribution Award - Fab 2 and Fab 5
	Central Taiwan Science Park Administration	•Excellence in Labor Safety and Hygiene Award - Fab 15A •Enterprise Green Procurement Award - Fab 15A
	Southern Taiwan Science Park Administration	•Excellence in Environmental Protection - Fab 14B
	Hsinchu County Environmental Protection Bureau	•Enterprise Green Procurement Award - Fab 2 and 5, Fab 12A •Enterprise Road Adoption Award - Fab 12 Phase 6
	Hsinchu City Environmental Protection Bureau	•Enterprise Green Procurement Award - Fab 8, Fab 12A •Enterprise Environmental Protection Evaluation - Fab 12A
	Tainan City Environmental Protection Bureau	•Enterprise Green Procurement Award - Fab 6, Fab 14A, Fab 14B, Advanced Backend Fab 2
Society	Forbes	•Selected as one of the World’s Best Employers
	Taiwan Stock Exchange	•Selected as Taiwan High Compensation 100 Index component •Selected as Taiwan Employment Creation 99 Index component
	R.O.C. Ministry of Labor	•Excellence in Labor Safety and Hygiene Award - Fab 2 and Fab 5

7.2 Environmental, Safety and Health (ESH) Management

TSMC believes its environmental, safety and health practices must not only meet legal requirements, but should also measure up to or exceed recognized international best practices. TSMC’s ESH policies aim to reach the goals of “zero incident” and “sustainable development,” and to make TSMC a world-class company in environmental, safety and health management. The Company’s strategies for reaching 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 social responsibilities.

All TSMC manufacturing facilities have received ISO 14001: 2015 certification for environmental management systems and OHSAS 18001: 2007 certification for occupational safety and health management systems. All fabs in Taiwan have also been TOSHMS (Taiwan Occupational Safety and Health Management System) certified since 2009.

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, fire and explosion prevention as well as to minimize the impact of earthquake damage, so as to reduce overall environmental, safety and health risks.

In 2006, in order to meet regulatory and customer needs for the management of hazardous materials, TSMC began to adopt the IECQ QC 080000 Hazardous Substance Process Management (HSPM) System. All TSMC manufacturing facilities have been QC 080000 certified since 2007. By practicing QC 080000, TSMC ensures that its products comply with regulatory and customer requirements, 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 its related substances restriction standards. In response to “Water Pollution Control Act,” Article 14-1, enterprises must reduce hazardous substance in discharged wastewater to lower environmental and human health risks, TSMC started a reduction project for a hazardous substance, n-methylpyrrolidinone (NMP), to avoid discharging to wastewater. This project is scheduled for completion in 2018.

Since 2011, TSMC has adopted the ISO 50001 Energy Management System for the continuous improvement of energy conservation. TSMC’s Fab 12 Phase 4 data center is Taiwan’s first facility to earn the ISO 50001 certification for a high-density computing data center. As of 2016, TSMC has three fabs – Fab 12 Phase 4/5/6, Fab 14 Phase 3/4 and Fab 15 – that earned ISO 50001 certifications. Other TSMC fabs also implement energy management measures consistent with ISO 50001.

In order to establish the healthiest workplace possible, in 2017 TSMC formed a corporate-level health promotion committee, led by two vice presidents of operations. Committee members included site directors, Safety and Health department managers, Wellness, HR and Legal Affairs etc., as well as external experts invited in to discuss the potential risks of occupational diseases in semiconductor manufacturing and develop occupational disease prevention plans. To minimize health risks to employees, suppliers, and contractors in the workplace, TSMC adopted rigorous safety and health control measures designed to prevent occupational injuries and diseases and promote employee safety and mental health.

To mitigate the supply chain risk and fulfill corporate social responsibility, TSMC not only does its best to manage ESH but also strives to improve ESH performance of its supply chain through audits and counselling.

Since 2007, TSMC has used priority work management and self-management to govern work performed by contractors. We require contractors performing level-one high-risk operations to complete certification for technicians and to establish their own OHSAS 18001 safety and health management system. This promotion of self-management is aimed at increasing the sense of responsibility of TSMC’s contractors, with the goal of promoting safety awareness and technical improvement for all contractors in the

industry. For on-site contractor personnel, in 2017 TSMC began to standardize safety and health training courses and increase their frequency, with the aim of improving training effectiveness and safety awareness. To facilitate the program and mitigate on-site operational risks, TSMC has initiated to establish a two-way electronic communication platform that enables instant requirements delivery.

TSMC collaborates with suppliers to improve the sustainability of the Company’s supply chain regarding ESH-related issues, such as environmental protection, safety and hygiene code compliance, hazardous substance management, fire protection, and natural disaster mitigation. TSMC not only performs ESH audits at its suppliers’ manufacturing sites but also proactively assists them with improving ESH performance.

TSMC also monitors potential climate-change related risks in the supply chain, requests suppliers to conduct carbon emissions inventory and encourages suppliers to implement measures to save energy, reduce carbon emissions, conserve water and reduce waste.

In recent years, TSMC suppliers’ performance on pollution control and safety management has made good progress in procedure establishment and implementation; so TSMC takes a step further to pay more attention to occupational hygiene issues directly related to labor health. In 2017, TSMC and the Ministry of Labor Occupational Safety and Health Administration (OHSAs) jointly launched the “Semiconductor Supply Chain Safety and Health Promotion Project”. TSMC invited suppliers to participate in the project. As engaged by OSHA, a professional team has taken on the responsibility of providing consultation through document review and on-site inspection to participating suppliers on management procedures and hardware setup in order to improve the working environment and labor health management.

7.2.1 Environmental Protection

Greenhouse Gas (GHG) Emission Reduction

TSMC actively participates in the World Semiconductor Council (WSC) in its efforts to set up a global voluntary PFC (perfluorinated compounds) emissions reduction goal for the 2011 to 2020, and has incorporated past experience to develop best practices. The implementation of best practices has been adopted by the WSC as a major element of the 2020 goal. In 2013, in accordance with the “EPA Early Actions for Carbon Credit of Greenhouse Gases Reduction” regulation, TSMC applied for the recognition of greenhouse reduction

from 2005 to 2011 that committed to the WSC and EPA, and received 5.28 million tons of carbon dioxide credits in 2015. Those carbon credits can be used to offset greenhouse gas emissions of new manufacturing facilities regulated by Environmental Impact Assessment (EIA) Act. The mitigation of climate-change risk supports the Company's sustainable operations.

In 2005, TSMC was the leading semiconductor company to complete the GHG (Greenhouse Gas) inventory program and take a complete inventory of its GHG emissions and to gain ISO 14064 certification. The purpose of the inventory is to serve as a baseline reference for TSMC's strategy to reduce GHG emissions, to meet domestic regulatory requirements, and to prepare for carbon trading and corporate carbon asset management. All TSMC facilities conduct an annual GHG inventory. The inventory shows that the major direct GHG emissions are PFCs, which are used in the semiconductor manufacturing process. The primary indirect GHG emission is electricity consumption.

In order to cope with the global climate change and the R.O.C. "Greenhouse Gas Reduction and Management Act" promulgated in 2015, TSMC initiated a cross-functional platform for corporate carbon management in 2016. The three focuses of this platform are legal compliance, carbon emission reduction, and carbon credit acquisition. In addition to participating in official regulatory consultation and communications meetings, TSMC also sets medium- and long-term reduction targets through the "Energy and Carbon Reduction Committee" led by VPs of operations, which are carried out by energy and carbon reduction teams of individual fabs, as the Company continues to strengthen climate mitigation and adaption. Because 70% of GHG emissions come from electricity consumption, TSMC emphasizes energy saving and carbon reduction initiatives. TSMC has not only adopted energy-conserving designs in its manufacturing fabs and offices, but has also continuously improved the energy efficiency of its facilities during operation. These efforts simultaneously reduce both carbon dioxide gas emissions and costs.

Since 2015, TSMC has actively participated in the R.O.C. Ministry of Economic Affairs' voluntary "Green Power Purchasing Program" for three consecutive years. In 2017, TSMC was the largest green power purchaser in Taiwan, purchasing 100 million kilowatt hours (kWh) of green power

that made up nearly 50% of the Taiwan Power Company's total green power available for purchase under the program in that year. Since green power is generated with zero carbon emissions, the purchase of 100 million kWh of green power will eliminate over 52.9 million kilograms of CO₂ emissions, equivalent to the carbon absorbed by approximately 5.3 million trees in one year. TSMC hopes that by supporting Taiwan's renewable energy efforts, it can continue to pursue sustainability, promote a low-carbon environment, and reduce the impact of global warming. We also promise that in the future, renewable energy sources will be purchased directly under the conditions of regulatory and market supply. This is a clear manifestation of the Company's active support of the United Nations Sustainable Development Goals (SDGs).

Air and Water Pollution Control

The Company has installed effective air and water pollution control equipment in each wafer fab to meet regulatory emissions standards. In addition, TSMC maintains backup pollution control systems, including emergency power supplies, to lower the risk of pollutant emission in the event of equipment failure. TSMC centrally monitors the operations of its air and water pollution control equipment around the clock and treats system effectiveness as an important tracking item to ensure the quality of emitted air and discharged water.

To make the most effective use of Taiwan's limited water resources, all TSMC fabs strive to increase water reclamation rates by adjusting the water usage of manufacturing equipment and improving wastewater reclamation systems. All fabs meet or exceed the process water reclamation rate standard of the Science Park Administration. New fabs are able to reclaim more than 85% of process water, outperforming most semiconductor fabs around the world. TSMC also makes every effort to reduce non-manufacturing-related water consumption, including water used in air conditioning systems, sanitary facilities, cleaning and landscaping activities and kitchens. TSMC uses an intranet website to collect and measure water recycling volumes company-wide.

Since water resources are inherently local, TSMC shares its water saving experiences with other semiconductor companies through the Association of Science-Based Industrial Park to promote water conservation in order to achieve the Science Park's goals and ensure a long-term balance of supply and demand.

Waste Management and Recycling

The Company has a designated unit responsible for waste recycling and disposal. To meet the goal of sustainable resource utilization, TSMC's priorities are: (1) reduce process waste; (2) onsite reuse; and (3) offsite recycling. The last option consists of treatment or disposal. To achieve raw material reduction, resource recycling and the goal of zero waste, for example TSMC built an in-house waste sulfuric acid pre-treatment system as electronic grade sulfuric acid can be used as waste water treatment agents after the wafer fabrication process. In order to track waste flow and ensure that all waste is treated or recycled legally and properly, TSMC carefully selects waste disposal and recycling contractors and performs annual audits of certification documents and site operations. TSMC also takes proactive steps to strengthen vendor auditing effectiveness. For example, all waste transportation contractors were asked and agreed to join the "GPS Satellite Fleet" so that all the cleanup transportation routes and abnormal stays for all trucks can be traced. In addition, all waste recycling and treatment vendors have installed closed-circuit TV systems at operating sites to monitor and audit the waste handling. Meanwhile, TSMC also conducts an ongoing survey of recycling product tracking. These actions were taken to ensure lawful and proper waste recycling and treatment.

In 2017, TSMC's fabs in Taiwan achieved a 95% waste recycling rate for the ninth consecutive year, with a landfill rate below 1% for the eighth consecutive year. Also during the year, TSMC amended its articles of incorporation to add four business items for chemical materials to ensure waste flow and reduce risks of improper waste disposal by commissioned agencies. TSMC also set up on-site resource activation facilities to regenerate waste resources produced from process activities into products to provide on-site or sell to other factories so as to become the leading company for waste resources regeneration. Also in 2017, TSMC not only regenerated used copper sulfate into copper tubes but also took the further step of collaborating with raw material suppliers to produce electronic grade copper anodes using copper tubes regenerated in the TSMC manufacturing process.

Environmental Accounting

The purpose of TSMC's environmental accounting system is to identify and calculate environmental costs for internal management. At the same time, the Company can also evaluate the savings or economic benefits of environmental protection programs so as to promote cost-effective programs. While environmental expenses are expected to continue growing, environmental accounting can help TSMC manage these costs more effectively. TSMC's environmental accounting measures various environmental costs, establishes independent environmental account codes, and provides these to all units for use in annual budgeting. The Company's economic benefit evaluation calculates cost savings for reduction of energy, water or waste and benefits from waste recycling in accordance with its environmental protection programs.

The environmental benefits disclosed in this report include real income from projects such as waste recycling and savings from major environmental projects. In 2017, 719 environmental projects of TSMC fabs were completed and the total benefits, including waste recycling, were more than NT\$2,370 million.

2017 Environmental Cost of TSMC Fabs in Taiwan

Unit: NT\$ thousands

Classification	Description	Expense	Investment
1. Direct Costs for Reducing Environmental Impact			
(1) Pollution Control Cost	Fees for air pollution control, water pollution control, and others	4,560,760	3,771,513
(2) Resource Conservation Cost	Costs for resource (e.g. water) conservation	-	1,012,000
(3) Industrial Waste Disposal and Recycling	Costs for waste treatment (including recycling, incineration and landfill)	1,718,891	-
2. Indirect Cost for Reducing Environmental Impact (Environmental Managerial Cost)	(1) Cost of 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	260,889	173,243
3. Other Environmental Costs	(1) Costs for decontamination and remediation (2) Environmental damage insurance fees and environmental taxes and expenses (3) Costs related to environmental settlement, compensations, penalties and lawsuits	-	-
Total		6,540,540	4,956,756

2017 Environmental Efficiency of TSMC Fabs in Taiwan

Unit: NT\$ thousands

Category	Description	Efficiency
1. Cost Savings of Environmental Protection Projects	Energy savings: completed 452 projects	1,280,000
	Water savings: completed 15 projects	25,170
	Waste reduction: completed 252 projects	814,000
2. Real Income from Industrial Waste Recycling	Recycling of used chemicals, wafers, targets, batteries, lamps, packaging materials, paper cardboard, metals, plastics, and other waste	251,000
Total		2,370,170

Green Building and Green Factory

Since 2006 TSMC has adopted standards from both the Taiwan "Green Building" and the evaluation of 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 than conventional designs. During this time, TSMC has also continued to upgrade existing office buildings to comply with the LEED standard each year. From 2008 to 2017, 24 of TSMC's fabs and office buildings have achieved LEED certifications (3 platinum-class and 21 gold-class). Meanwhile, TSMC also received 5 Taiwan Intelligent Building diamond class certifications and 19 Taiwan EEWH (ecology, energy saving, waste reduction and health) certifications (16 diamond-class, 3 gold-class).

TSMC believes that more manufacturing companies should convert their facilities into green factories to improve the environment and lower construction costs. Therefore, the Company freely shares its practical experience with industry, government and academia. As of the end of 2017, 11,522 visitors from 300 different industrial, government, academic and general community groups had contacted TSMC to gain an understanding of the Company's green factory practices. Since 2009, TSMC has led the industry in support of the Taiwan government's "Green Factory Labeling System," a system that includes "Clean Production Evaluation" and "Green Factory Evaluation". TSMC received Taiwan's first "Green Factory Label" and 9 labels in total as of the end of 2017.

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. We reduce the resources and energy consumed for each unit of production and are able to provide more advanced, power efficient and ecologically sound products, such as Near-Vt (Near Threshold Voltage, NVT) chips for wearables and Internet of Things (IoT), ultra-low power chips for narrowband IoT, 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 adaptors chips, and high-efficiency DC brushless motor chips, etc. By leveraging TSMC's superior energy-efficient technologies, these chips support sustainable city infrastructure, greener vehicles, smart grids, and other applications. In addition to helping customers design low-power consumption, high-performance products to reduce resource consumption over the product's life cycle, TSMC's green manufacturing practices provide further "Green Value" to customers and other stakeholders.

TSMC-manufactured ICs are used in a broad variety of applications covering various segments of the computer, communications, consumer, industrial and other electronics markets. 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. TSMC works hard to achieve profitable growth while providing products that add environmental and social value. Listed below are several examples of how TSMC-manufactured products significantly contribute to the environment and society.

Environmental Contribution by TSMC Foundry Services

1. Continue to Drive Technology to Lower Power Consumption and Save Resources

• To improve sustainability, TSMC continues to drive the development of advanced semiconductor process technologies to support customer designs that result in the most advanced, energy-saving and environmentally friendly products. In each new technology generation, circuitry line widths shrink, making transistors smaller and reducing product power consumption.

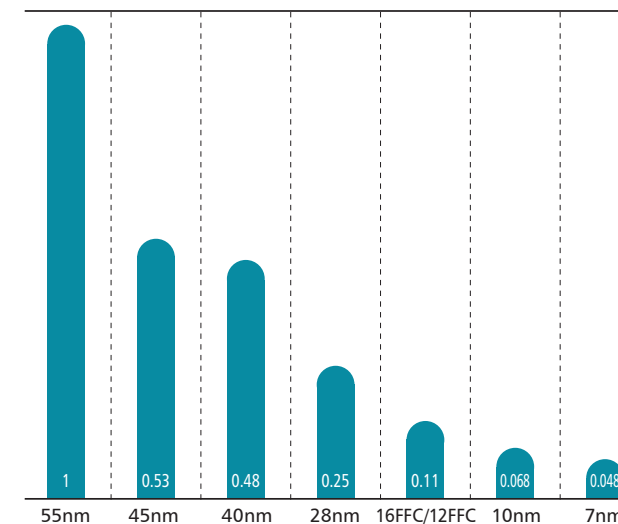
• As TSMC quickly ramped up its 28nm and newer generation technologies, the combined wafer revenue contribution grew significantly from 12% in 2012 to 58% in 2017. TSMC's objective is to continue R&D efforts and to increase the wafer revenue contribution in 28nm and beyond technologies, helping the Company achieve both profitable growth and sustainability.

TSMC Wafer Revenue Contribution from 28nm and Beyond Technologies

2013	2014	2015	2016	2017
30%	42%	48%	54%	58%

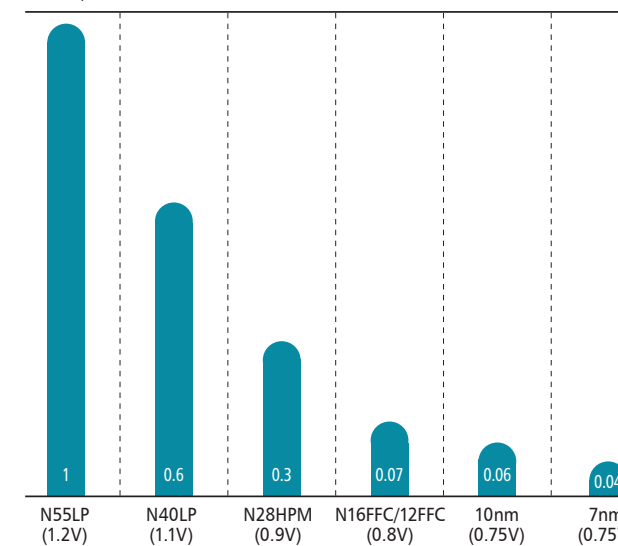
Chip Die Size Cross-Technology Comparison

Die size reduces as line width shrinks



Chip Total Power Consumption Cross-Technology Comparison

More power is saved as line width shrinks



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

• TSMC's leading manufacturing technology helps customers design and produce green products. Power management ICs, the key components that supply and regulate power to all other IC components, 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.

• In 2017, TSMC's HV/Power technologies collectively shipped more than 2.5 million 8-inch equivalent wafers to customers. In total, power management ICs manufactured by TSMC accounted for more than one-third of global computer, communication and consumer systems.

HV/Power Technologies Shipments (Unit: 8-inch equivalent wafer)

2013	2014	2015	2016	2017
>1,300K	>1,800K	>2,000K	>2,100K	>2,500K

3. Drive Industry-leading, Comprehensive Ultra-low Power (ULP) Technology Platform

To meet low-power consumption requirements for the wearable and IoT markets, TSMC continues to invest in expanding and enhancing its ultra-low power processes. TSMC provides industry's leading and comprehensive ultra-low power (ULP) technology platform to support innovations for IoT and wearable applications. TSMC's leading offerings, including 55nm ULP, 40nm ULP, 28nm ULP, 22nm ULP/ULL (ultra-low leakage), have been widely adopted by various IoT and wearable applications. TSMC extends its offering with NVT (Near Threshold Voltage) technology for extreme low power applications. In 2017, TSMC uses its leading 40nm NVT technology to power the world's lowest energy consumption wearable connected device and IoT solutions for customer.

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 circuits smaller and lowering the energy and raw materials consumed for per unit 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 2017 through TSMC's green manufacturing, see "Environmental Accounting" on page 125-126 in this annual report.

Social Contribution 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, in turn, offer remarkable convenience. TSMC contributes significant value to these devices in the following ways: (1) new TSMC process technologies help chips achieve faster computing speeds in a smaller die area, 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. Mobile devices can therefore be used for a longer period of time; and (3) TSMC helps spread the growth of more convenient wireless connectivity such as 3G/4G and WLAN/Bluetooth, meaning people can communicate more efficiently and "work anytime and anywhere," significantly improving the mobility of modern society.
- Mobile computing related segments, such as baseband, RF transceivers, application processors (AP), wireless local area networks (WLAN), CMOS image sensors, near field communication (NFC), Bluetooth, and global positioning systems (GPS) among others, represented 50% of TSMC wafer revenue in 2017.

TSMC Wafer Revenue Contribution from Mobile Computing Related Products

2013	2014	2015	2016	2017
44%	48%	51%	52%	50%

Note: Mobile computing related products were re-classified in 2014.

2. Unleash Customers' CIS (CMOS image sensor) and MEMS (Micro-electromechanical Systems) Innovations that Enhance Human Health and Safety

TSMC continues to enhance or develop innovative CIS and MEMS technologies, which are extended from traditional sensing to machine sensing, such as NIR (near infrared), ultrasound, and micro-actuators. These new technologies can support more product applications, from smartphones and consumer electronics to automotive and health services. By combining advantages of traditional sensing and machine sensing, new products using TSMC CIS and MEMS technologies can be made smaller and faster, consume less power, and greatly enhance human convenience, health, and safety. For instance, TSMC customers' CIS and MEMS products

are used in a number of advanced medical treatments as well as in preventative health care applications. Examples include early warning systems to minimize the injury from falls for the elderly, systems to detect physiological changes, car safety systems and other applications that significantly improved human health and safety.

7.2.3 Safety and Health

Safety and Health Management

TSMC's safety and health management is built on the framework of the OHSAS 18001 system and adheres to the management principle of "Plan, Do, Check, Act" to prevent accidents, promote employee safety and health and protect Company assets. All TSMC fabs in Taiwan have also received TOSHMS (Taiwan Occupational Safety and Health Management System) certification.

Besides 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 society and the environment. TSMC continually communicates with its suppliers to ensure that potential risk in the operation of production equipment is minimized, and rigorously follows safety control procedures when installing production equipment. 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 company-level prevention committees and procedures for emergency response to outbreaks of infectious diseases.

Working Environment and Employee Safety and Health Protection

TSMC'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 accountability to ESH, and building an ESH culture. TSMC safety and health management operations apply to:

• Equipment Safety and Health Management

In addition to meeting regulatory requirements and internal standards, as well as mitigating ESH-related risks when building or upgrading facilities, TSMC also 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, TSMC endeavors to automate 300mm front-opening unified pod (FOUP) transportation to prevent accumulative physical damage caused by repetitive manual handling of 300mm FOUPs. TSMC 300mm fabs have completed 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 many diversified process tools and introduces new chemicals in the R&D stage. Before using those new tools and new chemicals, they are reviewed carefully by the "New Tools 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 new chemicals' environmental, safety and health concerns can be well controlled, including engineering controls, application of personal protection equipment, and operational safety training during storage, transportation, usage and disposal.

• General Safety Management, Training and Audit

All TSMC manufacturing facilities hold environmental, safety and health committee meetings on a monthly basis. TSMC adopts 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 harm to employees and property, as well as the impact on society and the environment in the event of a disaster.

• Working Environment Hazardous Factors Management

TSMC conducts workplace hazard assessments to provide a comfortable and safe workplace to employees. TSMC also requires employees to use personal protective equipment (PPE) to prevent hazardous exposures.

TSMC performs semi-annual workplace environment assessments of physical and chemical hazards, including CO₂ concentration, illumination, noise, and hazardous chemical substances regulated by local laws. The Company has performed exposure assessments and used hierarchy management control for chemicals with potential health hazards since 2015. If abnormal measurements or events happen or an exposure assessment indicates there is an adverse

health effect for employees, ESH professionals immediately conduct onsite observation and interventions to reduce the exposure to acceptable levels.

• Health Promotion Program

In order to establish the healthiest possible workplace and prevent from occurrence of occupational disease, TSMC formed a corporate-level committee charged with three tasks to execute health promotion programs covering three scopes: (1) Exposure assessment and health risks assessment: develop an exposure assessment system to identify high health risk employees. (2) Hazardous training and notification: use standardized training materials for employee, and contractors in all TSMC fabs. Let them understand the health risks and prevention measures at workplace before working or providing any services there. (3) Strengthen management of high health concerned chemicals: sample raw materials used in the manufacturing process to confirm that they do not contain any carcinogenic, mutagenic or toxic-reproductive materials. Suppliers were required that all materials provided to TSMC must comply with applicable laws including clear disclosure of any hazardous substances.

• Emergency Response

The planning and execution of an effective emergency response should identify potential high-risk events via risk assessment and be prepared for various scenarios. It should focus on continuous improvement and practice drills covering all potentially severe events. TSMC's emergency response plans include procedures for rapid-response crisis management and disaster recovery to potential incidents.

All TSMC fabs conduct major annual emergency response exercises and evacuation drills. TSMC's Tainan site fabs continue their spot drills, which have been recognized as best practice in the industry. TSMC's onsite service contractors are required to participate in emergency response planning and exercises to ensure cooperation in handling accidents and to effectively minimize any damage caused by disasters. At least every two years, each fab director invites fab management and support functions to participate in crisis management drills for potentially high-risk events such as earthquake, fire and flood (Tainan site).

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 emergency response drills to prepare for events such as earthquakes, chemical spills, ammonia release, fires and traffic accidents.

● 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 and the H1N1 influenza outbreak in 2009), TSMC convened the corporate influenza response committee to develop the Company's strategies. These strategies include educating employees in prevention and response, publishing guidelines for managers, establishing guidelines for employee sick leave due to flu, 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.

● Employee Physical and Mental Health Enhancement

TSMC believes that employees' physical and mental health is not only fundamental to maintaining normal business operations but also part of a corporation's responsibility. To protect and promote employee physical and mental health, TSMC fosters collaboration among the onsite industrial safety and environmental protection department, onsite medical personnel of the health center, and physicians of occupational medicine. TSMC strives to reduce cardiovascular disease that might be induced or aggravated by overwork, night work or shift work, and conducts maternal health protection programs as well. TSMC devotes significant resources to mental health awareness and related activities, which not only protect employees from hazards at work but also proactively promote employee health in general. In 2017, through planned personal health management, the personnel diagnosed at middle and high risk for cardiovascular disease has decreased from 0.62% to 0.54%. 710 female employees participated in the maternal health program were all at the first degree risk (there was no harm to the mother, infant, and baby). For six consecutive years TSMC has held a series of physical and mental health activities. 896 employees have joined the weight-loss program, losing a total of 2,867 kilograms collectively. 431 attendees completed the sleep quality improvement program to improve quality of life.

Supplier and Contractor Management

● Supplier Management

As a means of enhancing its supply chain management, TSMC is committed to communicating with and encouraging its contractors and suppliers to improve their quality, cost effectiveness, delivery performance and sustainability on environmental protection, safety and health. Through regular communication with senior managers, site audits and experience sharing, TSMC collaborates with major suppliers and contractors to enhance partnership and ensure continual improvement for better 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 OHSAS 18001 systems and the workers must successfully complete work skill training.

● Supply Chain Sustainability

TSMC works with suppliers in several fields of sustainable development, such as greening the supply chain, carbon management for climate change, mitigation of fire risk, ESH management and business continuity plans in the event of a natural disaster.

Since becoming a full member of the Responsible Business Alliance (RBA) in 2015, TSMC has completed the adoption of the RBA Code of Conduct throughout the Company by performing self-assessments at its facilities worldwide and reviewing policies and procedures in the areas of labor, health and safety, environment, ethics, and management systems.

To enhance supply chain sustainability and streamline risk management, TSMC is committed to collaborating with its suppliers to maintain full compliance with Taiwan's environmental, safety, health and fire regulations, and to establish the necessary management capability as well as continuous enhancement.

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 strive to procure 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 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 one of the strongest supporters of the Responsible Business Alliance and the Global e-Sustainability Initiative (GeSI), and this will help the Company's 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 to information on smelters and mines. The Company encourages suppliers to source minerals from facilities or smelters that have received a "conflict-free" designation by a recognized industry group (such as the RBA) and also requires those who have not received such designation to become compliant with Responsible Minerals Initiative or an equivalent third-party audit program. TSMC requires the use of tantalum, tin, tungsten and gold in its products that are conflict-free.

TSMC will continue to issue the supplier survey annually and require suppliers to improve and expand their disclosure to fulfill regulatory and customer requirements. For further information, please see the Company's Form SD filed with the U.S. SEC. (http://www.tsmc.com/english/investorRelations/sec_filings.htm)

7.3 TSMC Education and Culture Foundation

The TSMC Education and Culture Foundation, led by TSMC Vice Chairman F.C. Tseng, who serves as the foundation's chairman, was established in 1998 to make CSR contributions. In 2017, to fulfill TSMC's social responsibility, the TSMC Education and Culture Foundation contributed over NT\$76.79 million to the three main engagements: caring about the educationally disadvantaged, supporting youth with multiple educational platforms, and promoting arts and culture.

In 2017, the TSMC Education and Culture Foundation collaborated with the Teach for Taiwan Foundation (TFT) to support young teachers devoted to education in remote townships to narrow the urban-rural gap. The Ministry of Culture bestowed the Art & Business Award upon the TSMC Education and Culture Foundation for its contributions to two projects that have been active for more than ten years: the "TSMC Youth Literature Award" and the "TSMC Youth Calligraphy and Seal-Carving Competition". 2017 also marked the TSMC Hsinchu Arts Festival's 15th anniversary. To celebrate

the special moment, the Festival invited Peony Pavilion – Young Lovers' Edition by Pai Hsien-yung, to present the Chinese exquisite theatric beauty as a gift to the community.

Collaboration with Educational Partners

Narrowing Educational Gap between Cities and Rural Regions

In July 2016, the National Development Council of Taiwan Government conducted a survey of educational conditions in remote townships. The survey showed that educational gaps between city and rural regions had widened owing to several trends including low birth rate, globalization, and informatization. The TSMC Education and Culture Foundation has been focusing on the issue. Cooperating with several social groups, non-governmental organizations, and educational institutions, the TSMC Education and Culture Foundation provided resources of the arts, sciences, reading and digital education for disadvantaged children. In 2017, the Foundation began to support TFT's Teacher Training Program to fulfill the need for qualified teachers in rural regions.

The TSMC Education and Culture Foundation believes in the power of reading. As the initial philanthropy partner of "Hope Reading" of the CommonWealth Foundation, the TSMC Education and Culture Foundation has been donating 100 good books to each of 200 high schools and primary schools in Taiwan's remote townships every year since 2004. More than 260,000 children have been helped with more than 230,000 books donated. In response to the needs of the digital era, in 2016, the TSMC Education and Culture Foundation further sponsored "Hope Reading 2.0" with NT\$6 million in three years to provide schools with tablets and e-learning systems to encourage students to read. With the building of the digital platform, 545 students read 10,000 books in one semester, demonstrating a significant improvement in reading habits.

The TSMC Education and Culture Foundation also emphasizes aesthetics and science education. "TSMC Aesthetic Tour" and "TSMC Science Tour," launched in 2003 and 2010, respectively, take children from remote townships throughout the country to visit the National Palace Museum, the Taipei Fine Arts Museum and the science museums in northern, central and southern Taiwan. In 2017, more than 3,600 students participated in these tours. To date, the Foundation has sponsored over NT\$95 million to take more than 100,000 students from rural primary schools on tours to expand their aesthetic vision and inspire their scientific interests.

To extend care to the educationally disadvantaged, in addition to the cooperation with Junyi Academy and Boyo Social Welfare Foundation, which provide digital learning tools and tutors, in 2017 the TSMC Education and Culture Foundation began sponsoring the Teacher Recruitment and Training Program of TFT, which recruits passionate youths to undergo orientation and training to become qualified educators. Following the program, the young teachers will be deployed to rural schools to provide disadvantaged students with suitable and superior education. For economically disadvantaged students in top universities, the TSMC Education and Culture Foundation sponsors the "Rising Sun Plan" of National Tsing Hua University and the "Sunflower Plan" of National Central University. In 2017, the TSMC Education and Culture Foundation provided 29 students with NT\$2.42 million in scholarships and launched textbook donations to lighten their economic burden and enable them to focus on their studies.

Building Educational Platforms

Encouraging the Youth to Reach Their Dreams

The TSMC Education and Culture Foundation has been holding multiple activities both in science and humanity as well as Dream Builders platform to encourage young people to explore and extend their interests and visions. In 2017, the Ministry of Culture of the Taiwan Government bestowed the Art & Business Award in the category of Cultivation of Arts and Culture Talents upon the TSMC Education and Culture Foundation for long-term contributions to two projects: the "TSMC Youth Literature Award" and "TSMC Youth Calligraphy and Seal-Carving Competition". To raise the humanity spirit of our young generation, these two projects not only provide senior high school students with the chance to access literature and calligraphy beyond school academics, but also encourage the literature and calligraphy lovers to showcase their talent.

The TSMC Education and Culture Foundation has held the "TSMC Youth Literature Award" and "TSMC Youth Calligraphy and Seal-Carving Competition" since 2004 and 2008, respectively, to encourage young people to develop proficiency in literature and calligraphy. For the literature award, there were 616 works in total submitted in 2017. Furthermore, the Foundation ran a campaign to vote for the youth's favorite writer to inspire the junior writers to look up to senior ones. This year is the tenth anniversary of the "TSMC Youth Calligraphy and Seal-Carving Competition". The TSMC Education and Culture Foundation newly incorporates seal calligraphy and tracking calligraphy into the contest. The

contest and extensive workshops attracted more than 900 attendees in total.

To encourage those in the younger generation to pursue their dreams, the TSMC Education and Culture Foundation held the second "TSMC Dream Builders of Youth Project". More than 66 teams from Taoyuan, Hsinchu and Miaoli applied for the project and, after three-stage reviews by professional committees, 6 teams were awarded prizes totaling NT\$3 million. Within a year, they will dedicate themselves to various programs, including self-exploration, culture preservation, humanity care and so on to demonstrate their creativity and potential.

According to the Program for International Student Assessment, Taiwanese students excel in mathematics and sciences but are less proficient at logical thinking, argumentation and presentation. Therefore, the TSMC Education and Culture Foundation sponsors The Center for Advanced Science Education at National Taiwan University to hold the competition, "TSMC Cup – Competition of Scientific Short Talk". The competitors must read a wide variety of scientific materials, write popular introductory articles, give scientific speeches and answer the questions from their opponents, in order to improve their science presentation skills. In 2017, the theme of the competition was mathematics, which attracted 212 teams composed of over 700 students from K9 to K12. Through the assigned novels, movies, and TV series, the students discovered and absorbed how mathematics is used in everyday life.

The TSMC Education and Culture Foundation also continued to support three science talent camps: Wu Chien-Shiung Science Camp, Wu Ta-Yu Science Camp and Madame Curie Senior High School Chemistry Camps, to provide 479 senior high school students and teachers the opportunity to meet and learn from world-class scientists and Nobel Prize masters with the objective of inspiring the students and helping them realize their potential.

Promoting the Arts and Culture

Presenting the Chinese Exquisite Theatric Beauty

The TSMC Education and Culture Foundation is devoted to promoting arts and culture. In addition to actively supporting prominent international and Taiwanese artistic performances, cultivating local talented groups and having continued supports to classic arts, the TSMC Education and Culture

Foundation has continued to organize the "TSMC Hsin-Chu Arts Festival" at TSMC's site communities, Hsinchu, Taichung and Tainan, to present a broad spectrum of performances to uplift the community's spiritual life.

2017 is the TSMC Hsin-Chu Arts Festival's 15th anniversary. To celebrate, the Foundation presented the classic Chinese Kun Opera, Peony Pavilion – Young Lovers' Edition by Pai Hsien-yung at National Taichung Theatre. The production has been not presented for 13 years in Taiwan. It is meaningful for the Foundation to present the marvelous Kun Opera as the opening performance of the Festival. For classical music programs, the Festival invited three well-known masters – Kun Woo Paik, Kolja Blacher, and Rudolf Buchbinder to perform Ludwig von Beethoven's classic pieces. In addition, the Festival also organized the carnival, "Green Park Nearby My Home," to convey to the community the education of eco-environmental protection through thetheatric play and workshops. The Foundation also invited renowned writers to share their understanding of their favorite Nobel Literature Award writers and their works. The 2017 TSMC Hsin-Chu Arts Festival arranged 36 fine arts activities, attracting nearly 20,000 attendees.

The TSMC Education and Culture Foundation also supports various Taiwanese art groups. In 2017, the TSMC Education and Culture Foundation again sponsored National Symphony Orchestra to produce Giacomo Puccini's *Il trittico*, *Il tabarro*, *Suor Angelica*, and *Gianni Schicchi*, premiered in Taiwan. The opera was directed by James Robinson, the Artistic Director of Opera Theatre of St. Louis. The stage, props, and costumes were made to international standards. The production attracted more than 3,700 fans and gained overwhelmingly positive responses.

The TSMC Education and Culture Foundation has a long-term commitment to relive historic buildings and to promote Chinese Traditional Classics. Since 2008, the TSMC Education and Culture Foundation has invited Professor Yih-yun Hsin to teach traditional Chinese philosophy and wisdom through broadcast programs on the IC Radio Broadcasting Station. In 2017, Professor Hsin finished the *Analects of Confucius* and the lectures were made into a collection of audio books, which are extremely popular and followed by Chinese audiences all over the world. The TSMC Education and Culture Foundation also collaborates with Literary Supplement of United Daily

News to organize monthly literary lectures, inviting authors to read their works in the Sun Yun-Suan Memorial Museum and to offer community residents a chance to experience the charm of literature up close and in person.

7.4 TSMC Charity Foundation

In order to reinforce TSMC's corporate social responsibilities and set a comprehensive mechanism for management, TSMC established the TSMC Charity Foundation in June 2017. Sophie Chang assumed the chairperson's role with the intention of leading the foundation to create a "brilliant influence for spreading love", continuously listening to the needs of society and inspire the efforts needed to make great progress in Taiwan.

To leverage internal and external resources to optimize the influence of power, TSMC Charity Foundation, when first started, aligned with TSMC's corporate social responsibilities policy and with the United Nations' Sustainable Development Goals (SDGs) and defined four key themes for the foundation: taking care of elders, promoting filial piety, caring for the disadvantaged and protecting the environment. By providing services in these four areas, TSMC's Charity Foundation can help to build a better society in Taiwan, and also make the world a better place to live.

- **Take care of elders:** Through Networking of Love, the resources of the hospitals in Taiwan have been integrated to provide prevention and treatment and promote mental health and wellbeing for the elderly who live alone. Currently partners in Networking of Love include: Taipei Veterans General Hospital, Old Five Old Foundation, Miaoli General Hospital, Feng Yuan Hospital, China Medical University Hospital, Lin Welfare and Charity Foundation, Tainan Puli Association, Sin-Lau Medical Foundation, Jianan Psychiatric Center, Hengchun Tourism Hospital, Mennonite Christian Hospital and its Charity Foundation.
- **Promote filial piety:** Promoting and reviving the younger generation's appreciation of filial piety and promoting the value of filial piety in Eastern culture can help solve many social issues in an aged society, enhance the capability of sustainable develop of the society. In 2017, TSMC Charity Foundation collaborated with K-12 Education Administration, Ministry of Education and to edit and publish teaching materials on filial piety.

● **Care for the disadvantaged:** Providing goods and medical resources to disadvantaged groups can ensure they can have safe, effective, quality and affordable essential medicines and vaccines. Ensuring disadvantaged groups have inclusive and equitable quality education will also go a long way towards achieving the United Nations' goal to "End poverty in all its forms". TSMC's volunteers in this effort now number more than 8,000.

● **Protect the environment:** Promoting environmental education and knowledge will increase people's awareness of the importance of prevention and adaptation regarding climate change. This includes TSMC's ecology volunteers, who provide ecology tours in Hsinchu Fab 12B, Taichung Fab 15, Tainan Jacana Ecology Education Park, and TSMC's professional energy-saving volunteers, who are organized by employees of the Company and assist schools at all levels on energy-saving assessment and improvement. The service locations cover: Taipei, Hsinchu, Taichung, Tainan and Kaohsiung such areas, providing power consumption safety and professional energy saving suggestions.

7.5 TSMC i-Charity

"TSMC i-Charity" is an interactive online platform launched in 2014 for employees to proactively take part in philanthropic activities and give back to society. The intranet opens a channel for TSMC employees to propose caring projects, share results, suggest new ideas and participate in philanthropic events directly and in a timely manner.

In 2017, 3,825 attendees participated in the following projects, as over NT\$8 million in contributions were received:

- Library Repairing and Reconstruction for Nanhua Elementary School
- School Repairing and Reconstruction for Tainan Jin-Hu Elementary School
- School Repairing, Reconstruction and Expansion for Chiayi Shuishang After-class School

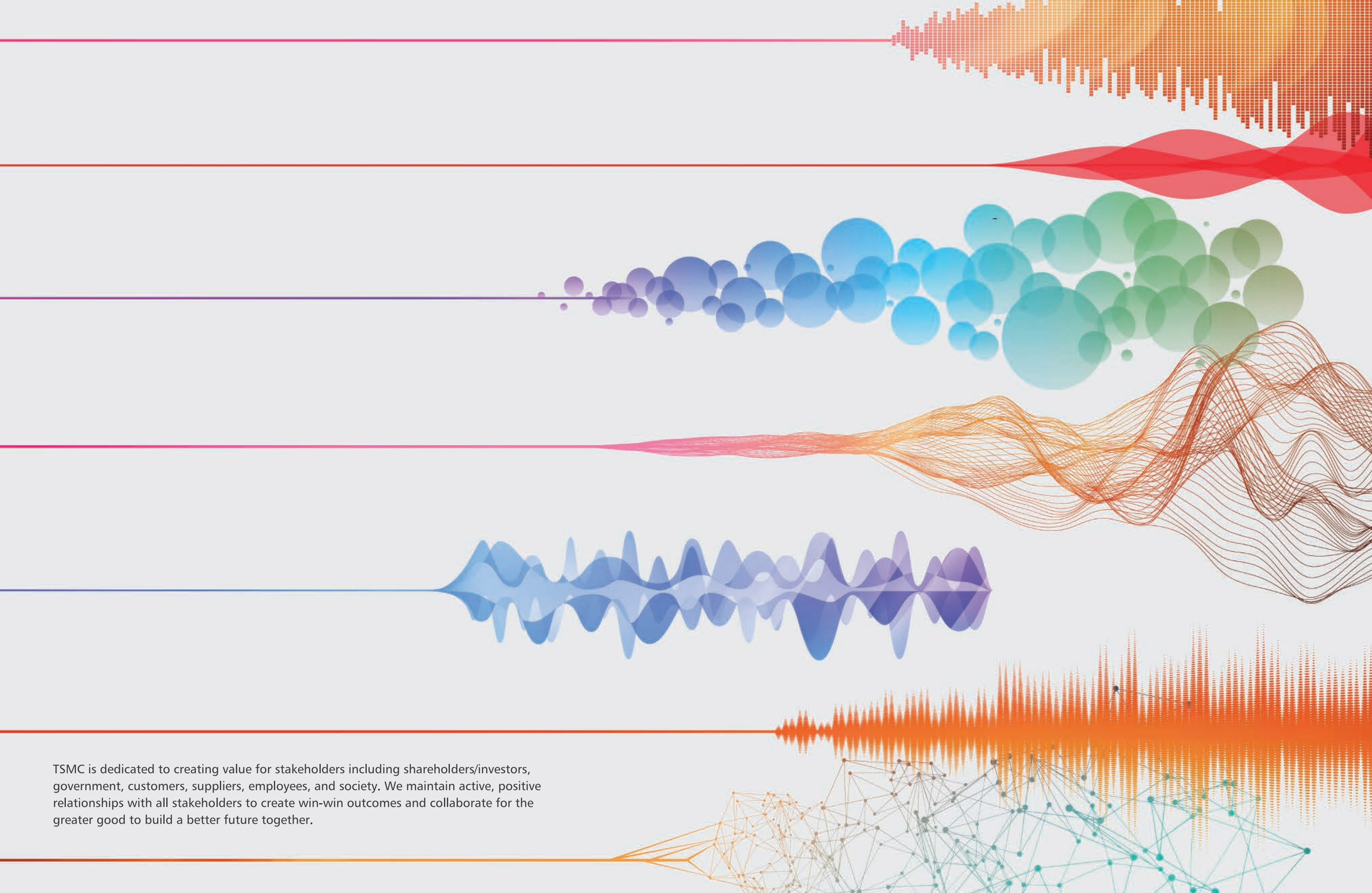
From 2014 to 2017, TSMC i-Charity platform has received over NT\$52 million in contributions. With this interactive platform, TSMC hopes to maintain its commitment to society and encourage employees to join in efforts to care for and give back to society in all ways.

7.6 Social Responsibility Implementation Status as Required by the Taiwan Financial Supervisory Commission

Assessment Item	Implementation Status			Non-implementation and Its Reason(s)
	Yes	No	Summary	
1. Implementation of Corporate Governance (1) Does the Company have a corporate social responsibility policy and evaluate its implementation? (2) Does the Company hold regular CSR training? (3) Does the Company have a dedicated (or ad-hoc) CSR organization with Board of Directors authorization for senior management, which reports to the Board of Directors? (4) Does the Company set a reasonable compensation policy, integrate employee appraisal with CSR policy, and set clear and effective incentive and disciplinary policies?	V		(1) Please refer to "7. Corporate Social Responsibility" on page 118-135 of this Annual Report. (2) Please refer to "3.5 Code of Ethics and Business Conduct" on page 46-50 of this Annual Report (3) Please refer to "7. Corporate Social Responsibility" on page 118-135 of this Annual Report. (4) Social responsibility is regarded as an integral part of corporate governance by TSMC. TSMC's fair compensation policy is set with consideration of the goals of the Company's corporate governance and operation; corporate social responsibility is included as part of its indices. For further details, please refer to "5.5 Human Capital" on page 85-89 of this Annual Report.	None
2. Environmentally Sustainable Development (1) Is the Company committed to improving resource efficiency and to the use of renewable materials with low environmental impact? (2) Has the Company set an Environmental management system designed to industry characteristics? (3) Does the Company track the impact of climate change on operations, carry out greenhouse gas inventories, and set energy conservation and greenhouse gas reduction strategy	V		Please refer to "7.2.1 Environmental Protection" on page 123-126 of this Annual Report.	None

(Continued)

Assessment Item	Implementation Status			Non-implementation and Its Reason(s)
	Yes	No	Summary	
3. Promotion of Social Welfare (1) Does the Company set policies and procedures in compliance with regulations and internationally recognized human rights principles? (2) Has the Company established appropriately managed employee appeal procedures? (3) Does the Company provide employees with a safe and healthy working environment, with regular safety and health training? (4) Has the Company established a mechanism for regular communication with employees and use reasonable measures to notify employees of operational changes which may cause significant impact to employees? (5) Has the Company established effective career development training plans? (6) Has the Company set policies and consumer appeal procedures in its R&D, purchasing, production, operations, and service processes? (7) Does the Company follow regulations and international standards in the marketing and labelling of its products and services? (8) Does the company evaluate environmental and social track records before engaging with potential suppliers? (9) Does the Company's contracts with major suppliers include termination clauses if they violate CSR policy and cause significant environmental and social impact?	V		(1) Please refer to "5.5 Human Capital" on page 85-89 of this Annual Report. (2) Please refer to "5.5 Human Capital" on page 85-89 of this Annual Report. (3) Please refer to "7.2.3 Safety and Health" on page 128-131 of this Annual Report. (4) Please refer to "5.5 Human Capital" on page 85-89 of this Annual Report. (5) Please refer to "5.5 Human Capital" on page 85-89 of this Annual Report. (6) Not applicable as TSMC is not an end product manufacturer. (7) Not applicable as TSMC is not an end product manufacturer. (8) Please refer to "Supplier and Contractor Management" on page 130-131 of this Annual Report. (9) Please refer to "Risks Associated with Purchase Concentration" in 6.3.3 Operational Risks of this Annual Report.	None
4. Enhanced Information Disclosure Does the Company disclose relevant and reliable CSR information on its website and the Taiwan Stock Exchange website?	V		TSMC has published a "Corporate Social Responsibility Report" since 2008, and discloses this on the Company's website (http://www.tsmc.com/english/csr/index.htm).	None
5. If the company has established its corporate social responsibility code of practice according to "Listed Companies Corporate Social Responsibility Code of Practice," please describe the operational status and differences. TSMC follows the Corporate Social Responsibility Policy set by the Chairman, Dr. Morris Chang. For our corporate social responsibility operational status, please refer to "7. Corporate Social Responsibility" on page 118-135 of this annual report and our corporate social responsibility related information in our website: http://www.tsmc.com/english/csr/index.htm				
6. Other important information to facilitate better understanding of the company's implementation of corporate social responsibility: Please refer to TSMC's website for its corporate social responsibility implementation status: http://www.tsmc.com/english/csr/index.htm				
7. Other information regarding "Corporate Responsibility Report" which is verified by certifying bodies: TSMC's Corporate Social Responsibility Report is in accordance with the GRI Standards and verified by certifying bodies.				

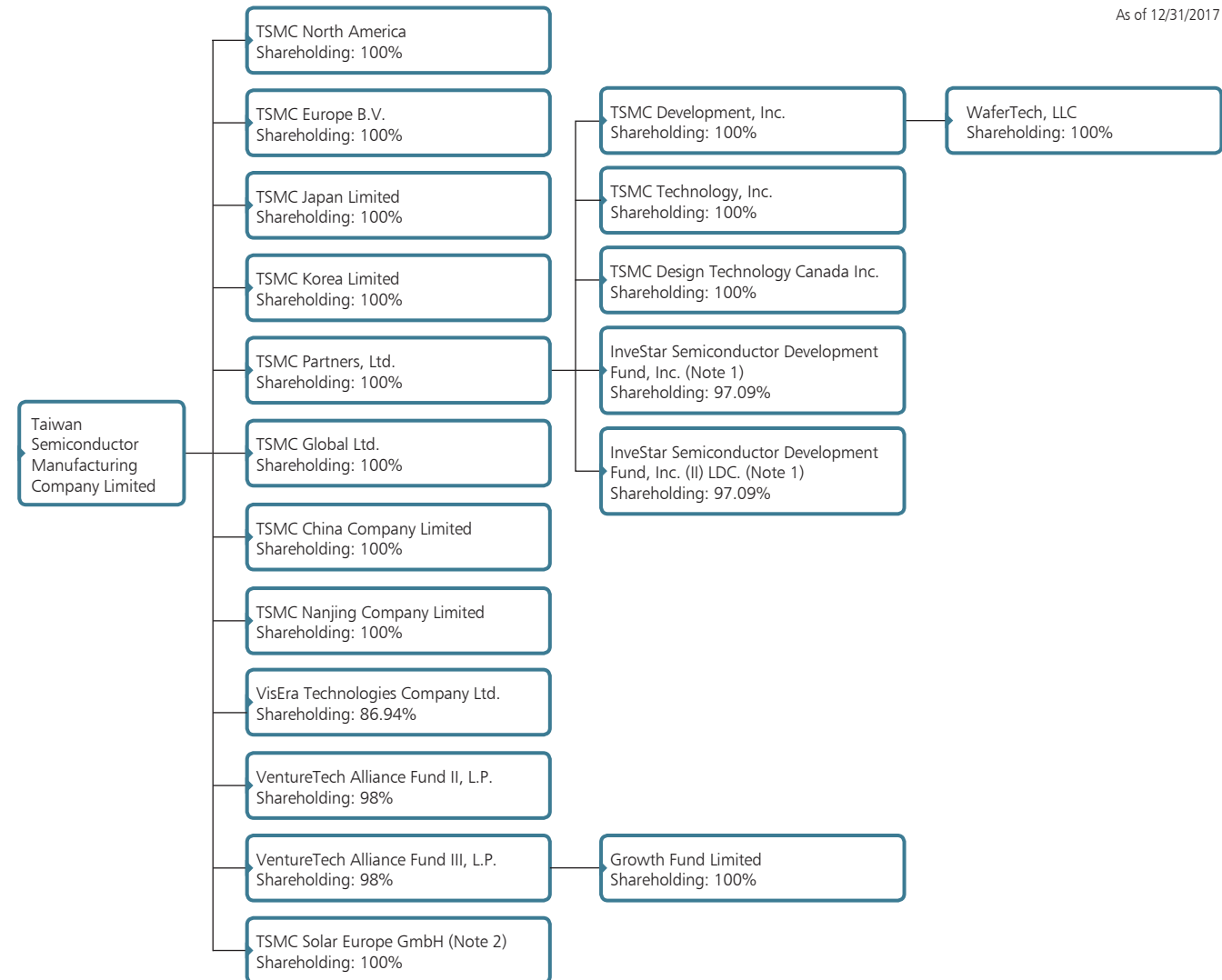
The image features a series of horizontal lines in various colors (pink, red, purple, blue, orange) that serve as a background. Overlaid on these lines are several abstract, colorful patterns: a cluster of overlapping circles in shades of blue and green, a series of wavy lines in orange and red, a blue and purple wave-like pattern, and a network of interconnected nodes and lines in orange and blue. The overall aesthetic is modern and digital.

TSMC is dedicated to creating value for stakeholders including shareholders/investors, government, customers, suppliers, employees, and society. We maintain active, positive relationships with all stakeholders to create win-win outcomes and collaborate for the greater good to build a better future together.

Subsidiary Information and Other Special Notes

8.1 Subsidiaries

8.1.1 TSMC Subsidiaries Chart



Note 1: InveStar Semiconductor Development Fund, Inc. and InveStar Semiconductor Development Fund, Inc. (II) LDC. are under liquidation procedures.
 Note 2: TSMC Solar Europe GmbH is under liquidation procedures.

8.1.2 Business Scope of TSMC and Its Subsidiaries

TSMC and its subsidiaries strive to provide the best foundry services. Subsidiaries in North America, Europe, Japan, China and South Korea are dedicated to instantly serving TSMC customers worldwide. WaferTech in the United States and TSMC China provide additional 8-inch wafer capacity. TSMC Nanjing will begin to provide additional 12-inch wafer capacity in 2018. Other subsidiaries support the Company's core foundry business with related services such as design service and investment in start-up companies involved in design, manufacturing, and other related businesses in the semiconductor industry.

8.1.3 TSMC Subsidiaries

In thousands of NT(USD, EUR, JPY, KRW, RMB, CAD)\$

As of 12/31/2017

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	Selling 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 2, 2006	Seoul, Korea	KRW 400,000	Customer service and supporting activities
TSMC China Company Limited	Aug. 04, 2003	Shanghai, China	RMB 4,502,080	Manufacturing, selling, testing, and computer-aided design of integrated circuits and other semiconductor devices
TSMC Nanjing Company Limited	May 16, 2016	Nanjing, China	RMB 6,133,276	Manufacturing, selling, testing, and computer-aided design of integrated circuits and other semiconductor devices
TSMC Technology, Inc.	Feb. 20, 1996	Delaware, U.S.	US\$ 0.001	Engineering support activities
InveStar Semiconductor Development Fund, Inc. (Note 1)	Sep. 10, 1996	Cayman Islands	US\$ 489	Investing in new start-up technology companies
InveStar Semiconductor Development Fund, Inc. (II) LDC. (Note 1)	Aug. 25, 2000	Cayman Islands	US\$ 0	Investing in new start-up technology companies
TSMC Development, Inc.	Feb. 16, 1996	Delaware, U.S.	US\$ 0.001	Investing in companies involved in the manufacturing related business in the semiconductor industry
WaferTech, LLC	Jun. 03, 1996	Delaware, U.S.	US\$ 0	Manufacturing, selling, 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 design, manufacture, and other related business in the semiconductor industry and other investment activities
TSMC Design Technology Canada Inc.	May 28, 2007	Ontario, Canada	CAD 2,434	Engineering support activities
TSMC Global Ltd.	Jul. 13, 2006	British Virgin Islands	US\$ 9,284,000	Investment activities
VentureTech Alliance Fund II, L.P.	Feb. 27, 2004	Cayman Islands	US\$ 8,450	Investing in new start-up technology companies
VentureTech Alliance Fund III, L.P.	Mar. 25, 2006	Cayman Islands	US\$ 96,522	Investing in new start-up technology companies
Growth Fund Limited	May 30, 2007	Cayman Islands	US\$ 2,154	Investing in new start-up technology companies
TSMC Solar Europe GmbH (Note 2)	Dec. 17, 2010	Hamburg, Germany	EUR 400	Selling of solar modules and related products and providing customer service
VisEra Technologies Company Ltd.	Dec. 1, 2003	Hsinchu, Taiwan	NT\$ 2,911,531	Engaged in manufacturing electronic spare parts and in researching, developing, designing, manufacturing, selling, packaging and testing of color filter

Note 1: InveStar Semiconductor Development Fund, Inc. and InveStar Semiconductor Development Fund, Inc. (II) LDC. have started the liquidation procedures.
 Note 2: The dissolution procedures of TSMC Solar Europe GmbH are expected to be completed by the end of June 2018.

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 12/31/2017

Company	Title	Name	Shareholding	
			Shares (Investment Amount)	% (Investment Holding %)
TSMC North America	Director Director President	Sylvia Fang Rick Cassidy David Keller	- - -	- - -
			TSMC holds 11,000,000 shares	100%
TSMC Europe B.V.	Director Director President	Wendell Huang Maria Marced Maria Marced	- - -	- - -
			TSMC holds 200 shares	100%
TSMC Japan Limited	Director Director Supervisor President	Chih-Chun Tsai Makoto Onodera Lora Ho Makoto Onodera	- - - -	- - - -
			TSMC holds 6,000 shares	100%
TSMC Korea Limited	Director Director Director	C.C.Pan Chih-Chun Tsai Wendell Huang	- - -	- - -
			TSMC holds 80,000 shares	100%
TSMC China Company Limited	Chairman Director Director Supervisor President	F.C. Tseng M.C. Tzeng L.C. Tu Lora Ho L.C. Tu	- - - - -	- - - - -
			(TSMC's investment US\$596,000,000)	(100%)
TSMC Nanjing Company Limited	Chairman Director Director Supervisor Supervisor President	C.C. Wei J.K.Wang Cliff Hou Lora Ho Sylvia Fang Roger Luo	- - - - - -	- - - - - -
			(TSMC's investment US\$920,000,000)	(100%)
TSMC Technology, Inc.	Chairman Director President	Lora Ho Cliff Hou Cliff Hou	- - -	- - -
			TSMC Partners, Ltd. holds 10 shares	100%
InveStar Semiconductor Development Fund, Inc. (Note 1)	Director	Wendell Huang	-	-
			TSMC Partners, Ltd. holds 582,523 shares	97.09%
InveStar Semiconductor Development Fund, Inc. (II) LDC (Note 1)	Director	Wendell Huang	-	-
			TSMC Partners, Ltd. holds 9,298,625 shares	97.09%
TSMC Development, Inc.	Chairman Director President	Lora Ho Sylvia Fang Lora Ho	- - -	- - -
			TSMC Partners, Ltd. holds 10 shares	100%

(Continued)

Company	Title	Name	Shareholding	
			Shares (Investment Amount)	% (Investment Holding %)
WaferTech, LLC	Director Director President	M.C. Tzeng (Note 3) Steve Tso (Note 3) Tsung-Chia Kuo	- - -	- - -
			TSMC Development, Inc. holds 293,636,833 shares	100%
TSMC Partners, Ltd.	Director Director President	Lora Ho Sylvia Fang Lora Ho	- - -	- - -
			TSMC holds 988,268,244 shares	100%
TSMC Design Technology Canada Inc.	Director Director Director President	Cliff Hou Cormac Michael O'Connell Sylvia Fang Cliff Hou	- - - -	- - - -
			TSMC Partners, Ltd. holds 2,300,000 shares	100%
TSMC Global Ltd.	Director Director	Lora Ho Sylvia Fang	- -	- -
			TSMC holds 9,284 shares	100%
VentureTech Alliance Fund II, L.P.	None	None	(TSMC's investment US\$8,151,905)	(98.00%)
VentureTech Alliance Fund III, L.P.	None	None	(TSMC's investment US\$94,591,952)	(98.00%)
Growth Fund Limited	None	None	(VentureTech Alliance Fund III, L.P.'s investment US\$2,153,768)	(100%)
TSMC Solar Europe GmbH (Note 2)	Liquidator	Liham Chu	-	-
			TSMC holds 800 shares	100%
VisEra Technologies Company Ltd.	Chairman Director Director Supervisor President	Robert Kuan J.K. Lin George Liu Wendell Huang S.C. Hsin	54,600 shares - - - -	0.02% - - - -
			TSMC holds 253,120,000 shares	86.94%

Note 1: InveStar Semiconductor Development Fund, Inc. and InveStar Semiconductor Development Fund, Inc. (II) LDC. have started the liquidation procedures.

Note 2: The dissolution procedures of TSMC Solar Europe GmbH are expected to be completed by the end of June 2018.

Note 3: Vice President J.K. Lin and Senior Director Wendell Huang replaced Senior Vice President and Chief Information Officer Dr. Steve Tso and Vice President M.C. Tzeng as TSMC's representative directors in WaferTech effective on March 8, 2018.

8.1.6 Operational Highlights of TSMC Subsidiaries

Unit: NT\$ thousands, except EPS (NT\$)

As of 12/31/2017

Company	Capital Stock	Assets	Liabilities	Net Worth	Net Revenues	Income (Loss) from Operation	Net Income (Loss)	Basic Earning (Loss) Per Share
TSMC North America	326,249	101,252,896	97,251,893	4,001,003	656,786,045	206,713	5,859	0.53
TSMC Europe B.V.	3,545	544,923	137,599	407,325	494,366	53,145	40,557	202,784.41
TSMC Japan Limited	78,870	179,703	50,257	129,446	209,193	8,819	3,600	600.07
TSMC Korea Limited	11,160	41,856	2,645	39,211	24,267	2,230	1,970	24.62
TSMC Development, Inc.	0.03	26,136,658	0	26,136,658	1,557,029	1,556,722	1,448,900	144,889,982.80
TSMC Partners, Ltd.	29,311,048	49,863,409	0	49,863,409	2,231,879	2,225,601	2,225,601	2.25
TSMC Global Ltd.	275,354,156	345,671,142	36,459,265	309,211,877	6,390,773	5,028,339	5,026,024	652,229.12
WaferTech, LLC	0	5,756,837	687,279	5,069,559	8,619,322	2,220,672	1,248,658	4.25
TSMC China Company Limited	20,504,723	56,428,282	5,266,467	51,161,815	21,728,470	8,900,991	8,938,933	NA
TSMC Nanjing Company Limited	27,934,006	55,413,191	28,344,818	27,068,373	0	(871,695)	(867,563)	NA
VisEra Technologies Company Ltd.	2,911,531	5,911,829	605,263	5,306,566	2,519,211	210,891	207,557	0.71
TSMC Technology, Inc.	0.03	1,057,567	538,951	518,616	1,908,259	90,888	18,990	1,899,043.20
TSMC Design Technology Canada Inc.	57,585	219,788	37,459	182,329	253,031	23,003	15,597	6.78
InveStar Semiconductor Development Fund, Inc.	14,502	513	6	507	52	44	44	0.07
InveStar Semiconductor Development Fund, Inc. (II) LDC.	0	1,052	187	864	446,855	378,299	378,299	39.50
VentureTech Alliance Fund II, L.P.	250,622	320,701	0	320,701	151,461	133,784	133,597	NA
VentureTech Alliance Fund III, L.P.	2,862,758	132,009	0	132,009	2,218	(25,234)	(25,234)	NA
TSMC Solar Europe GmbH	14,180	14,380	34,597	(20,217)	0	(12,629)	(12,706)	(15,882.38)
Growth Fund Limited	63,879	46,334	0	46,334	0	(1,385)	(1,385)	NA

8.2 Status of TSMC Common Shares and ADRs Acquired, Disposed of, and Held by Subsidiaries: None.

8.3 Special Notes

8.3.1 Private Placement Securities in 2017 and as of the Date of this Annual Report: None.

8.3.2 Regulatory Authorities' Legal Penalties to the Company or Its Employees, and the Company's Resulting Punishment on Its Employees for Violations of Internal Control System Provisions, Principal Deficiencies, and the State of Any Efforts to Make Improvements in 2017 and as of the Date of this Annual Report

In 2017 and as of the date of this Annual Report, the Company complied with the Taiwan Company Law and Securities Trading Act relevant laws and regulations. The competent authority issued a minor fine of NT\$20,000 for the deficiency of TSMC's overtime calculation rules. After communicating with the authority, TSMC has completed the remedial measures.

8.3.3 Any Events in 2017 and as of the Date of this Annual Report that Had Significant Impacts on Shareholders' Right or Security Prices as Stated in Item 3 Paragraph 2 of Article 36 of Securities and Exchange Law of Taiwan: None.

8.3.4 Other Necessary Supplement: None.

Contact Information

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TSMC Design Technology Canada Inc.

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TSMC Spokesperson

Name: Lora Ho
Title: Senior Vice President & CFO
Tel: +886-3-5054602 Fax: +886-3-5637000
Email: cyhsu@tsmc.com

TSMC Deputy Spokesperson/Corporate Communications

Name: Elizabeth Sun
Title: Senior Director, TSMC Corporate Communication Division
Tel: +886-3-5682085 Fax: +886-3-5637000
Email: elizabeth_sun@tsmc.com

Auditors

Company: Deloitte & Touche
Auditors: Yih-Hsin Kao, Yu-Feng Huang
Address: 12F, 156, Sec. 3, Min-Sheng E. Rd., Taipei 10596, Taiwan
R.O.C.
Tel: +886-2-25459988 Fax: +886-2-40516888
Website: <http://www.deloitte.com.tw>

Common Share Transfer Agent and Registrar

Company: The Transfer Agency Department of CTBC Bank
Address: 5F, 83, Sec. 1, Chung-Ching S. Rd., Taipei 10008, Taiwan
R.O.C.
Tel: +886-2-66365566 Fax: +886-2-23116723
Website: <http://www.ctcbank.com>

ADR Depository Bank

Company: Citibank, N.A.
Depository Receipts Services
Address: 388 Greenwich Street, New York, NY 10013, U.S.A.
Website: <http://www.citi.com/dr>
Tel: +1-877-2484237 (toll free)
Tel: +1-781-5754555 (out of US)
Fax: +1-201-3243284
E-mail: citibank@shareholders-online.com

TSMC's depository 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 <http://www.nyse.com> and <http://mops.twse.com.tw>



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**Taiwan Semiconductor Manufacturing
Company Limited and Subsidiaries**

**Consolidated Financial Statements for the
Years Ended December 31, 2017 and 2016 and
Independent Auditors' Report**

REPRESENTATION LETTER

The entities that are required to be included in the combined financial statements of Taiwan Semiconductor Manufacturing Company Limited as of and for the year ended December 31, 2017, under the Criteria Governing the Preparation of Affiliation Reports, Consolidated Business Reports and Consolidated Financial Statements of Affiliated Enterprises are the same as those included in the consolidated financial statements prepared in conformity with the International Financial Reporting Standard 10, "Consolidated Financial Statements." In addition, the information required to be disclosed in the combined financial statements is included in the consolidated financial statements. Consequently, Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries do not prepare a separate set of combined financial statements.

Very truly yours,

TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LIMITED

By

MORRIS CHANG
Chairman

February 13, 2018

INDEPENDENT AUDITORS' REPORT

The Board of Directors and Shareholders
Taiwan Semiconductor Manufacturing Company Limited

Opinion

We have audited the accompanying consolidated financial statements of Taiwan Semiconductor Manufacturing Company Limited and subsidiaries (the "Company"), which comprise the consolidated balance sheets as of December 31, 2017 and 2016, and the consolidated statements of comprehensive income, changes in equity and cash flows for the years then ended, and the notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Company as of December 31, 2017 and 2016, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers and the International Financial Reporting Standards (IFRS), International Accounting Standards (IAS), IFRIC Interpretations (IFRIC), and SIC Interpretations (SIC) endorsed and issued into effect by the Financial Supervisory Commission of the Republic of China.

Basis for Opinion

We conducted our audits in accordance with the Regulations Governing Auditing and Attestation of Financial Statements by Certified Public Accountants and auditing standards generally accepted in the Republic of China. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Company in accordance with The Norm of Professional Ethics for Certified Public Accountant of the Republic of China and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the year ended December 31, 2017. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matters for the Company's consolidated financial statements for the year ended December 31, 2017 are stated as follows:

Provision for sales returns and allowances

In consideration of business volume and market conditions, the Company provides a variety of business incentives to specific customers or products. The provision for sales returns and allowance is based on historical experience and the varying contractual terms. Please refer to Notes 4, 5 and 19 to the consolidated financial statements for the details of the information about provision for sales returns and allowances. Since the provision for sales returns and allowances is subject to accounting judgment and estimation, and the result

could also affect the net revenue in the consolidated financial statements, it has been identified as a key audit matter.

Our key audit procedures performed in respect of the above area included the following:

1. Understood and tested the design and operating effectiveness of the key controls over provision for sales returns and allowances;
2. Understood and assessed the reasonableness of assumptions made and methodology used in estimating provision for sales returns and allowances;
3. Sampled and inspected the sales contracts of main products by agreeing the contractual terms and performed an analysis to challenge the estimation on possibility that specific products could meet business incentives condition to verify the reasonableness of the accrual of the provision;
4. Performed a retrospective review to comparatively analyze the historical accuracy of judgments with reference to actual sales returns and allowance paid.

Timing to commence depreciation of property, plant and equipment (PP&E)

The Company continues to invest in capital expenditures to develop and build capacity in leading-edge technologies to meet customers' demand. Please refer to Notes 4 and 15 to the consolidated financial statements for the details of the information and accounting policy about the depreciation of PP&E. According to IAS 16, depreciation of PP&E should commence when the assets are available for their intended use. Due to the significant capital expenditures incurred by the Company, the appropriateness of the timing to commence depreciation of PP&E could have a material impact on its financial performance. Consequently, the validity of the timing to commence depreciation of PP&E is identified as a key audit matter.

Our key audit procedures performed in respect of the above area included the following:

1. Understood and tested the design and operating effectiveness of the key controls over the timing to commence depreciation of PP&E;
2. Understood the criteria the assets are defined as available for their intended use and the corresponding accounting treatments;
3. Sampled and reviewed the appropriateness of the timing for commencing depreciation after the assets met the criteria of available for use in current year;
4. Performed an observation on the physical count of equipment under installation and construction in progress; sampled and inspected the supporting documentation to verify that the status of equipment under installation and construction in progress are not available for use;
5. Sampled equipment under installation and construction in progress which met the criteria of available for use and were transferred in the subsequent period to evaluate the reasonableness of the timing for commencing depreciation;
6. Sampled and reviewed the appropriateness of the equipment under installation and construction in progress which are not available for their intended use.

Other Matter

We have also audited the parent company only financial statements of Taiwan Semiconductor Manufacturing Company Limited as of and for the years ended December 31, 2017 and 2016 on which we have issued an unmodified opinion.

Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers and the IFRS, IAS, IFRIC, and SIC endorsed and issued into effect by the Financial Supervisory Commission of the Republic of China, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance (including members of the Audit Committee) are responsible for overseeing the Company's financial reporting process.

Auditors' Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the auditing standards generally accepted in the Republic of China will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with the auditing standards generally accepted in the Republic of China, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

1. Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
2. Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
3. Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
4. Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Company to cease to continue as a going concern.

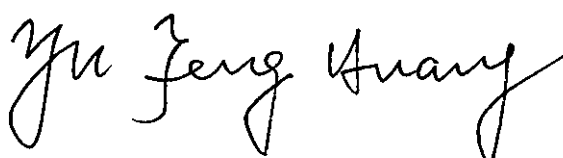
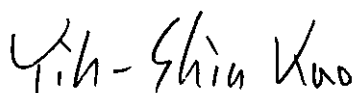
5. Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
6. Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Company to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements for the year ended December 31, 2017 and are therefore the key audit matters. We describe these matters in our auditors' report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partners on the audit resulting in this independent auditors' report are Yih-Shin Kao and Yu Feng Huang.



Deloitte & Touche
Taipei, Taiwan
Republic of China

February 13, 2018

Notice to Readers

The accompanying consolidated financial statements are intended only to present the consolidated financial position, financial performance and cash flows in accordance with accounting principles and practices generally accepted in the Republic of China and not those of any other jurisdictions. The standards, procedures and practices to audit such consolidated financial statements are those generally applied in the Republic of China.

For the convenience of readers, the independent auditors' report and the accompanying consolidated financial statements have been translated into English from the original Chinese version prepared and used in the Republic of China. If there is any conflict between the English version and the original Chinese version or any difference in the interpretation of the two versions, the Chinese-language independent auditors' report and consolidated financial statements shall prevail.

Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries

CONSOLIDATED BALANCE SHEETS
(In Thousands of New Taiwan Dollars)

	December 31, 2017		December 31, 2016	
	Amount	%	Amount	%
ASSETS				
CURRENT ASSETS				
Cash and cash equivalents (Note 6)	\$ 553,391,696	28	\$ 541,253,833	29
Financial assets at fair value through profit or loss (Note 7)	569,751	-	6,451,112	-
Available-for-sale financial assets (Notes 8 and 14)	93,374,153	5	67,788,767	4
Held-to-maturity financial assets (Note 9)	1,988,385	-	16,610,116	1
Hedging derivative financial assets (Note 10)	34,394	-	5,550	-
Notes and accounts receivable, net (Note 11)	121,133,248	6	128,335,271	7
Receivables from related parties (Note 34)	1,184,124	-	969,559	-
Other receivables from related parties (Note 34)	171,058	-	146,788	-
Inventories (Notes 5, 12 and 38)	73,880,747	4	48,682,233	3
Other financial assets (Notes 35 and 38)	7,253,114	-	4,100,475	-
Other current assets (Note 17)	4,222,440	-	3,385,422	-
Total current assets	857,203,110	43	817,729,126	44
NONCURRENT ASSETS				
Held-to-maturity financial assets (Note 9)	18,833,329	1	22,307,561	1
Financial assets carried at cost (Note 13)	4,874,257	-	4,102,467	-
Investments accounted for using equity method (Notes 5 and 14)	17,861,488	1	19,743,888	1
Property, plant and equipment (Notes 5 and 15)	1,062,542,322	53	997,777,687	53
Intangible assets (Notes 5 and 16)	14,175,140	1	14,614,846	1
Deferred income tax assets (Notes 5 and 29)	12,105,463	1	8,271,421	-
Refundable deposits	1,283,414	-	407,874	-
Other noncurrent assets (Note 17)	2,983,120	-	1,500,432	-
Total noncurrent assets	1,134,658,533	57	1,068,726,176	56
TOTAL	\$ 1,991,861,643	100	\$ 1,886,455,302	100
LIABILITIES AND EQUITY				
CURRENT LIABILITIES				
Short-term loans (Note 18)	\$ 63,766,850	3	\$ 57,958,200	3
Financial liabilities at fair value through profit or loss (Note 7)	26,709	-	191,135	-
Hedging derivative financial liabilities (Note 10)	15,562	-	-	-
Accounts payable	28,412,807	1	26,062,351	2
Payables to related parties (Note 34)	1,656,356	-	1,262,174	-
Salary and bonus payable	14,254,871	1	13,681,817	1
Accrued profit sharing bonus to employees and compensation to directors and supervisors (Notes 23 and 31)	23,419,135	1	22,894,006	1
Payables to contractors and equipment suppliers	55,723,774	3	63,154,514	3
Income tax payable (Notes 5 and 29)	33,479,311	2	40,306,054	2
Provisions (Notes 5 and 19)	13,961,787	1	18,037,789	1
Long-term liabilities - current portion (Note 20)	58,401,122	3	38,109,680	2
Accrued expenses and other current liabilities (Note 22)	65,588,396	3	36,581,553	2
Total current liabilities	358,706,680	18	318,239,273	17
NONCURRENT LIABILITIES				
Bonds payable (Note 20)	91,800,000	5	153,093,557	8
Long-term bank loans	-	-	21,780	-
Deferred income tax liabilities (Notes 5 and 29)	302,205	-	141,183	-
Net defined benefit liability (Notes 5 and 21)	8,850,704	1	8,551,408	-
Guarantee deposits (Note 22)	7,586,790	-	14,670,433	1
Others	1,855,621	-	1,686,542	-
Total noncurrent liabilities	110,395,320	6	178,164,903	9
Total liabilities	469,102,000	24	496,404,176	26
EQUITY ATTRIBUTABLE TO SHAREHOLDERS OF THE PARENT				
Capital stock (Note 23)	259,303,805	13	259,303,805	14
Capital surplus (Note 23)	56,309,536	3	56,272,304	3
Retained earnings (Note 23)				
Appropriated as legal capital reserve	241,722,663	12	208,297,945	11
Unappropriated earnings	991,639,347	49	863,710,224	46
	1,233,362,010	61	1,072,008,169	57
Others (Note 23)	(26,917,818)	(1)	1,663,983	-
Equity attributable to shareholders of the parent	1,522,057,533	76	1,389,248,261	74
NONCONTROLLING INTERESTS	702,110	-	802,865	-
Total equity	1,522,759,643	76	1,390,051,126	74
TOTAL	\$ 1,991,861,643	100	\$ 1,886,455,302	100

The accompanying notes are an integral part of the consolidated financial statements.

Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (In Thousands of New Taiwan Dollars, Except Earnings Per Share)

	2017		2016	
	Amount	%	Amount	%
NET REVENUE (Notes 5, 24, 34 and 40)	\$ 977,447,241	100	\$ 947,938,344	100
COST OF REVENUE (Notes 5, 12, 31, 34 and 38)	<u>482,616,286</u>	<u>49</u>	<u>473,077,173</u>	<u>50</u>
GROSS PROFIT BEFORE UNREALIZED GROSS PROFIT ON SALES TO ASSOCIATES	494,830,955	51	474,861,171	50
UNREALIZED GROSS PROFIT ON SALES TO ASSOCIATES	<u>(4,553)</u>	<u>-</u>	<u>(29,073)</u>	<u>-</u>
GROSS PROFIT	<u>494,826,402</u>	<u>51</u>	<u>474,832,098</u>	<u>50</u>
OPERATING EXPENSES (Notes 5, 31 and 34)				
Research and development	80,732,463	8	71,207,703	7
General and administrative	21,196,717	2	19,795,593	2
Marketing	<u>5,972,488</u>	<u>1</u>	<u>5,900,837</u>	<u>1</u>
Total operating expenses	<u>107,901,668</u>	<u>11</u>	<u>96,904,133</u>	<u>10</u>
OTHER OPERATING INCOME AND EXPENSES, NET (Notes 16, 25 and 31)	<u>(1,365,511)</u>	<u>(1)</u>	<u>29,813</u>	<u>-</u>
INCOME FROM OPERATIONS (Note 40)	<u>385,559,223</u>	<u>39</u>	<u>377,957,778</u>	<u>40</u>
NON-OPERATING INCOME AND EXPENSES				
Share of profits of associates (Note 14)	2,985,941	1	3,495,600	-
Other income (Note 26)	9,610,294	1	6,454,901	1
Foreign exchange gain (loss), net (Note 39)	(1,509,473)	-	1,161,322	-
Finance costs (Note 27)	(3,330,313)	-	(3,306,153)	-
Other gains and losses, net (Note 28)	<u>2,817,358</u>	<u>-</u>	<u>195,932</u>	<u>-</u>
Total non-operating income and expenses	<u>10,573,807</u>	<u>2</u>	<u>8,001,602</u>	<u>1</u>
INCOME BEFORE INCOME TAX	396,133,030	41	385,959,380	41
INCOME TAX EXPENSE (Notes 5 and 29)	<u>52,986,182</u>	<u>6</u>	<u>51,621,144</u>	<u>6</u>
NET INCOME	<u>343,146,848</u>	<u>35</u>	<u>334,338,236</u>	<u>35</u>

(Continued)

Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (In Thousands of New Taiwan Dollars, Except Earnings Per Share)

	2017		2016	
	Amount	%	Amount	%
OTHER COMPREHENSIVE INCOME (LOSS)				
(Notes 14, 21, 23 and 29)				
Items that will not be reclassified subsequently to profit or loss:				
Remeasurement of defined benefit obligation	\$ (254,681)	-	\$ (1,057,220)	-
Share of other comprehensive loss of associates	(20,853)	-	(19,961)	-
Income tax benefit related to items that will not be reclassified subsequently	<u>30,562</u>	<u>-</u>	<u>126,867</u>	<u>-</u>
	<u>(244,972)</u>	<u>-</u>	<u>(950,314)</u>	<u>-</u>
Items that may be reclassified subsequently to profit or loss:				
Exchange differences arising on translation of foreign operations	(28,259,627)	(3)	(9,379,477)	(1)
Changes in fair value of available-for-sale financial assets	(218,832)	-	(692,523)	-
Cash flow hedges	4,683	-	-	-
Share of other comprehensive income (loss) of associates	(99,347)	-	16,301	-
Income tax expense related to items that may be reclassified subsequently	<u>(3,536)</u>	<u>-</u>	<u>(61,176)</u>	<u>-</u>
	<u>(28,576,659)</u>	<u>(3)</u>	<u>(10,116,875)</u>	<u>(1)</u>
Other comprehensive loss for the year, net of income tax	<u>(28,821,631)</u>	<u>(3)</u>	<u>(11,067,189)</u>	<u>(1)</u>
TOTAL COMPREHENSIVE INCOME FOR THE YEAR	<u>\$ 314,325,217</u>	<u>32</u>	<u>\$ 323,271,047</u>	<u>34</u>
NET INCOME ATTRIBUTABLE TO:				
Shareholders of the parent	\$ 343,111,476	35	\$ 334,247,180	35
Noncontrolling interests	<u>35,372</u>	<u>-</u>	<u>91,056</u>	<u>-</u>
	<u>\$ 343,146,848</u>	<u>35</u>	<u>\$ 334,338,236</u>	<u>35</u>
TOTAL COMPREHENSIVE INCOME ATTRIBUTABLE TO:				
Shareholders of the parent	\$ 314,294,993	32	\$ 323,186,736	34
Noncontrolling interests	<u>30,224</u>	<u>-</u>	<u>84,311</u>	<u>-</u>
	<u>\$ 314,325,217</u>	<u>32</u>	<u>\$ 323,271,047</u>	<u>34</u>

(Continued)

Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (In Thousands of New Taiwan Dollars, Except Earnings Per Share)

	<u>2017</u>	<u>2016</u>
	Income Attributable to Shareholders of the Parent	Income Attributable to Shareholders of the Parent
EARNINGS PER SHARE (NT\$, Note 30)		
Basic earnings per share	<u>\$ 13.23</u>	<u>\$ 12.89</u>
Diluted earnings per share	<u>\$ 13.23</u>	<u>\$ 12.89</u>

The accompanying notes are an integral part of the consolidated financial statements.

(Concluded)

Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY (In Thousands of New Taiwan Dollars, Except Dividends Per Share)

	Equity Attributable to Shareholders of the Parent											Total Equity		
	Capital Stock - Common Stock				Retained Earnings		Foreign Currency Translation Reserve		Unrealized Gain/Loss From Available-for-sale Financial Assets		Others			
	Shares (In Thousands)	Amount	Capital Surplus	Legal Capital Reserve	Unappropriated Earnings	Total	Reserve	Total	Cash Flow Hedges Reserve	Stock-Based Employee Compensation	Total		Noncontrolling Interests	
BALANCE, JANUARY 1, 2016	25,930,380	\$ 259,303,805	\$ 56,300,215	\$177,640,561	\$ 716,653,025	\$ 894,293,586	\$ 11,039,949	\$ 734,771	\$ (607)	\$ -	\$ 11,774,113	\$ 962,760	\$1,222,654,479	
Appropriations of prior year's earnings	-	-	-	-	(30,657,384)	-	-	-	-	-	-	-	-	
Legal capital reserve	-	-	-	30,657,384	(155,582,283)	-	-	-	-	-	-	-	(155,582,283)	
Cash dividends to shareholders - NTS\$ per share	-	-	-	-	(186,239,667)	-	-	-	-	-	-	-	(155,582,283)	
Total	-	-	-	30,657,384	(186,239,667)	(155,582,283)	-	-	-	-	-	-	(155,582,283)	
Net income in 2016	-	-	-	-	334,247,180	334,247,180	-	-	-	-	-	91,056	334,338,236	
Other comprehensive income (loss) in 2016, net of income tax	-	-	-	-	(950,314)	(950,314)	(9,378,712)	(732,130)	712	-	(10,110,130)	(6,745)	(11,067,189)	
Total comprehensive income (loss) in 2016	-	-	-	-	333,296,866	333,296,866	(9,378,712)	(732,130)	712	-	(10,110,130)	84,311	323,271,047	
Disposal of investments accounted for using equity method	-	-	(56,169)	-	-	-	-	-	-	-	-	-	(56,169)	
Adjustments to share of changes in equities of associates	-	-	21,221	-	-	-	-	-	-	-	21,221	9	21,230	
From share of changes in equities of subsidiaries	-	-	7,037	-	-	-	-	-	-	-	7,037	(7,037)	-	
Decrease in noncontrolling interests	-	-	-	-	-	-	-	-	-	-	-	(235,224)	(235,224)	
Effect of disposal of subsidiary	-	-	-	-	-	-	-	-	-	-	-	(1,954)	(1,954)	
BALANCE, DECEMBER 31, 2016	25,930,380	\$ 259,303,805	\$ 56,272,304	208,297,945	863,710,224	1,072,008,169	1,661,237	2,641	105	-	1,663,983	802,865	1,390,051,126	
Appropriations of prior year's earnings	-	-	-	33,424,718	(33,424,718)	-	-	-	-	-	-	-	-	
Legal capital reserve	-	-	-	-	(181,512,663)	(181,512,663)	-	-	-	-	-	-	(181,512,663)	
Cash dividends to shareholders - NTS\$ per share	-	-	-	33,424,718	(214,937,381)	(181,512,663)	-	-	-	-	-	-	(181,512,663)	
Total	-	-	-	33,424,718	(214,937,381)	(181,512,663)	-	-	-	-	-	-	(181,512,663)	
Net income in 2017	-	-	-	-	343,111,476	343,111,476	-	-	-	-	-	35,372	343,146,848	
Other comprehensive income (loss) in 2017, net of income tax	-	-	-	-	(244,972)	(244,972)	(28,358,917)	(216,715)	4,121	-	(28,571,511)	(5,148)	(28,821,631)	
Total comprehensive income (loss) in 2017	-	-	-	-	342,866,504	342,866,504	(28,358,917)	(216,715)	4,121	-	(28,571,511)	30,224	314,325,217	
Adjustments to share of changes in equities of associates	-	-	7,085	-	-	-	-	-	-	(10,290)	(3,205)	-	(3,205)	
From share of changes in equities of subsidiaries	-	-	10,994	-	-	-	-	-	-	-	10,994	(10,994)	-	
Donation from shareholders	-	-	19,153	-	-	-	-	-	-	-	19,153	1,684	20,837	
Decrease in noncontrolling interests	-	-	-	-	-	-	-	-	-	-	-	(113,675)	(113,675)	
Effect of disposal of subsidiary	-	-	-	-	-	-	-	-	-	-	-	(7,994)	(7,994)	
BALANCE, DECEMBER 31, 2017	25,930,380	\$ 259,303,805	\$ 56,309,536	\$ 241,722,663	\$ 991,639,347	\$1,233,362,010	\$ (26,697,680)	\$ (214,074)	\$ 4,226	\$ (10,290)	\$ (26,917,818)	\$ 702,110	\$1,522,759,643	

The accompanying notes are an integral part of the consolidated financial statements.

Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries

CONSOLIDATED STATEMENTS OF CASH FLOWS

(In Thousands of New Taiwan Dollars)

	2017	2016
CASH FLOWS FROM OPERATING ACTIVITIES		
Income before income tax	\$ 396,133,030	\$ 385,959,380
Adjustments for:		
Depreciation expense	255,795,962	220,084,998
Amortization expense	4,346,736	3,743,406
Finance costs	3,330,313	3,306,153
Share of profits of associates	(2,985,941)	(3,495,600)
Interest income	(9,464,706)	(6,317,500)
Loss (gain) on disposal or retirement of property, plant and equipment, net	1,097,908	(46,548)
Impairment loss on intangible assets	13,520	-
Impairment loss on financial assets	29,603	122,240
Loss (gain) on disposal of available-for-sale financial assets, net	(76,986)	4,014
Gain on disposal of financial assets carried at cost, net	(12,809)	(37,241)
Loss on disposal of investments accounted for using equity method, net	-	259,960
Loss (gain) from disposal of subsidiaries	(17,343)	36,105
Unrealized gross profit on sales to associates	4,553	29,073
Gain on foreign exchange, net	(9,118,580)	(2,656,406)
Dividend income	(145,588)	(137,401)
Loss (gain) arising from fair value hedges, net	30,293	(16,973)
Changes in operating assets and liabilities:		
Financial instruments at fair value through profit or loss	5,645,093	(6,326,561)
Notes and accounts receivable, net	1,061,805	(49,342,698)
Receivables from related parties	(214,565)	(463,837)
Other receivables from related parties	(13,873)	(21,770)
Inventories	(25,229,101)	18,370,037
Other financial assets	(502,306)	(41,554)
Other current assets	12,085	94,512
Other noncurrent assets	(1,276,130)	(349,771)
Accounts payable	2,572,072	7,295,491
Payables to related parties	394,182	139,818
Salary and bonus payable	582,054	1,979,775
Accrued profit sharing bonus to employees and compensation to directors and supervisors	525,129	1,935,113
Accrued expenses and other current liabilities	30,435,424	3,693,638
Provisions	(4,057,900)	7,931,877
Net defined benefit liability	44,615	46,163
Cash generated from operations	648,938,549	585,777,893
Income taxes paid	(63,620,382)	(45,943,301)
Net cash generated by operating activities	<u>585,318,167</u>	<u>539,834,592</u>
CASH FLOWS FROM INVESTING ACTIVITIES		
Acquisitions of:		
Available-for-sale financial assets	(100,510,905)	(83,275,573)
Held-to-maturity financial assets	(1,997,076)	(33,625,353)
Financial assets carried at cost	(1,313,124)	(533,745)
Property, plant and equipment	(330,588,188)	(328,045,270)
Intangible assets	(4,480,588)	(4,243,087)
Land use right	(819,694)	(805,318)

(Continued)

Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries

CONSOLIDATED STATEMENTS OF CASH FLOWS

(In Thousands of New Taiwan Dollars)

	2017	2016
Proceeds from disposal or redemption of:		
Available-for-sale financial assets	\$ 69,480,675	\$ 29,967,979
Held-to-maturity financial assets	17,980,640	10,550,000
Financial assets carried at cost	58,237	160,498
Property, plant and equipment	326,232	98,069
Proceeds from return of capital of financial assets carried at cost	14,828	65,087
Derecognition of hedging derivative financial instruments	33,008	8,868
Interest received	9,526,253	6,353,195
Proceeds from government grants - property, plant and equipment	2,629,747	738,643
Proceeds from government grants - land use right and others	1,811	798,469
Cash outflow from disposal of subsidiary	(4,080)	-
Other dividends received	145,588	137,420
Dividends received from investments accounted for using equity method	4,245,772	5,478,790
Refundable deposits paid	(1,326,983)	(144,982)
Refundable deposits refunded	432,944	169,912
Decrease in receivables for temporary payments	-	706,718
	<u>(336,164,903)</u>	<u>(395,439,680)</u>
Net cash used in investing activities		
	<u>(336,164,903)</u>	<u>(395,439,680)</u>
CASH FLOWS FROM FINANCING ACTIVITIES		
Increase in short-term loans	10,394,290	18,968,936
Repayment of bonds	(38,100,000)	(23,471,600)
Repayment of long-term bank loans	(31,460)	(8,540)
Interest paid	(3,482,703)	(3,302,420)
Guarantee deposits received	950,928	6,354,677
Guarantee deposits refunded	(3,823,183)	(523,234)
Cash dividends	(181,512,663)	(155,582,283)
Donation from shareholders	20,837	-
Decrease in noncontrolling interests	(113,675)	(235,733)
	<u>(215,697,629)</u>	<u>(157,800,197)</u>
Net cash used in financing activities		
	<u>(215,697,629)</u>	<u>(157,800,197)</u>
EFFECT OF EXCHANGE RATE CHANGES ON CASH AND CASH EQUIVALENTS		
	<u>(21,317,772)</u>	<u>(8,029,812)</u>
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	12,137,863	(21,435,097)
CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR	<u>541,253,833</u>	<u>562,688,930</u>
CASH AND CASH EQUIVALENTS, END OF YEAR	<u>\$ 553,391,696</u>	<u>\$ 541,253,833</u>

The accompanying notes are an integral part of the consolidated financial statements.

(Concluded)

Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS FOR THE YEARS ENDED DECEMBER 31, 2017 AND 2016 (Amounts in Thousands of New Taiwan Dollars, Unless Specified Otherwise)

1. GENERAL

Taiwan Semiconductor Manufacturing Company Limited (TSMC), a Republic of China (R.O.C.) corporation, was incorporated on February 21, 1987. TSMC is a dedicated foundry in the semiconductor industry which engages mainly in the manufacturing, selling, packaging, testing and computer-aided design of integrated circuits and other semiconductor devices and the manufacturing of masks.

On September 5, 1994, TSMC's shares were listed on the Taiwan Stock Exchange (TWSE). On October 8, 1997, TSMC listed some of its shares of stock on the New York Stock Exchange (NYSE) in the form of American Depositary Shares (ADSs).

The address of its registered office and principal place of business is No. 8, Li-Hsin Rd. 6, Hsinchu Science Park, Taiwan. The principal operating activities of TSMC's subsidiaries are described in Note 4.

2. THE AUTHORIZATION OF FINANCIAL STATEMENTS

The accompanying consolidated financial statements were approved and authorized for issue by the Board of Directors on February 13, 2018.

3. APPLICATION OF NEW AND REVISED INTERNATIONAL FINANCIAL REPORTING STANDARDS

- a. Initial application of the amendments to the Regulations Governing the Preparation of Financial Reports by Securities Issuers and the International Financial Reporting Standards (IFRS), International Accounting Standards (IAS), IFRIC Interpretations (IFRIC), and SIC Interpretations (SIC) (collectively, "IFRSs") endorsed and issued into effect by the Financial Supervisory Commission (FSC)

Except for the following, the initial application of the amendments to the Regulations Governing the Preparation of Financial Reports by Securities Issuers and the IFRSs endorsed and issued into effect by the FSC did not have a significant effect on TSMC and its subsidiaries' (collectively as the "Company") accounting policies:

- 1) Amendments to the Regulations Governing the Preparation of Financial Reports by Securities Issuers

The amendments stipulate that other companies or institutions of which the chairman of the board of directors or president serves as the chairman of the board of directors or the president, or is the spouse or second immediate family of the chairman of the board of directors or president of the Company are deemed to have a substantive related party relationship, unless it can be demonstrated that no control, joint control, or significant influence exists. Furthermore, the amendments require the disclosure of the names of the related parties and the relationship with whom the Company has transaction. If the transaction or balance with a specific related party is 10% or more of the Company's respective total transaction or balance, such transaction should be separately disclosed by the name of each related party.

When the amendments are applied retrospectively from January 1, 2017, the disclosure of related party transactions is enhanced, please refer to Note 34.

- b. The IFRSs issued by International Accounting Standards Board (IASB) and endorsed by FSC with effective date starting 2018

<u>New, Revised or Amended Standards and Interpretations</u>	<u>Effective Date Issued by IASB</u>
Annual Improvements to IFRSs 2014-2016 Cycle	Note 1
Amendment to IFRS 2 “Classification and Measurement of Share-based Payment Transactions”	January 1, 2018
IFRS 9 “Financial Instruments”	January 1, 2018
Amendments to IFRS 9 and IFRS 7 “Mandatory Effective Date of IFRS 9 and Transition Disclosure”	January 1, 2018
IFRS 15 “Revenue from Contracts with Customers”	January 1, 2018
Amendment to IFRS 15 “Clarifications to IFRS 15”	January 1, 2018
Amendment to IAS 7 “Disclosure Initiative”	January 1, 2017
Amendment to IAS 12 “Recognition of Deferred Tax Assets for Unrealized Losses”	January 1, 2017
IFRIC 22 “Foreign Currency Transactions and Advance Consideration”	January 1, 2018

Note 1: The amendment to IFRS 12 is retrospectively applied for annual periods beginning on or after January 1, 2017; the amendment to IAS 28 is retrospectively applied for annual periods beginning on or after January 1, 2018.

Except for the following items, the Company believes that the adoption of aforementioned standards or interpretations will not have a significant effect on the Company’s accounting policies.

- 1) IFRS 9 “Financial Instruments” and related amendments

Classification, measurement and impairment of financial assets

All recognized financial assets currently in the scope of IAS 39, “Financial Instruments: Recognition and Measurement,” will be subsequently measured at either the amortized cost or the fair value. The classification and measurement requirements in IFRS 9 are stated as follows:

For the invested debt instruments, if the contractual cash flows that are solely for payments of principal and interest on the principal amount outstanding, the classification and measurement requirements are stated as follows:

- a) If the objective of business model is to hold the financial asset to collect the contractual cash flows, such assets are measured at the amortized cost. Interest revenue should be recognized in profit or loss by using the effective interest method, continuously assessed for impairment and the impairment loss or reversal of impairment loss should be recognized in profit and loss.
- b) If the objective of business model is to hold the financial asset both to collect the contractual cash flows and to sell the financial assets, such assets are measured at fair value through other comprehensive income (FVTOCI) and are continuously assessed for impairment. Interest revenue should be recognized in profit or loss by using the effective interest method. A gain or loss on a financial asset measured at fair value through other comprehensive income should be recognized in other comprehensive income, except for impairment gains or losses and foreign exchange gains and losses. When such financial asset is derecognized or reclassified, the cumulative gain or loss previously recognized in other comprehensive income is reclassified from equity to profit or loss.

The other financial assets which do not meet the aforementioned criteria should be measured at the fair value through profit or loss (FVTPL). However, the entity may irrevocably designate an investment in equity instruments that is not held for trading as measured at FVTOCI. All relevant gains and losses shall be recognized in other comprehensive income, except for dividends which are recognized in profit or loss. No subsequent impairment assessment is required, and the cumulative gain or loss previously recognized in other comprehensive income cannot be reclassified from equity to profit or loss.

IFRS 9 adds a new expected loss impairment model to measure the impairment of financial assets. A loss allowance for expected credit losses should be recognized on financial assets measured at amortized cost and investments in debt instruments measured at fair value through other comprehensive income. If the credit risk on a financial instrument has not increased significantly since initial recognition, the loss allowance for that financial instrument should be measured at an amount equal to 12-month expected credit losses. If the credit risk on a financial instrument has increased significantly since initial recognition and is not deemed to be a low credit risk, the loss allowance for that financial instrument should be measured at an amount equal to the lifetime expected credit losses. A simplified approach is allowed for accounts receivables and the loss allowance could be measured at an amount equal to lifetime expected credit losses.

The Company elects not to restate prior reporting period when applying the requirements for the classification, measurement and impairment of financial assets and financial liabilities under IFRS 9 with the cumulative effect of the initial application recognized at the date of initial application.

The anticipated impact on measurement categories, carrying amount and related reconciliation for each class of the Company's financial assets and financial liabilities when retrospectively applying IFRS 9 on January 1, 2018 is detailed below:

Financial Assets	Measurement Category		Carrying Amount		Note
	IAS 39	IFRS 9	IAS 39	IFRS 9	
Cash and cash equivalents	Loans and receivables	Amortized cost	\$ 553,391,696	\$ 553,391,696	(1)
Derivatives	Held for trading	Mandatorily at FVTPL	569,751	569,751	
	Hedging instruments	Hedging instruments	34,394	34,394	
Equity securities	Available-for-sale	FVTOCI	7,422,311	8,389,438	(2)
Debt securities	Available-for-sale	Mandatorily at FVTPL	-	779,489	(3)
		FVTOCI	90,826,099	90,046,610	(3)
	Held-to-maturity	Amortized cost	20,821,714	20,813,462	(4)
Notes and accounts receivable (including related parties), other receivables and refundable deposits	Loans and receivables	Amortized cost	131,024,958	131,269,731	(1)
Financial Liabilities					
Derivatives	Held for trading	Mandatorily at FVTPL	\$ 26,709	\$ 26,709	
	Hedging instruments	Hedging instruments	15,562	15,562	
Short-term loans, accounts payable (including related parties), payables to contractors and equipment suppliers, accrued expenses and other current liabilities, bonds payable and guarantee deposits	Amortized cost	Amortized cost	340,501,266	340,501,266	

Financial Assets	Carrying Amount as of December 31, 2017 (IAS 39)	Reclassifications	Remeasurements	Carrying Amount as of January 1, 2018 (IFRS 9)	Retained Earnings Effect on January 1, 2018	Other Equity Effect on January 1, 2018	Note
FVTPL	\$ 569,751	\$ -	\$ -	\$ 569,751	\$ -	\$ -	
- Debt instruments							
Add: From available for sale							
	<u>-</u>	<u>779,489</u>	<u>-</u>	<u>779,489</u>	<u>(10,085)</u>	<u>10,085</u>	(3)
	<u>569,751</u>	<u>779,489</u>	<u>-</u>	<u>1,349,240</u>	<u>(10,085)</u>	<u>10,085</u>	
FVTOCI	-	-	-	-	-	-	
- Equity instruments							
Add: From available for sale							
	-	7,422,311	967,127	8,389,438	1,294,528	(325,858)	(2)
- Debt instruments							
Add: From available for sale							
	<u>-</u>	<u>90,046,610</u>	<u>-</u>	<u>90,046,610</u>	<u>(30,658)</u>	<u>30,658</u>	(3)
	<u>-</u>	<u>97,468,921</u>	<u>967,127</u>	<u>98,436,048</u>	<u>1,263,870</u>	<u>(295,200)</u>	
Amortized cost	-	-	-	-	-	-	
Add: From held to maturity							
	-	20,821,714	(8,252)	20,813,462	(8,252)	-	(4)
Add: From loans and receivables							
	<u>-</u>	<u>684,416,654</u>	<u>244,773</u>	<u>684,661,427</u>	<u>244,773</u>	<u>-</u>	(1)
	<u>-</u>	<u>705,238,368</u>	<u>236,521</u>	<u>705,474,889</u>	<u>236,521</u>	<u>-</u>	
Hedging instruments	<u>34,394</u>	<u>-</u>	<u>-</u>	<u>34,394</u>	<u>-</u>	<u>-</u>	
Total	<u>\$ 604,145</u>	<u>\$ 803,486,778</u>	<u>\$ 1,203,648</u>	<u>\$ 805,294,571</u>	<u>\$ 1,490,306</u>	<u>\$ (285,115)</u>	

	Carrying Amount as of December 31, 2017 (IAS 39)	Adjustments Arising from Initial Application	Carrying Amount as of January 1, 2018 (IFRS 9)	Retained Earnings Effect on January 1, 2018	Other Equity Effect on January 1, 2018	Note
Investments accounted for using equity method	\$ 17,861,488	\$ 8,258	\$ 17,869,746	\$ 33,984	\$ (25,726)	(5)

- (1) Cash and cash equivalents, notes and accounts receivable (including related parties), other receivables and refundable deposits were classified as loans and receivables under IAS 39 are now classified at amortized cost with assessment of future 12-month or lifetime expected credit loss under IFRS 9. As a result of retrospective application, the adjustments for accounts receivable would result in a decrease in loss of allowance of NT\$244,773 thousand and an increase in retained earnings of NT\$244,773 thousand on January 1, 2018.
- (2) As equity investments that were previously classified as available-for-sale financial assets under IAS 39 are not held for trading, the Company elected to designate all of these investments as at FVTOCI under IFRS 9. As a result, the related other equity-unrealized gain/loss on available-for-sale financial assets of NT\$228,304 thousand is reclassified to increase other equity - unrealized gain/loss on financial assets at FVTOCI.

As equity investments previously measured at cost under IAS 39 are remeasured at fair value under IFRS 9, the adjustments would result in an increase in financial assets at FVTOCI of NT\$967,127 thousand, an increase in other equity-unrealized gain/loss on financial assets at FVTOCI of NT\$968,670 thousand and a decrease in noncontrolling interests of NT\$1,543 thousand on January 1, 2018.

For those equity investments previously classified as available-for-sale financial assets (including measured at cost financial assets) under IAS 39, the impairment losses that the Company had recognized have been accumulated in retained earnings. Since these investments were designated as at FVTOCI under IFRS 9 and no impairment assessment is required, the adjustments would result in a decrease in other equity - unrealized gain/loss on financial assets at FVTOCI of NT\$1,294,528 thousand and an increase in retained earnings of NT\$1,294,528 thousand on January 1, 2018.

- (3) Debt investments were previously classified as available-for-sale financial assets under IAS 39. Under IFRS 9, except for debt instruments of NT\$779,489 thousand whose contractual cash flows are not solely payments of principal and interest on the principal outstanding and therefore are classified as at FVTPL with the related other equity-unrealized gain/loss on available-for-sale financial assets of NT\$10,085 thousand being consequently reclassified to decrease retained earnings, the remaining debt investments are classified as at FVTOCI with assessment of future 12-month expected credit loss because these investments are held within a business model whose objective is both to collect the contractual cash flows and sell the financial assets. The related other equity-unrealized gain/loss on available-for-sale financial assets of NT\$434,403 thousand is reclassified to decrease other equity-unrealized gain/loss on financial assets at FVTOCI. As a result of retrospective application of future 12-month expected credit loss, the adjustments would result in an increase in other equity - unrealized gain/loss on financial assets at FVTOCI of NT\$30,658 thousand and a decrease in retained earnings of NT\$30,658 thousand on January 1, 2018.
- (4) Debt investments previously classified as held-to-maturity financial assets and measured at amortized cost under IAS 39 are classified as measured at amortized cost with assessment of future 12-month expected credit loss under IFRS 9 because the contractual cash flows are solely payments of principal and interest on the principal outstanding and these investments are held within a business model whose objective is to collect the contractual cash flows. As a result of retrospective application of future 12-month expected credit loss, the adjustments would result in an increase in loss allowance of NT\$8,252 thousand and a decrease in retained earnings of NT\$8,252 thousand on January 1, 2018.
- (5) With the retrospective adoption of IFRS 9 by associates accounted for using equity method, the corresponding adjustments made by the Company would result in an increase in investments accounted for using equity method of NT\$8,258 thousand, a decrease in other equity- unrealized gain/loss on financial assets at FVTOCI of NT\$23,616 thousand, a decrease in other equity-unrealized gain/loss on available-for-sale financial assets of NT\$2,110 thousand and an increase in retained earnings of NT\$33,984 thousand on January 1, 2018.

Hedge accounting

The main changes in hedge accounting amended the application requirements for hedge accounting to better reflect the entity's risk management activities. Compared with IAS 39, the main changes include: (1) enhancing types of transactions eligible for hedge accounting, specifically broadening the risks eligible for hedge accounting of non-financial items; (2) changing the way the hedging cost of derivative instruments are accounted for to reduce profit or loss volatility; and (3) replacing retrospective effectiveness assessment with the principle of economic relationship between the hedging instrument and the hedged item.

A preliminary assessment of the Company's current hedging relationships indicates that they will qualify as continuing hedging relationships under IFRS 9. The Company will prospectively apply the requirements for hedge accounting upon initial application of IFRS 9.

2) IFRS 15 "Revenue from Contracts with Customers" and related amendments

IFRS 15 establishes principles for recognizing revenue that apply to all contracts with customers, and will supersede IAS 18 "Revenue," IAS 11 "Construction Contracts," and a number of revenue-related interpretations.

When applying IFRS 15, the Company shall recognize revenue by applying the following steps:

- Identify the contract with the customer;
- Identify the performance obligations in the contract;
- Determine the transaction price;

- Allocate the transaction price to the performance obligations in the contract; and
- Recognize revenue when the entity satisfies a performance obligation.

The Company elects only to retrospectively apply IFRS 15 to contracts that were not completed on January 1, 2018 and elects not to restate prior reporting period with the cumulative effect of the initial application recognized at the date of initial application.

The anticipated impact on assets, liabilities and equity when retrospectively applying IFRS 15 on January 1, 2018 is detailed below:

	Carrying Amount as of December 31, 2017 (IAS 18 and Revenue-related Interpretations)	Adjustments Arising from Initial Application	Carrying Amount as of January 1, 2018 (IFRS 15)	Note
Inventories	\$ 73,880,747	\$ (19,746)	\$ 73,861,001	(1)
Other financial assets-current	7,253,114	34,177	7,287,291	(1)
Investments accounted for using equity method	17,861,488	<u>19,483</u>	17,880,971	(1)
Total effect on assets		<u>\$ 33,914</u>		
Provisions - current	13,961,787	\$ (13,961,787)	-	(2)
Accrued expenses and other current liabilities	65,588,396	<u>13,961,787</u>	79,550,183	(2)
Total effect on liabilities		<u>\$ -</u>		
Retained earnings	1,233,362,010	\$ 32,029	1,233,394,039	(1)
Non-controlling interests	702,110	<u>1,885</u>	703,995	(1)
Total effect on equity		<u>\$ 33,914</u>		

(1) Prior to the application of IFRS 15, the Company recognizes revenue based on the accounting treatment of the sales of goods. Under IFRS 15, certain subsidiaries and associates accounted for using equity method will change to recognize revenue over time because customers are deemed to have control over the products when the products are manufactured. As a result, the Company will recognize contract assets (classified under other financial assets) and adjust related assets and equity accordingly.

(2) Prior to the application of IFRS 15, the Company recognized the estimation of sales returns and allowance as provisions. Under IFRS 15, the Company recognizes such estimation as refund liability (classified under accrued expenses and other current liabilities).

Except for the aforementioned impact, as of the date the accompanying consolidated financial statements were authorized for issue, the Company continues in evaluating the impact on its financial position and financial performance as a result of the initial adoption of the other standards or interpretations. The related impact will be disclosed when the Company completes the evaluation.

- c. The IFRSs issued by IASB but not yet endorsed and issued into effect by FSC

New, Revised or Amended Standards and Interpretations	Effective Date Issued by IASB
Annual Improvements to IFRSs 2015–2017 Cycle	January 1, 2019
Amendments to IFRS 9 “Prepayment Features with Negative Compensation”	January 1, 2019
Amendments to IFRS 10 and IAS 28 “Sale or Contribution of Assets between an Investor and its Associate or Joint Venture”	To be determined by IASB
IFRS 16 “Leases”	January 1, 2019 (Note 2)
Amendments to IAS 19 “Plan Amendment, Curtailment or Settlement”	January 1, 2019
Amendments to IAS 28 “Long-term Interests in Associates and Joint Ventures”	January 1, 2019
IFRIC 23 “Uncertainty over Income Tax Treatments”	January 1, 2019

Note 2: On December 19, 2017, the FSC announced that IFRS 16 will take effect starting January 1, 2019.

Except for the following items, the Company believes that the adoption of aforementioned standards or interpretations will not have a significant effect on the Company’s accounting policies.

1) IFRS 16 “Leases”

IFRS 16 sets out the accounting standards for leases that will supersede IAS 17 and a number of related interpretations.

Under IFRS 16, if the Company is a lessee, it shall recognize right-of-use assets and lease liabilities for all leases on the consolidated balance sheets except for low-value and short-term leases. The Company may elect to apply the accounting method similar to the accounting for operating lease under IAS 17 to the low-value and short-term leases. On the consolidated statements of comprehensive income, the Company should present the depreciation expense charged on the right-of-use asset separately from interest expense accrued on the lease liability; interest is computed by using effective interest method. On the consolidated statements of cash flows, cash payments for both the principal and interest portion of the lease liability are classified within financing activities.

When IFRS 16 becomes effective, the Company may elect to apply this Standard either retrospectively to each prior reporting period presented or retrospectively with the cumulative effect of the initial application of this Standard recognized at the date of initial application.

Except for the aforementioned impact, as of the date the accompanying consolidated financial statements were authorized for issue, the Company continues in evaluating the impact on its financial position and financial performance as a result of the initial adoption of the other standards or interpretations. The related impact will be disclosed when the Company completes the evaluation.

4. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

For the convenience of readers, the accompanying consolidated financial statements have been translated into English from the original Chinese version prepared and used in the R.O.C. If there is any conflict between the English version and the original Chinese version or any difference in the interpretation of the two versions, the Chinese-language consolidated financial statements shall prevail.

Statement of Compliance

The accompanying consolidated financial statements have been prepared in conformity with the Regulations Governing the Preparation of Financial Reports by Securities Issuers and the IFRSs endorsed by the FSC with the effective dates (collectively, “Taiwan-IFRSs”).

Basis of Preparation

The accompanying consolidated financial statements have been prepared on the historical cost basis except for financial instruments that are measured at fair values, as explained in the accounting policies below. Historical cost is generally based on the fair value of the consideration given in exchange for the assets.

Basis of Consolidation

The basis for the consolidated financial statements

The consolidated financial statements incorporate the financial statements of TSMC and entities controlled by TSMC (its subsidiaries).

Income and expenses of subsidiaries acquired or disposed of are included in the consolidated statement of comprehensive income from the effective date of acquisition and up to the effective date of disposal, as appropriate. Total comprehensive income of subsidiaries is attributed to the shareholders of the parent and to the noncontrolling interests even if this results in the noncontrolling interests having a deficit balance.

When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with those used by the Company.

All intra-group transactions, balances, income and expenses are eliminated in full on consolidation.

Changes in the Company’s ownership interests in subsidiaries that do not result in the Company losing control over the subsidiaries are accounted for as equity transactions. The carrying amounts of the Company’s interests and the noncontrolling interests are adjusted to reflect the changes in their relative interests in the subsidiaries. Any difference between the amount by which the noncontrolling interests are adjusted and the fair value of the consideration paid or received is recognized directly in equity and attributed to shareholders of the parent.

When the Company loses control of a subsidiary, a gain or loss is recognized in profit or loss and is calculated as the difference between:

- a. the aggregate of the fair value of consideration received and the fair value of any retained interest at the date when control is lost; and
- b. the previous carrying amount of the assets (including goodwill), and liabilities of the subsidiary and any noncontrolling interest.

The Company shall account for all amounts recognized in other comprehensive income in relation to the subsidiary on the same basis as would be required if the Company had directly disposed of the related assets and liabilities.

The fair value of any investment retained in the former subsidiary at the date when control is lost is regarded as the cost on initial recognition of an investment in an associate.

The subsidiaries in the consolidated financial statements

The detail information of the subsidiaries at the end of reporting period was as follows:

Name of Investor	Name of Investee	Main Businesses and Products	Establishment and Operating Location	Percentage of Ownership		Note	
				December 31, 2017	December 31, 2016		
TSMC	TSMC North America	Selling and marketing of integrated circuits and other semiconductor devices	San Jose, California, U.S.A.	100%	100%	-	
	TSMC Japan Limited (TSMC Japan)	Customer service and supporting activities	Yokohama, Japan	100%	100%	a)	
	TSMC Partners, Ltd. (TSMC Partners)	Investing in companies involved in the design, manufacture, and other related business in the semiconductor industry and other investment activities	Tortola, British Virgin Islands	100%	100%	a)	
	TSMC Korea Limited (TSMC Korea)	Customer service and supporting activities	Seoul, Korea	100%	100%	a)	
	TSMC Europe B.V. (TSMC Europe)	Customer service and supporting activities	Amsterdam, the Netherlands	100%	100%	a)	
	TSMC Global, Ltd. (TSMC Global)	Investment activities	Tortola, British Virgin Islands	100%	100%	-	
	TSMC China Company Limited (TSMC China)	Manufacturing, selling, testing and computer-aided design of integrated circuits and other semiconductor devices	Shanghai, China	100%	100%	-	
	TSMC Nanjing Company Limited (TSMC Nanjing)	Manufacturing, selling, testing and computer-aided design of integrated circuits and other semiconductor devices	Nanjing, China	100%	100%	b)	
	VentureTech Alliance Fund III, L.P. (VTAF III)	Investing in new start-up technology companies	Cayman Islands	98%	98%	a)	
	VentureTech Alliance Fund II, L.P. (VTAF II)	Investing in new start-up technology companies	Cayman Islands	98%	98%	a)	
	TSMC Solar Europe GmbH	Selling of solar related products and providing customer service	Hamburg, Germany	100%	100%	a), c)	
	VisEra Technologies Company Ltd. (VisEra Tech)	Engaged in manufacturing electronic spare parts and in researching, developing, designing, manufacturing, selling, packaging and testing of color filter	Hsinchu, Taiwan	87%	87%	d)	
	TSMC Partners	TSMC Design Technology Canada Inc. (TSMC Canada)	Engineering support activities	Ontario, Canada	100%	100%	a)
		TSMC Technology, Inc. (TSMC Technology)	Engineering support activities	Delaware, U.S.A.	100%	100%	a)
TSMC Development, Inc. (TSMC Development)		Investing in companies involved in the manufacturing related business in the semiconductor industry	Delaware, U.S.A.	100%	100%	-	
InveStar Semiconductor Development Fund, Inc. (ISDF)		Investing in new start-up technology companies	Cayman Islands	97%	97%	a), e)	
InveStar Semiconductor Development Fund, Inc. (II) LDC. (ISDF II)		Investing in new start-up technology companies	Cayman Islands	97%	97%	a), e)	
TSMC Development	WaferTech, LLC (WaferTech)	Manufacturing, selling and testing of integrated circuits and other semiconductor devices	Washington, U.S.A.	100%	100%	-	
VTAF III	Mutual-Pak Technology Co., Ltd. (Mutual-Pak)	Manufacturing of electronic parts, wholesaling and retailing of electronic materials, and researching, developing and testing of RFID	New Taipei, Taiwan	39%	58%	a), f)	
	Growth Fund Limited (Growth Fund)	Investing in new start-up technology companies	Cayman Islands	100%	100%	a)	
VTAF III, VTAF II and TSMC	VentureTech Alliance Holdings, LLC (VTA Holdings)	Investing in new start-up technology companies	Delaware, U.S.A.	-	100%	a), g)	

Note a: This is an immaterial subsidiary for which the consolidated financial statements are not audited by the Company's independent accountants.

Note b: Under the investment agreement entered into with the municipal government of Nanjing, China on March 28, 2016, the Company will make an investment in Nanjing in the amount of approximately US\$3 billion to establish a subsidiary operating a 300mm wafer fab with the capacity of 20,000 12-inch wafers per month, and a design service center. TSMC Nanjing was established in May 2016.

Note c: TSMC Solar Europe GmbH is under liquidation procedures.

Note d: To simplify investment structure, VisEra Tech owned by VisEra Holding Company (VisEra Holding) was transferred to TSMC in the third quarter of 2016. In October 2016, VisEra Holding was incorporated into TSMC Partners, the subsidiary of TSMC.

Note e: ISDF and ISDF II are under liquidation procedures.

Note f: Starting December 2017, the Company no longer had the majority of voting power and control over Mutual-Pak. As a result, Mutual-Pak is no longer consolidated and is accounted for using the equity method.

Note g: VTA Holdings completed the liquidation procedures in April 2017.

Foreign Currencies

The financial statements of each individual consolidated entity were expressed in the currency which reflected its primary economic environment (functional currency). The functional currency of TSMC and presentation currency of the consolidated financial statements are both New Taiwan Dollars (NT\$). In preparing the consolidated financial statements, the operating results and financial positions of each consolidated entity are translated into NT\$.

In preparing the financial statements of each individual consolidated entity, transactions in currencies other than the entity's functional currency (foreign currencies) are recognized at the rates of exchange prevailing at the dates of the transactions. At the end of each reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at that date. Such exchange differences are recognized in profit or loss in the year in which they arise. Non-monetary items measured at fair value that are denominated in foreign currencies are retranslated at the rates prevailing at the date when the fair value was determined. Exchange differences arising on the retranslation of non-monetary items are included in profit or loss for the year except for exchange differences arising on the retranslation of non-monetary items in respect of which gains and losses are recognized directly in other comprehensive income, in which case, the exchange differences are also recognized directly in other comprehensive income. Non-monetary items that are measured in terms of historical cost in foreign currencies are not retranslated.

For the purposes of presenting consolidated financial statements, the assets and liabilities of the Company's foreign operations are translated into NT\$ using exchange rates prevailing at the end of each reporting period. Income and expense items are translated at the average exchange rates for the period. Exchange differences arising, if any, are recognized in other comprehensive income and accumulated in equity (attributed to noncontrolling interests as appropriate).

Classification of Current and Noncurrent Assets and Liabilities

Current assets are assets held for trading purposes and assets expected to be converted to cash, sold or consumed within one year from the end of the reporting period. Current liabilities are obligations incurred for trading purposes and obligations expected to be settled within one year from the end of the reporting period. Assets and liabilities that are not classified as current are noncurrent assets and liabilities, respectively.

Cash Equivalents

Cash equivalents, for the purpose of meeting short-term cash commitments, consist of highly liquid time deposits and investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value.

Financial Instruments

Financial assets and liabilities shall be recognized when the Company becomes a party to the contractual provisions of the instruments.

Financial assets and liabilities are initially recognized at fair values. Transaction costs that are directly attributable to the acquisition or issue of financial assets and financial liabilities (other than financial assets and financial liabilities at fair value through profit or loss) are added to or deducted from the fair value of the financial assets or financial liabilities, as appropriate, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities at fair value through profit or loss are recognized immediately in profit or loss.

Financial Assets

Financial assets are classified into the following specified categories: Financial assets "at FVTPL", "held-to-maturity" financial assets, "available-for-sale" financial assets and "loans and receivables". The classification depends on the nature and purpose of the financial assets and is determined at the time of initial recognition. Regular way purchases or sales of financial assets are recognized and derecognized on a trade date or settlement date basis for which financial assets were classified in the same way, respectively. Regular way purchases or sales are purchases or sales of financial assets that require delivery of assets within the time frame established by regulation or convention in the marketplace.

Financial assets at fair value through profit or loss

Financial assets are classified as at fair value through profit or loss when the financial asset is either held for trading or it is designated as at fair value through profit or loss.

Financial assets at fair value through profit or loss are stated at fair value, with any gains or losses arising on remeasurement recognized in profit or loss.

Held-to-maturity financial assets

Held-to-maturity investments are non-derivative financial assets with fixed or determinable payments and fixed maturity dates that the Company has the positive intent and ability to hold to maturity. Subsequent to initial recognition, held-to-maturity financial assets are measured at amortized cost using the effective interest method less any impairment.

Available-for-sale financial assets

Available-for-sale financial assets are non-derivative financial assets that are either designated as available-for-sale or are not classified as (a) loans and receivables, (b) held-to-maturity financial assets or (c) financial assets at fair value through profit or loss.

Available-for-sale financial assets are measured at fair value. Interest income from available-for-sale monetary financial assets and dividends on available-for-sale equity investments are recognized in profit or loss. Other changes in the carrying amount of available-for-sale financial assets are recognized in other comprehensive income. When the investment is disposed of or is determined to be impaired, the cumulative gain or loss previously recognized in other comprehensive income is reclassified to profit or loss.

Dividends on available-for-sale equity instruments are recognized in profit or loss when the Company's right to receive the dividends is established.

Available-for-sale equity instruments that do not have a quoted market price in an active market and whose fair value cannot be reliably measured are measured at cost less any identified impairment losses at the end of each reporting period. Such equity instruments are subsequently remeasured at fair value when their fair value can be reliably measured, and the difference between the carrying amount and fair value is recognized in profit or loss or other comprehensive income.

Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. Loans and receivables including cash and cash equivalents, notes and accounts receivable and other receivables are measured at amortized cost using the effective interest method, less any impairment, except for those loans and receivables with immaterial discounted effect.

Impairment of financial assets

Financial assets, other than those carried at FVTPL, are assessed for indicators of impairment at the end of each reporting period. Those financial assets are considered to be impaired when there is objective evidence that, as a result of one or more events that occurred after the initial recognition of the financial assets, their estimated future cash flows have been affected.

For financial assets carried at amortized cost, such as trade receivables, assets that are assessed not to be impaired individually are, in addition, assessed for impairment on a collective basis. The Company assesses the collectability of receivables by performing the account aging analysis and examining current trends in the credit quality of its customers.

For financial assets carried at amortized cost, the amount of the impairment loss is the difference between the asset's carrying amount and the present value of estimated future cash flows, discounted at the financial asset's original effective interest rate.

For financial assets measured at amortized cost, if, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment loss was recognized, the previously recognized impairment loss is reversed through profit or loss to the extent that the carrying amount of the financial assets at the date the impairment loss is reversed does not exceed what the amortized cost would have been had the impairment loss not been recognized.

When an available-for-sale financial asset is considered to be impaired, cumulative gains or losses previously recognized in other comprehensive income are reclassified to profit or loss in the year.

In respect of available-for-sale equity instruments, impairment losses previously recognized in profit or loss are not reversed through profit or loss. Any increase in fair value subsequent to the recognition of an impairment loss is recognized in other comprehensive income and accumulated under the heading of unrealized gains or losses from available-for-sale financial assets.

For financial assets carried at cost, the amount of the impairment loss is measured as the difference between the asset's carrying amount and the present value of the estimated future cash flows discounted at the current market rate of return for a similar financial asset. Such impairment loss will not be reversed in subsequent periods.

The carrying amount of the financial asset is reduced by the impairment loss directly for all financial assets with the exception of trade receivables, where the carrying amount is reduced through the use of an allowance account. When a trade receivable is considered uncollectible, it is written off against the allowance account. Subsequent recoveries of amounts previously written off are credited against the allowance account.

Derecognition of financial assets

The Company derecognizes a financial asset only when the contractual rights to the cash flows from the financial asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the financial asset to another entity.

On derecognition of a financial asset in its entirety, the difference between the financial asset's carrying amount and the sum of the consideration received and receivable and the cumulative gain or loss that had been recognized in other comprehensive income and accumulated in equity is recognized in profit or loss.

Financial Liabilities and Equity Instruments

Classification as debt or equity

Debt and equity instruments issued by the Company are classified as either financial liabilities or as equity in accordance with the substance of the contractual arrangements and the definitions of a financial liability and an equity instrument.

Equity instruments

An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities. Equity instruments issued by the Company are recognized at the proceeds received, net of direct issue costs.

Financial liabilities

Financial liabilities are subsequently measured either at amortized cost using effective interest method or at FVTPL.

Financial liabilities are classified as at fair value through profit or loss when the financial liability is either held for trading or is designated as at fair value through profit or loss.

Financial liabilities at fair value through profit or loss are stated at fair value, with any gains or losses arising on remeasurement recognized in profit or loss.

Financial liabilities other than those held for trading purposes and designated as at FVTPL are subsequently measured at amortized cost at the end of each reporting period.

Derecognition of financial liabilities

The Company derecognizes financial liabilities when, and only when, the Company's obligations are discharged, cancelled or they expire. The difference between the carrying amount of the financial liability derecognized and the consideration paid and payable is recognized in profit or loss.

Derivative Financial Instruments

Derivative financial instruments are initially recognized at fair value at the date the derivative contracts are entered into and are subsequently remeasured to their fair value at the end of each reporting period. The resulting gain or loss is recognized in profit or loss immediately unless the derivative financial instrument is designated and effective as a hedging instrument, in which event the timing of the recognition in profit or loss depends on the nature of the hedge relationship.

Financial Instruments Designated as at Fair Value through Profit or Loss

A financial instrument may be designated as at FVTPL upon initial recognition. The financial instrument forms part of a group of financial assets or financial liabilities or both, which is managed and its performance is evaluated on a fair value basis, in accordance with the Company's documented risk management or investment strategy, and information about the grouping is provided internally on that basis.

Hedge Accounting

Fair Value Hedge

The Company designates certain hedging instruments, such as interest rate futures contracts, to partially hedge against the price risk caused by changes in interest rates in the Company's investments in fixed income securities as fair value hedge. Changes in the fair value of hedging instrument that are designated and qualify as fair value hedges are recognized in profit or loss immediately, together with any changes in the fair value of the hedged asset that are attributable to the hedged risk.

Cash Flow Hedge

The Company designates certain hedging instruments, such as forward exchange contracts, to partially hedge its foreign exchange rate risks associated with certain highly probable forecast transactions, such as capital expenditures. The effective portion of changes in the fair value of hedging instruments is recognized in other comprehensive income. When the forecast transactions actually take place, the associated gains or losses that were recognized in other comprehensive income are removed from equity and included in the initial cost of the hedged items. The gains or losses from hedging instruments relating to the ineffective portion are recognized immediately in profit or loss.

For the aforementioned fair value hedge and cash flow hedge, hedge accounting is discontinued prospectively when the Company revokes the designated hedging relationship, or when the hedging instruments expire or are sold, terminated, or exercised, or no longer meet the criteria for hedge accounting.

Inventories

Inventories are stated at the lower of cost or net realizable value. Inventories are recorded at standard cost and adjusted to approximate weighted-average cost at the end of the reporting period. Net realizable value represents the estimated selling price of inventories less all estimated costs of completion and costs necessary to make the sale.

Investments Accounted for Using Equity Method

Investments accounted for using the equity method are investments in associates.

An associate is an entity over which the Company has significant influence and that is neither a subsidiary nor a joint venture. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those policies.

The operating results and assets and liabilities of associates are incorporated in these consolidated financial statements using the equity method of accounting. Under the equity method, an investment in an associate is initially recognized in the consolidated statement of financial position at cost and adjusted thereafter to recognize the Company's share of profit or loss and other comprehensive income of the associate as well as the distribution received. The Company also recognizes its share in the changes in the equities of associates.

Any excess of the cost of acquisition over the Company's share of the net fair value of the identifiable assets, liabilities and contingent liabilities of an associate recognized at the date of acquisition is recognized as goodwill, which is included within the carrying amount of the investment. Any excess of the Company's share of the net fair value of the identifiable assets, liabilities and contingent liabilities over the cost of acquisition, after reassessment, is recognized immediately in profit or loss.

When necessary, the entire carrying amount of the investment (including goodwill) is tested for impairment as a single asset by comparing its recoverable amount (higher of value in use and fair value less costs to sell) with its carrying amount. Any impairment loss recognized forms part of the carrying amount of the investment. Any reversal of that impairment loss is recognized to the extent that the recoverable amount of the investment subsequently increases.

The Company discontinues the use of the equity method from the date when the Company ceases to have significant influence over an associate. When the Company retains an interest in the former associate, the Company measures the retained interest at fair value at that date. The difference between the carrying amount of the associate at the date the equity method was discontinued, and the fair value of any retained interest and any proceeds from disposing of a part interest in the associate is included in the determination of the gain or loss on disposal of the associate. In addition, the Company shall account for all amounts recognized in other comprehensive income in relation to that associate on the same basis as would be required if the associate had directly disposed of the related assets or liabilities. If the Company's ownership interest in an associate is reduced as a result of disposal, but the investment continues to be an associate, the Company should reclassify to profit or loss only a proportionate amount of the gain or loss previously recognized in other comprehensive income.

When the Company subscribes to additional shares in an associate at a percentage different from its existing ownership percentage, the resulting carrying amount of the investment differs from the amount of the Company's proportionate interest in the net assets of the associate. The Company records such a difference as an adjustment to investments with the corresponding amount charged or credited to capital surplus. If the Company's ownership interest is reduced due to the additional subscription to the shares of associate by other investors, the proportionate amount of the gains or losses previously recognized in other

comprehensive income in relation to that associate shall be reclassified to profit or loss on the same basis as would be required if the associate had directly disposed of the related assets or liabilities.

When a consolidated entity transacts with an associate, profits and losses resulting from the transactions with the associate are recognized in the Company's consolidated financial statements only to the extent of interests in the associate that are not owned by the Company.

Property, Plant and Equipment

Property, plant and equipment are measured at cost less accumulated depreciation and accumulated impairment. Costs include any incremental costs that are directly attributable to the construction or acquisition of the item of property, plant and equipment.

Properties in the course of construction for production, supply or administrative purposes are carried at cost, less any recognized impairment loss. Such properties are classified to the appropriate categories of property, plant and equipment when completed and ready for intended use. Depreciation of these assets, on the same basis as other property assets, commences when the assets are ready for their intended use.

Depreciation is recognized so as to write off the cost of the assets less their residual values over their useful lives, and it is computed using the straight-line method over the following estimated useful lives: land improvements - 20 years; buildings - 10 to 20 years; machinery and equipment - 2 to 5 years; office equipment - 3 to 5 years; and leased assets - 20 years. The estimated useful lives, residual values and depreciation method are reviewed at the end of each reporting period, with the effect of any changes in estimates accounted for on a prospective basis. Land is not depreciated.

Assets held under finance leases are depreciated over their expected useful lives on the same basis as owned assets. However, when there is no reasonable certainty that ownership will be obtained by the end of the lease term, assets are depreciated over the shorter of the lease term and their useful lives.

An item of property, plant and equipment is derecognized upon disposal or when no future economic benefits are expected to arise from the continued use of the assets. Any gain or loss arising on the disposal or retirement of an item of property, plant and equipment is determined as the difference between the sales proceeds and the carrying amount of the asset and is recognized in profit or loss.

Leases

Leases are classified as finance lease whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

The Company as lessor

Rental income from operating leases is recognized on a straight-line basis over the term of the relevant lease.

The Company as lessee

Assets held under finance lease are initially recognized as assets of the Company at the fair value at the inception of the lease or, if lower, at the present value of the minimum lease payments. The corresponding liability to the lessor is recognized as an obligation under finance lease.

Lease payments are apportioned between finance expense and reduction of the lease obligation so as to achieve a constant rate of interest on the remaining balance of the liability.

Operating lease payments are recognized as an expense on a straight-line basis over the lease term.

Intangible Assets

Goodwill

Goodwill arising on an acquisition of a business is carried at cost as established at the date of acquisition of the business less accumulated impairment losses, if any.

Other intangible assets

Other separately acquired intangible assets with finite useful lives are carried at cost less accumulated amortization and accumulated impairment losses. Amortization is recognized using the straight-line method over the following estimated useful lives: Technology license fees - the estimated life of the technology or the term of the technology transfer contract; software and system design costs - 3 years or contract period; patent and others - the economic life or contract period. The estimated useful life and amortization method are reviewed at the end of each reporting period, with the effect of any changes in estimate being accounted for on a prospective basis.

Impairment of Tangible and Intangible Assets

Goodwill

Goodwill is not amortized and instead is tested for impairment annually, or more frequently when there is an indication that the cash generating unit may be impaired. For the purpose of impairment testing, goodwill is allocated to each of the Company's cash-generating units or groups of cash-generating units that are expected to benefit from the synergies of the combination. If the recoverable amount of a cash-generating unit is less than its carrying amount, the difference is allocated first to reduce the carrying amount of any goodwill allocated to such cash generating unit and then to the other assets of the cash generating unit pro rata based on the carrying amount of each asset in the cash generating unit. Any impairment loss for goodwill is recognized directly in profit or loss. An impairment loss recognized for goodwill is not reversed in subsequent periods.

Other tangible and intangible assets

At the end of each reporting period, the Company reviews the carrying amounts of its tangible and intangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss. When it is not possible to estimate the recoverable amount of an individual asset, the Company estimates the recoverable amount of the cash-generating unit to which the asset belongs. When a reasonable and consistent basis of allocation can be identified, corporate assets are also allocated to individual cash-generating units, or otherwise they are allocated to the smallest group of cash-generating units for which a reasonable and consistent allocation basis can be identified.

Recoverable amount is the higher of fair value less costs to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset or cash-generating unit is estimated to be less than its carrying amount, the carrying amount of the asset or cash-generating unit is reduced to its recoverable amount. An impairment loss is recognized immediately in profit or loss.

When an impairment loss subsequently reverses, the carrying amount of the asset or a cash-generating unit is increased to the revised estimate of its recoverable amount, but the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognized for the asset or cash-generating unit in prior years. A reversal of an impairment loss is recognized immediately in profit or loss.

Provision

Provisions are recognized when the Company has a present obligation (legal or constructive) as a result of a past event, it is probable that the Company will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation.

The amount recognized as a provision is the best estimate of the consideration required to settle the present obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation. When a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of those cash flows.

Guarantee Deposit

Guarantee deposit mainly consists of cash received under deposit agreements with customers to ensure they have access to the Company's specified capacity; and as guarantee of accounts receivable to ensure payment from customers. Cash received from customers is recorded as guarantee deposit upon receipt. Guarantee deposits are refunded to customers when terms and conditions set forth in the deposit agreements have been satisfied.

Revenue Recognition

Revenue is measured at the fair value of the consideration received or receivable. Revenue is reduced for estimated customer returns, rebates and other similar allowances.

Sale of goods

Revenue from the sale of goods is recognized when the goods are delivered and titles have passed, at which time all the following conditions are satisfied:

- The Company has transferred to the buyer the significant risks and rewards of ownership of the goods;
- The Company retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold;
- The amount of revenue can be measured reliably;
- It is probable that the economic benefits associated with the transaction will flow to the Company; and
- The costs incurred or to be incurred in respect of the transaction can be measured reliably.

In principle, payment term granted to customers is due 30 days from the invoice date or 30 days from the end of the month of when the invoice is issued. Due to the short term nature of the receivables from sale of goods with the immaterial discounted effect, the Company measures them at the original invoice amounts without discounting.

Royalties, dividend and interest income

Revenue from royalties is recognized on an accrual basis in accordance with the substance of the relevant agreement, provided that it is probable that the economic benefits will flow to the Company and the amount of revenue can be measured reliably.

Dividend income from investments is recognized when the shareholder's right to receive payment has been established, provided that it is probable that the economic benefits will flow to the Company and the amount of income can be measured reliably.

Interest income from a financial asset is recognized when it is probable that the economic benefits will flow to the Company and the amount of income can be measured reliably. Interest income is accrued on a time basis, by reference to the principal outstanding and at the effective interest rate applicable.

Employee Benefits

Short-term employee benefits

Liabilities recognized in respect of short-term employee benefits are measured at the undiscounted amount of the benefits expected to be paid in exchange for service rendered by employees.

Retirement benefits

For defined contribution retirement benefit plans, payments to the benefit plan are recognized as an expense when the employees have rendered service entitling them to the contribution. For defined benefit retirement benefit plans, the cost of providing benefit is recognized based on actuarial calculations.

Defined benefit costs (including service cost, net interest and remeasurement) under the defined benefit retirement benefit plans are determined using the Projected Unit Credit Method. Service cost (including current service cost), and net interest on the net defined benefit liability (asset) are recognized as employee benefits expense in the period they occur. Remeasurement, comprising actuarial gains and losses and the return on plan assets (excluding interest), is recognized in other comprehensive income in the period in which they occur. Remeasurement recognized in other comprehensive income is reflected immediately in retained earnings and will not be reclassified to profit or loss.

Net defined benefit liability represents the actual deficit in the Company's defined benefit plan.

Taxation

Income tax expense represents the sum of the tax currently payable and deferred tax.

Current tax

Income tax on unappropriated earnings (excluding earnings from foreign consolidated subsidiaries) is expensed in the year the shareholders approved the appropriation of earnings which is the year subsequent to the year the earnings are generated.

Adjustments of prior years' tax liabilities are added to or deducted from the current year's tax provision.

Deferred tax

Deferred tax is recognized on temporary differences between the carrying amounts of assets and liabilities in the consolidated financial statements and the corresponding tax bases used in the computation of taxable profit. Deferred tax liabilities are generally recognized for all taxable temporary differences. Deferred tax assets are generally recognized for all deductible temporary differences, net operating loss carryforwards and tax credits for research and development expenses to the extent that it is probable that taxable profits will be available against which those deductible temporary differences can be utilized.

Deferred tax liabilities are recognized for taxable temporary differences associated with investments in subsidiaries and associates, except where the Company is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets arising from deductible temporary differences associated with such investments are only recognized to the extent that it is probable that there will be sufficient taxable profits against which to utilize the benefits of the temporary differences and they are expected to reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the deferred tax asset to be recovered. The deferred tax assets which originally not recognized is also reviewed at the end of each reporting period and recognized to the extent that it is probable that sufficient taxable profits will be available to allow all or part of the deferred tax asset to be recovered.

Deferred tax liabilities and assets are measured at the tax rates that are expected to apply in the year in which the liability is settled or the asset is realized, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period. The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the Company expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

Current and deferred tax for the year

Current and deferred tax are recognized in profit or loss, except when they relate to items that are recognized in other comprehensive income or directly in equity, in which case, the current and deferred tax are also recognized in other comprehensive income or directly in equity, respectively.

Insurance Claim

The Company recognizes insurance claim reimbursement for losses incurred related to disaster damages. Insurance claim reimbursements are recorded, net of any deductible amounts, at the time while there is evidence that the claim reimbursement is virtually certain to be received.

Government Grants

Government grants are not recognized until there is reasonable assurance that the Company will comply with the conditions attaching to them and that the grants will be received.

Government grants whose primary condition is that the Company should purchase, construct or otherwise acquire non-current assets (mainly including land use right and depreciable assets) are recognized as a deduction from the carrying amount of the related assets and recognized as a reduced depreciation or amortization charge in profit or loss over the contract period or useful lives of the related assets. Government grants that are receivables as compensation for expenses already incurred are deducted from incurred expenses in the period in which they become receivables.

5. CRITICAL ACCOUNTING JUDGMENTS AND KEY SOURCES OF ESTIMATION AND UNCERTAINTY

In the application of the aforementioned Company's accounting policies, the Company is required to make judgments, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the year in which the estimate is revised if the revision affects only that year, or in the year of the revision and future years if the revision affects both current and future years.

Revenue Recognition

The Company recognizes revenue when the conditions described in Note 4 are satisfied. The Company also records a provision for estimated future returns and other allowances in the same period the related revenue is recorded. Provision for estimated sales returns and other allowances is generally made and adjusted based on historical experience and the consideration of varying contractual terms, and the Company periodically reviews the adequacy of the estimation used.

Impairment of Tangible and Intangible Assets Other than Goodwill

In the process of evaluating the potential impairment of tangible and intangible assets other than goodwill, the Company is required to make subjective judgments in determining 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 changes in these estimates based on changed economic conditions or business strategies could result in significant impairment charges or reversal in future years.

Impairment of Goodwill

The assessment of impairment of goodwill requires the Company to make subjective judgment to determine the identified cash-generating units, allocate the goodwill to relevant cash-generating units and estimate the recoverable amount of relevant cash-generating units.

Impairment Assessment on Investment Using Equity Method

The Company assesses the impairment of investments accounted for using the equity method whenever triggering events or changes in circumstances indicate that an investment may be impaired and carrying value may not be recoverable. The Company measures the impairment based on a projected future cash flow of the investees, including the underlying assumptions of sales growth rate and capacity utilization rate formulated by such investees' internal management team. The Company also takes into account market conditions and the relevant industry trends to ensure the reasonableness of such assumptions.

Realization of Deferred Income Tax Assets

Deferred tax assets are recognized to the extent that it is probable that future taxable profits will be available against which those deferred tax assets can be utilized. Assessment of the realization of the deferred tax assets requires the Company's subjective judgment and estimate, including the future revenue growth and profitability, tax holidays, the amount of tax credits can be utilized and feasible tax planning strategies. Any changes in the global economic environment, the industry trends and relevant laws and regulations could result in significant adjustments to the deferred tax assets.

Valuation of Inventory

Inventories are stated at the lower of cost or net realizable value, and the Company uses judgment and estimate to determine the net realizable value of inventory at the end of each reporting period.

Due to the rapid technological changes, the Company estimates the net realizable value of inventory for obsolescence and unmarketable items at the end of reporting period and then writes down the cost of inventories to net realizable value. The net realizable value of the inventory is mainly determined based on assumptions of future demand within a specific time horizon.

Recognition and Measurement of Defined Benefit Plans

Net defined benefit liability and the resulting defined benefit costs under defined benefit pension plans are calculated using the Projected Unit Credit Method. Actuarial assumptions comprise the discount rate, rate of employee turnover, and future salary increase rate. Changes in economic circumstances and market conditions will affect these assumptions and may have a material impact on the amount of the expense and the liability.

6. CASH AND CASH EQUIVALENTS

	December 31, 2017	December 31, 2016
Cash and deposits in banks	\$ 551,919,770	\$ 536,895,344
Agency bonds	776,025	-
Commercial paper	695,901	1,997,239
Repurchase agreements collateralized by corporate bonds	<u>-</u>	<u>2,361,250</u>
	<u>\$ 553,391,696</u>	<u>\$ 541,253,833</u>

Deposits in banks consisted of highly liquid time deposits that were readily convertible to known amounts of cash and were subject to an insignificant risk of changes in value.

7. FINANCIAL ASSETS AND LIABILITIES AT FAIR VALUE THROUGH PROFIT OR LOSS

	December 31, 2017	December 31, 2016
<u>Financial assets</u>		
Held for trading		
Forward exchange contracts	\$ 569,751	\$ 142,406
Cross currency swap contracts	<u>-</u>	<u>10,976</u>
	<u>569,751</u>	<u>153,382</u>
Designated as at FVTPL		
Time deposit	-	6,297,708
Forward exchange contracts	<u>-</u>	<u>22</u>
	<u>-</u>	<u>6,297,730</u>
	<u>\$ 569,751</u>	<u>\$ 6,451,112</u>
<u>Financial liabilities</u>		
Held for trading		
Forward exchange contracts	\$ 26,709	\$ 91,585
Designated as at FVTPL		
Forward exchange contracts	<u>-</u>	<u>99,550</u>
	<u>\$ 26,709</u>	<u>\$ 191,135</u>

The Company entered into derivative contracts to manage exposures due to fluctuations of foreign exchange rates. These derivative contracts did not meet the criteria for hedge accounting. Therefore, the Company did not apply hedge accounting treatment for these derivative contracts.

Outstanding forward exchange contracts consisted of the following:

	Maturity Date	Contract Amount (In Thousands)
<u>December 31, 2017</u>		
Sell NT\$/Buy EUR	January 2018 to February 2018	NT\$6,002,786/EUR169,000
Sell NT\$/Buy JPY	February 2018	NT\$996,294/JPY3,800,000
Sell US\$/Buy JPY	January 2018	US\$2,191/JPY246,724
Sell US\$/Buy RMB	January 2018	US\$558,000/RMB3,679,575
Sell US\$/Buy NT\$	January 2018 to February 2018	US\$1,661,500/NT\$49,673,320
Sell RMB /Buy EUR	January 2018	RMB38,967/EUR4,994
Sell RMB/Buy JPY	January 2018	RMB409,744/JPY7,062,536
Sell RMB/Buy GBP	January 2018	RMB3,637/GBP413
<u>December 31, 2016</u>		
Sell NT\$/Buy EUR	January 2017	NT\$5,393,329/EUR159,400
Sell NT\$/Buy JPY	January 2017	NT\$7,314,841/JPY26,501,800
Sell US\$/Buy EUR	January 2017	US\$4,180/EUR4,000
Sell US\$/Buy JPY	January 2017	US\$428/JPY50,000
Sell US\$/Buy NT\$	January 2017 to February 2017	US\$439,000/NT\$14,138,202
Sell US\$/Buy RMB	January 2017 to June 2017	US\$421,750/RMB2,908,380

Outstanding cross currency swap contracts consisted of the following:

Maturity Date	Contract Amount (In Thousands)	Range of Interest Rates Paid	Range of Interest Rates Received
<u>December 31, 2016</u>			
January 2017	US\$170,000/NT\$5,487,600	3.98%	-

8. AVAILABLE-FOR-SALE FINANCIAL ASSETS

	December 31, 2017	December 31, 2016
Corporate bonds	\$ 40,165,148	\$ 29,999,508
Agency bonds/Agency mortgage-backed securities	29,235,388	14,880,482
Asset-backed securities	13,459,545	11,254,757
Government bonds	7,817,723	8,457,362
Publicly traded stocks	2,548,054	3,196,658
Commercial paper	<u>148,295</u>	<u>-</u>
	<u>\$ 93,374,153</u>	<u>\$ 67,788,767</u>

9. HELD-TO-MATURITY FINANCIAL ASSETS

	December 31, 2017	December 31, 2016
Corporate bonds	\$ 19,338,764	\$ 23,849,701
Structured product	1,482,950	1,609,950
Commercial paper	-	8,628,176
Negotiable certificate of deposit	<u>-</u>	<u>4,829,850</u>
	<u>\$ 20,821,714</u>	<u>\$ 38,917,677</u>
Current portion	\$ 1,988,385	\$ 16,610,116
Noncurrent portion	<u>18,833,329</u>	<u>22,307,561</u>
	<u>\$ 20,821,714</u>	<u>\$ 38,917,677</u>

10. HEDGING DERIVATIVE FINANCIAL INSTRUMENTS

	December 31, 2017	December 31, 2016
<u>Financial assets- current</u>		
Fair value hedges		
Interest rate futures contracts	\$ 27,016	\$ 5,550
Cash flow hedges		
Forward exchange contracts	<u>7,378</u>	<u>-</u>
	<u>\$ 34,394</u>	<u>\$ 5,550</u>
<u>Financial liabilities- current</u>		
Cash flow hedges		
Forward exchange contracts	<u>\$ 15,562</u>	<u>\$ -</u>

The Company entered into interest rate futures contracts, which are used to hedge against the price risk caused by changes in interest rates in the Company's investments in fixed income securities.

The outstanding interest rate futures contracts consisted of the following:

Maturity Period	Contract Amount (US\$ in Thousands)
<u>December 31, 2017</u>	
March 2018	US\$ 169,400
<u>December 31, 2016</u>	
March 2017	US\$ 53,600

The Company entered into forward exchange contracts to partially hedge foreign exchange rate risks associated with certain highly probable forecast transactions, such as capital expenditures. These contracts have maturities of 12 months or less.

Outstanding forward exchange contracts consisted of the following:

	Maturity Date	Contract Amount (In Thousands)
<u>December 31, 2017</u>		
Sell NT\$/Buy EUR	February 2018 to May 2018	NT\$2,649,104/EUR75,000

11. NOTES AND ACCOUNTS RECEIVABLE, NET

	December 31, 2017	December 31, 2016
Notes and accounts receivable	\$ 121,604,989	\$ 128,815,389
Allowance for doubtful receivables	<u>(471,741)</u>	<u>(480,118)</u>
Notes and accounts receivable, net	<u>\$ 121,133,248</u>	<u>\$ 128,335,271</u>

In principle, the payment term granted to customers is due 30 days from the invoice date or 30 days from the end of the month of when the invoice is issued. The allowance for doubtful receivables is assessed by reference to the collectability of receivables by performing the account aging analysis, historical experience and current financial condition of customers.

Except for those impaired, for the rest of the notes and accounts receivable, the account aging analysis at the end of the reporting period is summarized in the following table. There was no impairment concern for the accounts receivable that were past due without recognizing a specific allowance for doubtful receivables since there was no significant change in the credit quality of its customers after the assessment. In addition, the Company has obtained guarantee against certain receivables.

Aging analysis of notes and accounts receivable, net

	December 31, 2017	December 31, 2016
Neither past due nor impaired	\$ 105,295,219	\$ 108,411,408
Past due but not impaired		
Past due within 30 days	13,984,125	15,017,824
Past due 31-60 days	929,672	1,844,726
Past due 61-120 days	582,821	3,061,313
Past due over 121 days	<u>341,411</u>	<u>-</u>
	<u>\$ 121,133,248</u>	<u>\$ 128,335,271</u>

Movements of the allowance for doubtful receivables

	Individually Assessed for Impairment	Collectively Assessed for Impairment	Total
Balance at January 1, 2017	\$ 1,848	\$ 478,270	\$ 480,118
Reversal/Write-off	(1,848)	(6,305)	(8,153)
Effect of exchange rate changes	<u>-</u>	<u>(224)</u>	<u>(224)</u>
Balance at December 31, 2017	<u>\$ -</u>	<u>\$ 471,741</u>	<u>\$ 471,741</u>
Balance at January 1, 2016	\$ 10,241	\$ 478,010	\$ 488,251
Provision	-	321	321
Reversal/Write-off	(8,393)	-	(8,393)
Effect of exchange rate changes	<u>-</u>	<u>(61)</u>	<u>(61)</u>
Balance at December 31, 2016	<u>\$ 1,848</u>	<u>\$ 478,270</u>	<u>\$ 480,118</u>

Aging analysis of accounts receivable that is individually determined as impaired

	December 31, 2017	December 31, 2016
Past due over 121 days	<u>\$ -</u>	<u>\$ 1,848</u>

12. INVENTORIES

	December 31, 2017	December 31, 2016
Finished goods	\$ 9,923,338	\$ 8,521,873
Work in process	53,362,160	33,330,870
Raw materials	7,143,806	4,012,190
Supplies and spare parts	<u>3,451,443</u>	<u>2,817,300</u>
	<u>\$ 73,880,747</u>	<u>\$ 48,682,233</u>

Reversal of write-down of inventories resulting from the increase in net realizable value (excluding earthquake losses) and write-down of inventories to net realizable value (excluding earthquake losses) in the amount of NT\$840,861 thousand and NT\$1,542,779 thousand, respectively, were included in the cost of revenue for the years ended December 31, 2017 and 2016. Please refer to related earthquake losses in Note 38.

13. FINANCIAL ASSETS CARRIED AT COST

	December 31, 2017	December 31, 2016
Non-publicly traded stocks	\$ 2,532,287	\$ 2,944,859
Mutual funds	<u>2,341,970</u>	<u>1,157,608</u>
	<u>\$ 4,874,257</u>	<u>\$ 4,102,467</u>

Since there is a wide range of estimated fair values of the Company's investments in non-publicly traded stocks, the Company concludes that the fair value cannot be reliably measured and therefore should be measured at the cost less any impairment.

The stocks of Aquantia and Impinj, Inc. were listed in November 2017 and July 2016, respectively. Accordingly, the Company reclassified the aforementioned investments from financial assets carried at cost to available-for-sale financial assets.

14. INVESTMENTS ACCOUNTED FOR USING EQUITY METHOD

Associates consisted of the following:

Name of Associate	Principal Activities	Place of Incorporation and Operation	Carrying Amount		% of Ownership and Voting Rights Held by the Company	
			December 31, 2017	December 31, 2016	December 31, 2017	December 31, 2016
Vanguard International Semiconductor Corporation (VIS)	Manufacturing, selling, packaging, testing and computer-aided design of integrated circuits and other semiconductor devices and the manufacturing and design service of masks	Hsinchu, Taiwan	\$ 8,568,344	\$ 8,806,384	28%	28%
Systems on Silicon Manufacturing Company Pte Ltd. (SSMC)	Manufacturing and selling of integrated circuits and other semiconductor devices	Singapore	5,677,640	7,163,516	39%	39%
Xintec Inc. (Xintec)	Wafer level chip size packaging and wafer level post passivation interconnection service	Taoyuan, Taiwan	2,292,100	2,599,807	41%	41%
Global Unichip Corporation (GUC)	Researching, developing, manufacturing, testing and marketing of integrated circuits	Hsinchu, Taiwan	1,300,194	1,174,181	35%	35%
Mutual-Pak	Manufacturing of electronic parts, wholesaling and retailing of electronic materials, and researching, developing and testing of RFID	New Taipei, Taiwan	23,210	-	39%	-
			<u>\$ 17,861,488</u>	<u>\$ 19,743,888</u>		

Starting December 2017, the Company no longer had the majority of voting power and control over Mutual-Pak. As a result, Mutual-Pak is no longer consolidated and is accounted for using the equity method.

Starting June 2016, the Company has no longer served as Motech's board of director. As a result, the Company exercises no significant influence over Motech. Therefore, Motech is no longer accounted for using the equity method. Further, such investment was reclassified to available-for-sale financial assets and the Company recognized a disposal loss of NT\$259,960 thousand.

As of December 31, 2017, no investments in associates are individually material to the Company. As of December 31, 2016, the summarized financial information in respect of each of the Company's material associates is set out below. The summarized financial information below represents amounts shown in the associate's financial statements prepared in accordance with Taiwan-IFRSs adjusted by the Company using the equity method of accounting.

a. VIS

	December 31, 2016
Current assets	<u>\$ 25,662,921</u>
Noncurrent assets	<u>\$ 9,501,442</u>
Current liabilities	<u>\$ 5,476,672</u>
Noncurrent liabilities	<u>\$ 804,107</u>
	Year Ended December 31, 2016
Net revenue	<u>\$ 25,828,634</u>
Income from operations	<u>\$ 6,083,625</u>
Net income	<u>\$ 5,520,645</u>
Other comprehensive income	<u>\$ 5,592</u>
Total comprehensive income	<u>\$ 5,526,237</u>
Cash dividends received	<u>\$ 1,206,981</u>

Reconciliation of the above summarized financial information to the carrying amount of the interest in the associate was as follows:

	December 31, 2016
Net assets	\$ 28,883,584
Percentage of ownership	<u>28%</u>
The Company's share of net assets of the associate	<u>8,179,830</u>
Goodwill	<u>626,554</u>
Carrying amount of the investment	<u>\$ 8,806,384</u>

b. SSMC

	December 31, 2016
Current assets	<u>\$ 14,585,150</u>
Noncurrent assets	<u>\$ 5,360,076</u>
Current liabilities	<u>\$ 1,746,602</u>
Noncurrent liabilities	<u>\$ 286,340</u>
	Year Ended December 31, 2016
Net revenue	<u>\$ 14,045,927</u>
Income from operations	<u>\$ 4,921,735</u>
Net income	<u>\$ 4,918,140</u>
Total comprehensive income	<u>\$ 4,918,140</u>
Cash dividends received	<u>\$ 4,076,170</u>

Reconciliation of the above summarized financial information to the carrying amount of the interest in the associate was as follows:

	December 31, 2016
Net assets	\$ 17,912,284
Percentage of ownership	<u>39%</u>
The Company's share of net assets of the associate	6,948,175
Goodwill	213,984
Other adjustments	<u>1,357</u>
Carrying amount of the investment	<u>\$ 7,163,516</u>

Aggregate information of associates that are not individually material was summarized as follows:

	Year Ended December 31, 2016
The Company's share of profits of associates	<u>\$ 23,140</u>
The Company's share of other comprehensive loss of associates	<u>\$ (5,244)</u>
The Company's share of total comprehensive income of associates	<u>\$ 17,896</u>

The market prices of the investments accounted for using the equity method in publicly traded stocks calculated by the closing price at the end of the reporting period are summarized as follows. The closing price represents the quoted price in active markets, the level 1 fair value measurement.

Name of Associate	December 31, 2017	December 31, 2016
VIS	<u>\$ 30,638,751</u>	<u>\$ 26,089,360</u>
GUC	<u>\$ 11,905,404</u>	<u>\$ 3,664,997</u>
Xintec	<u>\$ 9,180,759</u>	<u>\$ 3,622,227</u>

15. PROPERTY, PLANT AND EQUIPMENT

	Land and Land Improvements	Buildings	Machinery and Equipment	Office Equipment	Assets under Finance Leases	Equipment under Installation and Construction in Progress	Total
Cost							
Balance at January 1, 2017	\$ 4,049,292	\$ 304,404,474	\$ 2,042,867,744	\$ 34,729,640	\$ -	\$ 387,199,675	\$ 2,773,250,825
Additions (Deductions)	-	75,594,667	458,605,807	8,195,896	-	(219,902,510)	322,493,860
Disposals or retirements	-	(36,957)	(9,552,995)	(377,798)	-	-	(9,967,750)
Reclassification	-	-	8,791	1,507	-	-	10,298
Effect of disposal of subsidiary	-	-	(51,216)	(14,750)	-	(518)	(66,484)
Effect of exchange rate changes	(66,049)	(827,571)	(4,125,866)	(142,979)	-	56,843	(5,105,622)
Balance at December 31, 2017	<u>\$ 3,983,243</u>	<u>\$ 379,134,613</u>	<u>\$ 2,487,752,265</u>	<u>\$ 42,391,516</u>	<u>\$ -</u>	<u>\$ 167,353,490</u>	<u>\$ 3,080,615,127</u>
Accumulated depreciation and impairment							
Balance at January 1, 2017	\$ 524,845	\$ 174,349,077	\$ 1,577,377,509	\$ 23,221,707	\$ -	\$ -	\$ 1,775,473,138
Additions	27,790	20,844,584	229,985,588	4,938,000	-	-	255,795,962
Disposals or retirements	-	(28,816)	(8,114,327)	(377,470)	-	-	(8,520,613)
Reclassification	-	-	8,195	1,466	-	-	9,661
Effect of disposal of subsidiary	-	-	(42,830)	(13,838)	-	-	(56,668)
Effect of exchange rate changes	(42,137)	(718,324)	(3,765,293)	(102,921)	-	-	(4,628,675)
Balance at December 31, 2017	<u>\$ 510,498</u>	<u>\$ 194,446,521</u>	<u>\$ 1,795,448,842</u>	<u>\$ 27,666,944</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 2,018,072,805</u>
Carrying amounts at December 31, 2017	<u>\$ 3,472,745</u>	<u>\$ 184,688,092</u>	<u>\$ 692,303,423</u>	<u>\$ 14,724,572</u>	<u>\$ -</u>	<u>\$ 167,353,490</u>	<u>\$ 1,062,542,322</u>

(Continued)

	Land and Land Improvements	Buildings	Machinery and Equipment	Office Equipment	Assets under Finance Leases	Equipment under Installation and Construction in Progress	Total
<u>Cost</u>							
Balance at January 1, 2016	\$ 4,067,391	\$ 296,801,864	\$ 1,893,489,604	\$ 30,700,049	\$ 7,113	\$ 192,111,548	\$ 2,417,177,569
Additions	-	9,113,314	156,874,203	4,584,087	-	195,255,966	365,827,570
Disposals or retirements	-	(13,372)	(3,094,143)	(469,235)	-	-	(3,576,750)
Reclassification	-	-	-	7,113	(7,113)	-	-
Effect of exchange rate changes	(18,099)	(1,497,332)	(4,401,920)	(92,374)	-	(167,839)	(6,177,564)
Balance at December 31, 2016	<u>\$ 4,049,292</u>	<u>\$ 304,404,474</u>	<u>\$ 2,042,867,744</u>	<u>\$ 34,729,640</u>	<u>\$ -</u>	<u>\$ 387,199,675</u>	<u>\$ 2,773,250,825</u>
<u>Accumulated depreciation and impairment</u>							
Balance at January 1, 2016	\$ 506,185	\$ 157,910,155	\$ 1,385,857,655	\$ 19,426,069	\$ 7,113	\$ -	\$ 1,563,707,177
Additions	29,440	17,540,470	198,189,423	4,325,665	-	-	220,084,998
Disposals or retirements	-	(7,326)	(3,049,502)	(468,401)	-	-	(3,525,229)
Reclassification	-	-	-	7,113	(7,113)	-	-
Effect of exchange rate changes	(10,780)	(1,094,222)	(3,620,067)	(68,739)	-	-	(4,793,808)
Balance at December 31, 2016	<u>\$ 524,845</u>	<u>\$ 174,349,077</u>	<u>\$ 1,577,377,509</u>	<u>\$ 23,221,707</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 1,775,473,138</u>
Carrying amounts at December 31, 2016	<u>\$ 3,524,447</u>	<u>\$ 130,055,397</u>	<u>\$ 465,490,235</u>	<u>\$ 11,507,933</u>	<u>\$ -</u>	<u>\$ 387,199,675</u>	<u>\$ 997,777,687</u>

(Concluded)

The significant part of the Company's buildings includes main plants, mechanical and electrical power equipment and clean rooms, and the related depreciation is calculated using the estimated useful lives of 20 years, 10 years and 10 years, respectively.

16. INTANGIBLE ASSETS

	Goodwill	Technology License Fees	Software and System Design Costs	Patent and Others	Total
<u>Cost</u>					
Balance at January 1, 2017	\$ 6,007,975	\$ 9,546,007	\$ 22,243,595	\$ 5,386,435	\$ 43,184,012
Additions	-	897,861	3,021,085	349,265	4,268,211
Retirements	-	-	(75,237)	-	(75,237)
Reclassification	-	-	7,662	(17,960)	(10,298)
Effect of disposal of subsidiary	(13,499)	-	(7,662)	-	(21,161)
Effect of exchange rate changes	(345,774)	(611)	(3,225)	(1,594)	(351,204)
Balance at December 31, 2017	<u>\$ 5,648,702</u>	<u>\$ 10,443,257</u>	<u>\$ 25,186,218</u>	<u>\$ 5,716,146</u>	<u>\$ 46,994,323</u>
<u>Accumulated amortization and impairment</u>					
Balance at January 1, 2017	\$ -	\$ 6,147,200	\$ 18,144,428	\$ 4,277,538	\$ 28,569,166
Additions	-	1,548,263	2,310,742	487,731	4,346,736
Retirements	-	-	(75,237)	-	(75,237)
Reclassification	-	-	7,409	(17,070)	(9,661)
Impairment	13,520	-	-	-	13,520
Effect of disposal of subsidiary	(13,499)	-	(7,554)	-	(21,053)
Effect of exchange rate changes	(21)	(606)	(3,095)	(566)	(4,288)
Balance at December 31, 2017	<u>\$ -</u>	<u>\$ 7,694,857</u>	<u>\$ 20,376,693</u>	<u>\$ 4,747,633</u>	<u>\$ 32,819,183</u>
Carrying amounts at December 31, 2017	<u>\$ 5,648,702</u>	<u>\$ 2,748,400</u>	<u>\$ 4,809,525</u>	<u>\$ 968,513</u>	<u>\$ 14,175,140</u>
<u>Cost</u>					
Balance at January 1, 2016	\$ 6,104,784	\$ 8,454,304	\$ 19,474,428	\$ 4,879,026	\$ 38,912,542
Additions	-	1,091,261	2,788,512	519,289	4,399,062
Retirements	-	-	(5,273)	-	(5,273)
Effect of exchange rate changes	(96,809)	442	(14,072)	(11,880)	(122,319)
Balance at December 31, 2016	<u>\$ 6,007,975</u>	<u>\$ 9,546,007</u>	<u>\$ 22,243,595</u>	<u>\$ 5,386,435</u>	<u>\$ 43,184,012</u>
<u>Accumulated amortization and impairment</u>					
Balance at January 1, 2016	\$ -	\$ 4,779,388	\$ 16,431,666	\$ 3,635,608	\$ 24,846,662
Additions	-	1,367,370	1,730,834	645,202	3,743,406
Retirements	-	-	(5,273)	-	(5,273)
Effect of exchange rate changes	-	442	(12,799)	(3,272)	(15,629)
Balance at December 31, 2016	<u>\$ -</u>	<u>\$ 6,147,200</u>	<u>\$ 18,144,428</u>	<u>\$ 4,277,538</u>	<u>\$ 28,569,166</u>
Carrying amounts at December 31, 2016	<u>\$ 6,007,975</u>	<u>\$ 3,398,807</u>	<u>\$ 4,099,167</u>	<u>\$ 1,108,897</u>	<u>\$ 14,614,846</u>

The Company's goodwill has been tested for impairment at the end of the annual reporting period and the recoverable amount is determined based on the value in use. The value in use was calculated based on the cash flow forecast from the financial budgets covering the future five-year period, and the Company used annual discount rates of 8.5% and 8.4% in its test of impairment as of December 31, 2017 and 2016, respectively, to reflect the relevant specific risk in the cash-generating unit.

For the year ended December 31, 2017, the Company assessed goodwill impairment and recognized an impairment loss of NT\$13,520 thousand related to a subsidiary since the operating result of this cash generating unit was not as expected and the recoverable amount of goodwill was nil. Such impairment loss was recognized in other operating income and expenses. For the year ended December 31, 2016, the Company did not recognize any impairment loss on goodwill.

17. OTHER ASSETS

	December 31, 2017	December 31, 2016
Tax receivable	\$ 4,021,602	\$ 2,325,825
Prepaid expenses	1,559,963	1,007,026
Others	<u>1,623,995</u>	<u>1,553,003</u>
	<u>\$ 7,205,560</u>	<u>\$ 4,885,854</u>
Current portion	\$ 4,222,440	\$ 3,385,422
Noncurrent portion	<u>2,983,120</u>	<u>1,500,432</u>
	<u>\$ 7,205,560</u>	<u>\$ 4,885,854</u>

18. SHORT-TERM LOANS

	December 31, 2017	December 31, 2016
Unsecured loans		
Amount	<u>\$ 63,766,850</u>	<u>\$ 57,958,200</u>
Original loan content		
US\$ (in thousands)	\$ 2,150,000	\$ 1,800,000
Annual interest rate	1.54%-1.82%	0.87%-1.07%
Maturity date	Due by February 2018	Due by January 2017

19. PROVISIONS

The Company's current provisions were provisions for sales returns and allowances.

	Sales Returns and Allowances
<u>Year ended December 31, 2017</u>	
Balance, beginning of year	\$ 18,037,789
Provision	44,833,557
Payment	(48,884,704)
Effect of exchange rate changes	<u>(24,855)</u>
Balance, end of year	<u>\$ 13,961,787</u>
<u>Year ended December 31, 2016</u>	
Balance, beginning of year	\$ 10,163,536
Provision	36,519,312
Payment	(28,569,318)
Effect of exchange rate changes	<u>(75,741)</u>
Balance, end of year	<u>\$ 18,037,789</u>

Provisions for sales returns and allowances are estimated based on historical experience and the consideration of varying contractual terms, and are recognized as a reduction of revenue in the same year of the related product sales.

20. BONDS PAYABLE

	December 31, 2017	December 31, 2016
Domestic unsecured bonds	\$ 116,100,000	\$ 154,200,000
Overseas unsecured bonds	<u>34,107,850</u>	<u>37,028,850</u>
	150,207,850	191,228,850
Less: Discounts on bonds payable	(6,728)	(35,293)
Less: Current portion	<u>(58,401,122)</u>	<u>(38,100,000)</u>
	<u>\$ 91,800,000</u>	<u>\$ 153,093,557</u>

The major terms of domestic unsecured bonds are as follows:

Issuance	Tranche	Issuance Period	Total Amount	Coupon Rate	Repayment and Interest Payment
100-1	A	September 2011 to September 2016	\$ 10,500,000	1.40%	Bullet repayment; interest payable annually
	B	September 2011 to September 2018	7,500,000	1.63%	The same as above
100-2	A	January 2012 to January 2017	10,000,000	1.29%	The same as above

(Continued)

Issuance	Tranche	Issuance Period	Total Amount	Coupon Rate	Repayment and Interest Payment
100-2	B	January 2012 to January 2019	\$ 7,000,000	1.46%	Bullet repayment; interest payable annually
101-1	A	August 2012 to August 2017	9,900,000	1.28%	The same as above
	B	August 2012 to August 2019	9,000,000	1.40%	The same as above
101-2	A	September 2012 to September 2017	12,700,000	1.28%	The same as above
	B	September 2012 to September 2019	9,000,000	1.39%	The same as above
101-3	-	October 2012 to October 2022	4,400,000	1.53%	The same as above
101-4	A	January 2013 to January 2018	10,600,000	1.23%	The same as above
	B	January 2013 to January 2020	10,000,000	1.35%	The same as above
	C	January 2013 to January 2023	3,000,000	1.49%	The same as above
102-1	A	February 2013 to February 2018	6,200,000	1.23%	The same as above
	B	February 2013 to February 2020	11,600,000	1.38%	The same as above
	C	February 2013 to February 2023	3,600,000	1.50%	The same as above
102-2	A	July 2013 to July 2020	10,200,000	1.50%	The same as above
	B	July 2013 to July 2023	3,500,000	1.70%	The same as above
102-3	A	August 2013 to August 2017	4,000,000	1.34%	The same as above
	B	August 2013 to August 2019	8,500,000	1.52%	The same as above
102-4	A	September 2013 to September 2016	1,500,000	1.35%	The same as above
	B	September 2013 to September 2017	1,500,000	1.45%	The same as above
102-4	C	September 2013 to March 2019	1,400,000	1.60%	Bullet repayment; interest payable annually (interest for the six months prior to maturity will accrue on the basis of actual days and be repayable at maturity)
	D	September 2013 to March 2021	2,600,000	1.85%	The same as above
	E	September 2013 to March 2023	5,400,000	2.05%	The same as above
	F	September 2013 to September 2023	2,600,000	2.10%	Bullet repayment; interest payable annually

The major terms of overseas unsecured bonds are as follows:

Issuance Period	Total Amount (US\$ in Thousands)	Coupon Rate	Repayment and Interest Payment
April 2013 to April 2016	\$ 350,000	0.95%	Bullet repayment; interest payable semi-annually
April 2013 to April 2018	1,150,000	1.625%	The same as above

21. RETIREMENT BENEFIT PLANS

a. Defined contribution plans

The plan under the R.O.C. Labor Pension Act (the “Act”) is deemed a defined contribution plan. Pursuant to the Act, TSMC, Mutual-Pak and VisEra Tech have made monthly contributions equal to 6% of each employee’s monthly salary to employees’ pension accounts. Furthermore, TSMC North America, TSMC China, TSMC Nanjing, TSMC Europe, TSMC Canada, TSMC Technology and TSMC Solar Europe GmbH also make monthly contributions at certain percentages of the basic salary of their employees. Accordingly, the Company recognized expenses of NT\$2,369,940 thousand and NT\$2,164,900 thousand for the years ended December 31, 2017 and 2016, respectively.

b. Defined benefit plans

TSMC has defined benefit plans under the R.O.C. Labor Standards Law that provide benefits based on an employee’s length of service and average monthly salary for the six-month period prior to retirement. The Company contributes an amount equal to 2% of salaries paid each month to their respective pension funds (the Funds), which are administered by the Labor Pension Fund Supervisory Committee (the Committee) and deposited in the Committee’s name in the Bank of Taiwan. Before the end of each year, the Company assesses the balance in the Funds. If the amount of the balance in the Funds is inadequate to pay retirement benefits for employees who conform to retirement requirements in the next year, the Company is required to fund the difference in one appropriation that should be made before the end of March of the next year. The Funds are operated and managed by the government’s designated authorities; as such, the Company does not have any right to intervene in the investments of the Funds.

Amounts recognized in respect of these defined benefit plans were as follows:

	Years Ended December 31	
	2017	2016
Current service cost	\$ 145,026	\$ 132,786
Net interest expense	<u>126,525</u>	<u>139,355</u>
Components of defined benefit costs recognized in profit or loss	<u>271,551</u>	<u>272,141</u>
Remeasurement on the net defined benefit liability:		
Return on plan assets (excluding amounts included in net interest expense)	29,290	45,721
Actuarial loss arising from experience adjustments	483,846	38,195
Actuarial loss(gain) arising from changes in financial assumptions	(258,455)	694,632
Actuarial loss arising from changes in demographic assumptions	<u>-</u>	<u>278,672</u>
Components of defined benefit costs recognized in other comprehensive income	<u>254,681</u>	<u>1,057,220</u>
Total	<u>\$ 526,232</u>	<u>\$ 1,329,361</u>

The pension costs of the aforementioned defined benefit plans were recognized in profit or loss by the following categories:

	Years Ended December 31	
	2017	2016
Cost of revenue	\$ 175,357	\$ 176,977
Research and development expenses	75,340	73,395
General and administrative expenses	16,669	17,367
Marketing expenses	<u>4,185</u>	<u>4,402</u>
	<u>\$ 271,551</u>	<u>\$ 272,141</u>

The amounts arising from the defined benefit obligation of the Company were as follows:

	December 31, 2017	December 31, 2016
Present value of defined benefit obligation	\$ 12,774,593	\$ 12,480,480
Fair value of plan assets	<u>(3,923,889)</u>	<u>(3,929,072)</u>
Net defined benefit liability	<u>\$ 8,850,704</u>	<u>\$ 8,551,408</u>

Movements in the present value of the defined benefit obligation were as follows:

	Years Ended December 31	
	2017	2016
Balance, beginning of year	\$ 12,480,480	\$ 11,318,174
Current service cost	145,026	132,786
Interest expense	185,561	212,909
Remeasurement losses (gains):		
Actuarial loss arising from experience adjustments	483,846	38,195
Actuarial loss (gain) arising from changes in financial assumptions	(258,455)	694,632
Actuarial loss arising from changes in demographic assumptions	-	278,672
Benefits paid from plan assets	<u>(261,865)</u>	<u>(194,888)</u>
Balance, end of year	<u>\$ 12,774,593</u>	<u>\$ 12,480,480</u>

Movements in the fair value of the plan assets were as follows:

	Years Ended December 31	
	2017	2016
Balance, beginning of year	\$ 3,929,072	\$ 3,870,148
Interest income	59,036	73,554
Remeasurement losses:		
Return on plan assets (excluding amounts included in net interest expense)	(29,290)	(45,721)
Contributions from employer	226,936	225,979
Benefits paid from plan assets	<u>(261,865)</u>	<u>(194,888)</u>
Balance, end of year	<u>\$ 3,923,889</u>	<u>\$ 3,929,072</u>

The fair value of the plan assets by major categories at the end of reporting period was as follows:

	December 31, 2017	December 31, 2016
Cash	\$ 707,477	\$ 818,426
Equity instruments	1,993,336	1,852,950
Debt instruments	<u>1,223,076</u>	<u>1,257,696</u>
	<u>\$ 3,923,889</u>	<u>\$ 3,929,072</u>

The actuarial valuations of the present value of the defined benefit obligation were carried out by qualified actuaries. The principal assumptions of the actuarial valuation were as follows:

	<u>Measurement Date</u>	
	December 31, 2017	December 31, 2016
Discount rate	1.65%	1.50%
Future salary increase rate	3.00%	3.00%

Through the defined benefit plans under the R.O.C. Labor Standards Law, the Company is exposed to the following risks:

- 1) Investment risk: The pension funds are invested in equity and debt securities, bank deposits, etc. The investment is conducted at the discretion of the government's designated authorities or under the mandated management. However, under the R.O.C. Labor Standards Law, the rate of return on assets shall not be less than the average interest rate on a two-year time deposit published by the local banks and the government is responsible for any shortfall in the event that the rate of return is less than the required rate of return.
- 2) Interest risk: A decrease in the government bond interest rate will increase the present value of the defined benefit obligation; however, this will be partially offset by an increase in the return on the debt investments of the plan assets.

Assuming a hypothetical decrease in interest rate at the end of the reporting period contributed to a decrease of 0.5% in the discount rate and all other assumptions were held constant, the present value of the defined benefit obligation would increase by NT\$890,116 thousand and NT\$970,282 thousand as of December 31, 2017 and 2016, respectively.

- 3) Salary risk: The present value of the defined benefit obligation is calculated by reference to the future salaries of plan participants. As such, an increase in the salary of the plan participants will increase the present value of the defined benefit obligation.

Assuming the expected salary rate increases by 0.5% at the end of the reporting period and all other assumptions were held constant, the present value of the defined benefit obligation would increase by NT\$873,801 thousand and NT\$951,424 thousand as of December 31, 2017 and 2016, respectively.

The sensitivity analysis presented above may not be representative of the actual change in the defined benefit obligation as it is unlikely that the change in assumptions would occur in isolation of one another as some of the assumptions may be correlated.

Furthermore, in presenting the above sensitivity analysis, the present value of the defined benefit obligation has been calculated using the projected unit credit method at the end of the reporting period, which is the same as that applied in calculating the defined benefit obligation liability.

The Company expects to make contributions of NT\$233,745 thousand to the defined benefit plans in the next year starting from December 31, 2017. The weighted average duration of the defined benefit obligation is 13 years.

22. GUARANTEE DEPOSITS

	December 31, 2017	December 31, 2016
Capacity guarantee	\$ 13,346,550	\$ 20,929,350
Receivables guarantee	2,427,548	5,559,960
Others	<u>306,521</u>	<u>181,312</u>
	<u>\$ 16,080,619</u>	<u>\$ 26,670,622</u>
Current portion (classified under accrued expenses and other current liabilities)	\$ 8,493,829	\$ 12,000,189
Noncurrent portion	<u>7,586,790</u>	<u>14,670,433</u>
	<u>\$ 16,080,619</u>	<u>\$ 26,670,622</u>

Some of guarantee deposits were refunded to customers by offsetting related accounts receivable.

23. EQUITY

a. Capital stock

	December 31, 2017	December 31, 2016
Authorized shares (in thousands)	<u>28,050,000</u>	<u>28,050,000</u>
Authorized capital	<u>\$ 280,500,000</u>	<u>\$ 280,500,000</u>
Issued and paid shares (in thousands)	<u>25,930,380</u>	<u>25,930,380</u>
Issued capital	<u>\$ 259,303,805</u>	<u>\$ 259,303,805</u>

A holder of issued common shares with par value of NT\$10 per share is entitled to vote and to receive dividends.

The authorized shares include 500,000 thousand shares allocated for the exercise of employee stock options.

As of December 31, 2017, 1,068,165 thousand ADSs of TSMC were traded on the NYSE. The number of common shares represented by the ADSs was 5,340,823 thousand shares (one ADS represents five common shares).

b. Capital surplus

	December 31, 2017	December 31, 2016
Additional paid-in capital	\$ 24,184,939	\$ 24,184,939
From merger	22,804,510	22,804,510
From convertible bonds	8,892,847	8,892,847
From share of changes in equities of subsidiaries	118,792	107,798
From share of changes in equities of associates	289,240	282,155
Donations	<u>19,208</u>	<u>55</u>
	<u>\$ 56,309,536</u>	<u>\$ 56,272,304</u>

Under the relevant laws, the capital surplus generated from donations and the excess of the issuance price over the par value of capital stock (including the stock issued for new capital, mergers and convertible bonds) may be used to offset a deficit; in addition, when the Company has no deficit, such capital surplus may be distributed as cash dividends or stock dividends up to a certain percentage of TSMC's paid-in capital. The capital surplus from share of changes in equities of subsidiaries and associates and dividend of a claim extinguished by a prescription may be used to offset a deficit; however, when generated from issuance of restricted shares for employees, such capital surplus may not be used for any purpose.

c. Retained earnings and dividend policy

In accordance with the amendments to the R.O.C. Company Act in May 2015, the recipients of dividends and bonuses are limited to shareholders and do not include employees. The amendments to TSMC's Articles of Incorporation on earnings distribution policy had been approved by TSMC's shareholders in its meeting held on June 7, 2016. For policy about the profit sharing bonus to employees, please refer to Note 31.

TSMC's amended Articles of Incorporation provide that, when allocating the net profits for each fiscal year, TSMC shall first offset its losses in previous years and then set aside the following items accordingly:

- 1) Legal capital reserve at 10% of the profits left over, until the accumulated legal capital reserve equals TSMC's paid-in capital;
- 2) Special capital reserve in accordance with relevant laws or regulations or as requested by the authorities in charge;
- 3) Any balance left over shall be allocated according to the resolution of the shareholders' meeting.

TSMC's Articles of Incorporation also provide that profits of TSMC may be distributed by way of cash dividend and/or stock dividend. However, distribution of earnings shall be made preferably by way of cash dividend. Distribution of earnings may also be made by way of stock dividend; provided that the ratio for stock dividend shall not exceed 50% of the total distribution.

Any appropriations of the profits are subject to shareholders' approval in the following year.

The appropriation for legal capital reserve shall be made until the reserve equals the Company's paid-in capital. The reserve may be used to offset a deficit, or be distributed as dividends in cash or stocks for the portion in excess of 25% of the paid-in capital if the Company incurs no loss.

Pursuant to existing regulations, the Company is required to set aside additional special capital reserve equivalent to the net debit balance of the other components of stockholders' equity, such as the accumulated balance of foreign currency translation reserve, unrealized valuation gain/loss from available-for-sale financial assets, gain/loss from changes in fair value of hedging instruments in cash flow hedges, etc. For the subsequent decrease in the deduction amount to stockholders' equity, any special reserve appropriated may be reversed to the extent that the net debit balance reverses.

The appropriations of 2016 and 2015 earnings have been approved by TSMC's shareholders in its meetings held on June 8, 2017 and June 7, 2016, respectively. The appropriations and dividends per share were as follows:

	<u>Appropriation of Earnings</u>		<u>Dividends Per Share (NT\$)</u>	
	<u>For Fiscal Year 2016</u>	<u>For Fiscal Year 2015</u>	<u>For Fiscal Year 2016</u>	<u>For Fiscal Year 2015</u>
Legal capital reserve	\$ 33,424,718	\$ 30,657,384		
Cash dividends to shareholders	<u>181,512,663</u>	<u>155,582,283</u>	\$ 7	\$ 6
	<u>\$ 214,937,381</u>	<u>\$ 186,239,667</u>		

TSMC's appropriations of earnings for 2017 had been approved in the meeting of the Board of Directors held on February 13, 2018. The appropriations and dividends per share were as follows:

	<u>Appropriation of Earnings</u>	<u>Dividends Per Share (NT\$)</u>
	<u>For Fiscal Year 2017</u>	<u>For Fiscal Year 2017</u>
Legal capital reserve	\$ 34,311,148	
Special capital reserve	26,907,527	
Cash dividends to shareholders	<u>207,443,044</u>	\$ 8
	<u>\$ 268,661,719</u>	

The appropriations of earnings for 2017 are to be presented for approval in the TSMC's shareholders' meeting to be held on June 5, 2018 (expected).

Under the Integrated Income Tax System that became effective on January 1, 1998, the R.O.C. resident shareholders are allowed a tax credit for their proportionate share of the income tax paid by TSMC on earnings generated since January 1, 1998.

d. Others

Changes in others were as follows:

	Year Ended December 31, 2017				
	Foreign Currency Translation Reserve	Unrealized Gain/Loss from Available-for- sale Financial Assets	Cash Flow Hedges Reserve	Unearned Stock-Based Employee Compensation	Total
Balance, beginning of year	\$ 1,661,237	\$ 2,641	\$ 105	\$ -	\$ 1,663,983
Exchange differences arising on translation of foreign operations	(28,257,449)	-	-	-	(28,257,449)
Changes in fair value of available-for-sale financial assets	-	(154,680)	-	-	(154,680)
Cumulative (gain)/loss reclassified to profit or loss upon disposal of available-for-sale financial assets	-	(61,182)	-	-	(61,182)
Gain/(loss) arising on changes in the fair value of hedging instruments	-	-	99,534	-	99,534
Transferred to initial carrying amount of hedged items	-	-	(94,851)	-	(94,851)
Share of other comprehensive income (loss) of associates	(101,468)	2,121	-	-	(99,347)
Share of unearned stock-based employee compensation of associates	-	-	-	(10,290)	(10,290)
Income tax effect	-	(2,974)	(562)	-	(3,536)
Balance, end of year	<u>\$ (26,697,680)</u>	<u>\$ (214,074)</u>	<u>\$ 4,226</u>	<u>\$ (10,290)</u>	<u>\$ (26,917,818)</u>
	Year Ended December 31, 2016				
	Foreign Currency Translation Reserve	Unrealized Gain/Loss from Available-for- sale Financial Assets	Cash Flow Hedges Reserve	Total	
Balance, beginning of year	\$ 11,039,949	\$ 734,771	\$ (607)	\$ 11,774,113	
Exchange differences arising on translation of foreign operations	(9,409,190)	-	-	(9,409,190)	
Other comprehensive income reclassified to profit or loss upon disposal of subsidiaries	36,105	-	-	36,105	
Changes in fair value of available-for-sale financial assets	-	(696,240)	-	(696,240)	
Cumulative (gain)/loss reclassified to profit or loss upon disposal of available-for-sale financial assets	-	4,071	-	4,071	
Share of other comprehensive income (loss) of associates	(915)	24,684	712	24,481	
Other comprehensive loss reclassified to profit or loss upon disposal of associates	(4,712)	(3,469)	-	(8,181)	
Income tax effect	-	(61,176)	-	(61,176)	
Balance, end of year	<u>\$ 1,661,237</u>	<u>\$ 2,641</u>	<u>\$ 105</u>	<u>\$ 1,663,983</u>	

The aforementioned other equity includes the changes in other equities of TSMC and TSMC's share of its subsidiaries and associates.

24. NET REVENUE

	Years Ended December 31	
	2017	2016
Net revenue from sale of goods	\$ 976,923,256	\$ 947,415,900
Net revenue from royalties	<u>523,985</u>	<u>522,444</u>
	<u>\$ 977,447,241</u>	<u>\$ 947,938,344</u>

25. OTHER OPERATING INCOME AND EXPENSES, NET

	Years Ended December 31	
	2017	2016
Gain (loss) on disposal or retirement of property, plant and equipment, net	\$ (1,097,908)	\$ 46,548
Others	<u>(267,603)</u>	<u>(16,735)</u>
	<u>\$ (1,365,511)</u>	<u>\$ 29,813</u>

26. OTHER INCOME

	Years Ended December 31	
	2017	2016
Interest income		
Bank deposits	\$ 6,412,823	\$ 4,892,652
Available-for-sale financial assets	2,091,435	816,185
Held-to-maturity financial assets	568,552	383,261
Structured product	<u>391,896</u>	<u>225,402</u>
	9,464,706	6,317,500
Dividend income	<u>145,588</u>	<u>137,401</u>
	<u>\$ 9,610,294</u>	<u>\$ 6,454,901</u>

27. FINANCE COSTS

	Years Ended December 31	
	2017	2016
Interest expense		
Corporate bonds	\$ 2,563,544	\$ 3,014,753
Bank loans	766,625	291,178
Others	<u>144</u>	<u>222</u>
	<u>\$ 3,330,313</u>	<u>\$ 3,306,153</u>

28. OTHER GAINS AND LOSSES, NET

	Years Ended December 31	
	2017	2016
Gain (loss) on disposal of financial assets, net		
Available-for-sale financial assets	\$ 76,986	\$ (4,014)
Financial assets carried at cost	12,809	37,241
Loss on disposal of investments accounted for using equity method, net	-	(259,960)
Gain (loss) from disposal of subsidiaries	17,343	(36,105)
Other gains	409,852	176,734
Net gain (loss) on financial instruments at FVTPL		
Held for trading	2,253,651	467,051
Designated as at FVTPL	131,037	(37,369)
Gain (loss) arising from fair value hedges, net	(30,293)	16,973
Impairment loss of financial assets		
Financial assets carried at cost	(29,603)	(122,240)
Other losses	(24,424)	(42,379)
	<u>\$ 2,817,358</u>	<u>\$ 195,932</u>

29. INCOME TAX

- a. Income tax expense recognized in profit or loss

Income tax expense consisted of the following:

	Years Ended December 31	
	2017	2016
Current income tax expense		
Current tax expense recognized in the current year	\$ 57,503,831	\$ 54,315,433
Income tax adjustments on prior years	(896,147)	(1,041,762)
Other income tax adjustments	152,790	122,461
	<u>56,760,474</u>	<u>53,396,132</u>
Deferred income tax expense (benefit)		
Effect of tax rate changes	561,818	-
The origination and reversal of temporary differences	(4,336,110)	(1,775,023)
Investment tax credits and operating loss carryforward	-	35
	<u>(3,774,292)</u>	<u>(1,774,988)</u>
Income tax expense recognized in profit or loss	<u>\$ 52,986,182</u>	<u>\$ 51,621,144</u>

A reconciliation of income before income tax and income tax expense recognized in profit or loss was as follows:

	Years Ended December 31	
	2017	2016
Income before tax	<u>\$ 396,133,030</u>	<u>\$ 385,959,380</u>
Income tax expense at the statutory rate	\$ 69,608,602	\$ 66,945,088
Tax effect of adjusting items:		
Deductible items in determining taxable income	(1,410,955)	(51,324)
Tax-exempt income	(16,901,134)	(19,594,962)
Additional income tax on unappropriated earnings	11,835,948	11,957,213
Effect of tax rate changes on deferred income tax	561,818	-
The origination and reversal of temporary differences	(4,336,110)	(1,775,023)
Income tax credits	(5,628,630)	(4,940,147)
Remeasurement of operating loss carryforward	-	(400)
	<u>53,729,539</u>	<u>52,540,445</u>
Income tax adjustments on prior years	(896,147)	(1,041,762)
Other income tax adjustments	<u>152,790</u>	<u>122,461</u>
Income tax expense recognized in profit or loss	<u>\$ 52,986,182</u>	<u>\$ 51,621,144</u>

For the years ended December 31, 2017 and 2016, the Company applied a tax rate of 17% for entities subject to the R.O.C. Income Tax Law; for other jurisdictions, the Company measures taxes by using the applicable tax rate for each individual jurisdiction.

In January 2018, it was announced that the Income Tax Law in the R.O.C. was amended and, starting from 2018, the corporate income tax rate will be adjusted from 17% to 20%. In addition, the tax rate applicable to unappropriated earnings will be reduced from 10% to 5%. Deferred tax assets and deferred tax liabilities recognized as of December 31, 2017 are expected to be adjusted and would increase by NT\$1,473,065 thousand and NT\$15,096 thousand, respectively, in 2018.

b. Income tax expense recognized in other comprehensive income

	Years Ended December 31	
	2017	2016
Deferred income tax benefit (expense)		
Related to remeasurement of defined benefit obligation	\$ 30,562	\$ 126,867
Related to unrealized gain/loss on available-for-sale financial assets	(2,974)	(61,176)
Related to gain/loss on cash flow hedges	<u>(562)</u>	<u>-</u>
	<u>\$ 27,026</u>	<u>\$ 65,691</u>

c. Deferred income tax balance

The analysis of deferred income tax assets and liabilities was as follows:

	December 31, 2017	December 31, 2016
<u>Deferred income tax assets</u>		
Temporary differences		
Depreciation	\$ 8,401,266	\$ 4,244,214
Provision for sales returns and allowance	1,637,713	1,512,061
Net defined benefit liability	975,324	939,543
Unrealized loss on inventories	629,442	737,247
Deferred compensation cost	266,521	378,740
Others	195,197	445,133
Operating loss carryforward	<u>-</u>	<u>14,483</u>
	<u>\$ 12,105,463</u>	<u>\$ 8,271,421</u>
<u>Deferred income tax liabilities</u>		
Temporary differences		
Unrealized exchange gains	\$ (169,480)	\$ (48,736)
Available-for-sale financial assets	(95,421)	(92,447)
Cash flow hedges	<u>(37,304)</u>	<u>-</u>
	<u>\$ (302,205)</u>	<u>\$ (141,183)</u>

	Year Ended December 31, 2017					Balance, End of Year
	Balance, Beginning of Year	Recognized in		Effect of Disposal of Subsidiary	Effect of Exchange Rate Changes	
		Profit or Loss	Other Comprehensive Income			
<u>Deferred income tax assets</u>						
Temporary differences						
Depreciation	\$ 4,244,214	\$ 4,207,209	\$ -	\$ -	\$ (50,157)	\$ 8,401,266
Provision for sales returns and allowance	1,512,061	129,971	-	-	(4,319)	1,637,713
Net defined benefit liability	939,543	5,219	30,562	-	-	975,324
Unrealized loss on inventories	737,247	(105,068)	-	-	(2,737)	629,442
Deferred compensation cost	378,740	(83,124)	-	-	(29,095)	266,521
Others	445,133	(222,429)	-	-	(27,507)	195,197
Operating loss carryforward	<u>14,483</u>	<u>-</u>	<u>-</u>	<u>(14,483)</u>	<u>-</u>	<u>-</u>
	<u>\$ 8,271,421</u>	<u>\$ 3,931,778</u>	<u>\$ 30,562</u>	<u>\$ (14,483)</u>	<u>\$ (113,815)</u>	<u>\$ 12,105,463</u>
<u>Deferred income tax liabilities</u>						
Temporary differences						
Unrealized exchange gains	\$ (48,736)	\$ (120,744)	\$ -	\$ -	\$ -	\$ (169,480)
Available-for-sale financial assets	(92,447)	-	(2,974)	-	-	(95,421)
Cash flow hedges	<u>-</u>	<u>(36,742)</u>	<u>(562)</u>	<u>-</u>	<u>-</u>	<u>(37,304)</u>
	<u>\$ (141,183)</u>	<u>\$ (157,486)</u>	<u>\$ (3,536)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (302,205)</u>

	Year Ended December 31, 2016				Balance, End of Year
	Balance, Beginning of Year	Profit or Loss	Other Comprehensive Income	Effect of Exchange Rate Changes	
<u>Deferred income tax assets</u>					
Temporary differences					
Depreciation	\$ 2,852,961	\$ 1,437,648	\$ -	\$ (46,395)	\$ 4,244,214
Provision for sales returns and allowance	1,141,511	371,410	-	(860)	1,512,061
Net defined benefit liability	895,486	(82,810)	126,867	-	939,543
Unrealized loss on inventories	622,741	115,490	-	(984)	737,247
Deferred compensation cost	316,283	69,311	-	(6,854)	378,740
Goodwill from business combination	10,025	(9,836)	-	(189)	-
Others	531,449	(77,454)	-	(8,862)	445,133
Operating loss carryforward	<u>14,518</u>	<u>(35)</u>	<u>-</u>	<u>-</u>	<u>14,483</u>
	<u>\$ 6,384,974</u>	<u>\$ 1,823,724</u>	<u>\$ 126,867</u>	<u>\$ (64,144)</u>	<u>\$ 8,271,421</u>
<u>Deferred income tax liabilities</u>					
Temporary differences					
Available-for-sale financial assets	\$ (31,271)	\$ -	\$ (61,176)	\$ -	\$ (92,447)
Unrealized exchange gains	<u>-</u>	<u>(48,736)</u>	<u>-</u>	<u>-</u>	<u>(48,736)</u>
	<u>\$ (31,271)</u>	<u>\$ (48,736)</u>	<u>\$ (61,176)</u>	<u>\$ -</u>	<u>\$ (141,183)</u>

- d. The investment operating loss carryforward and deductible temporary differences for which no deferred income tax assets have been recognized

The information of the operating loss carryforward for which no deferred tax assets have been recognized was as follows:

	December 31, 2017	December 31, 2016
Expiry period		
1 - 4 years	\$ -	\$ 136,703
5 - 10 years	<u>-</u>	<u>41,389</u>
	<u>\$ -</u>	<u>\$ 178,092</u>

As of December 31, 2017 and 2016, the aggregate deductible temporary differences for which no deferred income tax assets have been recognized amounted to NT\$26,536,307 thousand and NT\$1,919,784 thousand, respectively.

- e. Unused tax-exemption information

As of December 31, 2017, the profits generated from the following projects of TSMC are exempt from income tax for a five-year period:

	Tax-exemption Period
Construction and expansion of 2007 by TSMC	2014 to 2018
Construction and expansion of 2008 by TSMC	2015 to 2019
Construction and expansion of 2009 by TSMC	2018 to 2022

- f. The information of unrecognized deferred income tax liabilities associated with investments

As of December 31, 2017 and 2016, the aggregate taxable temporary differences associated with investments in subsidiaries not recognized as deferred income tax liabilities amounted to NT\$95,003,344 thousand and NT\$83,181,401 thousand, respectively.

g. Integrated income tax information

	December 31, 2017	December 31, 2016
Balance of the Imputation Credit Account - TSMC	<u>\$ 114,264,283</u>	<u>\$ 82,072,562</u>

The estimated and actual creditable ratio for distribution of TSMC's earnings of 2017 and 2016 were 14.69% and 13.90%, respectively; while the creditable ratio for individual shareholders residing in the R.O.C. is half of the original creditable ratio according to the R.O.C. Income Tax Law. However, effective from January 1, 2018, integrated income tax system were abrogated and imputation credit account is no longer applicable based on amended R.O.C. Income Tax Law in January 2018.

All of TSMC's earnings generated prior to December 31, 1997 have been appropriated.

h. Income tax examination

The tax authorities have examined income tax returns of TSMC through 2014. All investment tax credit adjustments assessed by the tax authorities have been recognized accordingly.

30. EARNINGS PER SHARE

	Years Ended December 31	
	2017	2016
Basic EPS	<u>\$ 13.23</u>	<u>\$ 12.89</u>
Diluted EPS	<u>\$ 13.23</u>	<u>\$ 12.89</u>

EPS is computed as follows:

	Amounts (Numerator)	Number of Shares (Denominator) (In Thousands)	EPS (NT\$)
<u>Year ended December 31, 2017</u>			
Basic/Diluted EPS			
Net income available to common shareholders of the parent	<u>\$ 343,111,476</u>	<u>25,930,380</u>	<u>\$ 13.23</u>
<u>Year ended December 31, 2016</u>			
Basic/Diluted EPS			
Net income available to common shareholders of the parent	<u>\$ 334,247,180</u>	<u>25,930,380</u>	<u>\$ 12.89</u>

31. ADDITIONAL INFORMATION OF EXPENSES BY NATURE

	Years Ended December 31	
	2017	2016
a. Depreciation of property, plant and equipment		
Recognized in cost of revenue	\$ 235,985,189	\$ 203,476,848
Recognized in operating expenses	19,746,263	16,583,067
Recognized in other operating income and expenses	<u>64,510</u>	<u>25,083</u>
	<u>\$ 255,795,962</u>	<u>\$ 220,084,998</u>
b. Amortization of intangible assets		
Recognized in cost of revenue	\$ 2,135,521	\$ 2,028,492
Recognized in operating expenses	<u>2,211,215</u>	<u>1,714,914</u>
	<u>\$ 4,346,736</u>	<u>\$ 3,743,406</u>
c. Research and development expenses	<u>\$ 80,732,463</u>	<u>\$ 71,207,703</u>
d. Employee benefits expenses		
Post-employment benefits		
Defined contribution plans	\$ 2,369,940	\$ 2,164,900
Defined benefit plans	<u>271,551</u>	<u>272,141</u>
	2,641,491	2,437,041
Other employee benefits	<u>101,488,608</u>	<u>97,248,082</u>
	<u>\$ 104,130,099</u>	<u>\$ 99,685,123</u>
Employee benefits expense summarized by function		
Recognized in cost of revenue	\$ 61,026,107	\$ 58,493,500
Recognized in operating expenses	<u>43,103,992</u>	<u>41,191,623</u>
	<u>\$ 104,130,099</u>	<u>\$ 99,685,123</u>

In accordance with the amendments to the R.O.C. Company Act in May 2015 and the amended TSMC's Articles of Incorporation approved by TSMC's shareholders in its meeting held on June 7, 2016, TSMC shall allocate compensation to directors and profit sharing bonus to employees of TSMC not more than 0.3% and not less than 1% of annual profits during the period, respectively.

TSMC accrued profit sharing bonus to employees based on a percentage of net income before income tax, profit sharing bonus to employees and compensation to directors during the period, which amounted to NT\$23,019,082 thousand and NT\$22,418,339 thousand for the years ended December 31, 2017 and 2016, respectively; compensation to directors was expensed based on estimated amount payable. If there is a change in the proposed amounts after the annual consolidated financial statements are authorized for issue, the differences are recorded as a change in accounting estimate.

TSMC's profit sharing bonus to employees and compensation to directors in the amounts of NT\$23,019,082 thousand and NT\$368,919 thousand in cash for 2017, respectively, and profit sharing bonus to employees and compensation to directors in the amounts of NT\$22,418,339 thousand and NT\$376,432 thousand in cash for 2016, respectively, had been approved by the Board of Directors of TSMC held on February 13, 2018 and February 14, 2017, respectively. There is no significant difference between the aforementioned approved amounts and the amounts charged against earnings of 2017 and 2016, respectively.

TSMC's profit sharing bonus to employees and compensation to directors in the amounts of NT\$20,556,888 thousand and NT\$356,186 thousand in cash for 2015, respectively, had been approved by the Board of Directors on February 2, 2016. The profit sharing bonus to employees and compensation to directors in cash for 2015 had been reported to TSMC's shareholders in its meeting held on June 7, 2016, after the amended TSMC's Articles of Incorporation had been approved. The aforementioned approved amount has no difference with the one recognized in the consolidated financial statements for the year ended December 31, 2015.

The information about the appropriations of TSMC's profit sharing bonus to employees and compensation to directors is available at the Market Observation Post System website.

32. CAPITAL MANAGEMENT

The Company requires significant amounts of capital to build and expand its production facilities and acquire additional equipment. In consideration of the industry dynamics, the Company manages its capital in a manner to ensure that it has sufficient and necessary financial resources to fund its working capital needs, capital asset purchases, research and development activities, dividend payments, debt service requirements and other business requirements associated with its existing operations over the next 12 months.

33. FINANCIAL INSTRUMENTS

a. Categories of financial instruments

	December 31, 2017	December 31, 2016
Financial assets		
FVTPL (Note 1)	\$ 569,751	\$ 6,451,112
Available-for-sale financial assets (Note 2)	98,248,410	71,891,234
Held-to-maturity financial assets	20,821,714	38,917,677
Hedging derivative financial assets	34,394	5,550
Loans and receivables (Note 3)	<u>684,416,654</u>	<u>673,592,938</u>
	<u>\$ 804,090,923</u>	<u>\$ 790,858,511</u>
Financial liabilities		
FVTPL (Note 1)	\$ 26,709	\$ 191,135
Hedging derivative financial liabilities	15,562	-
Amortized cost (Note 4)	<u>340,501,266</u>	<u>387,046,137</u>
	<u>\$ 340,543,537</u>	<u>\$ 387,237,272</u>

Note 1: Including held for trading and designated as at FVTPL.

Note 2: Including financial assets carried at cost.

Note 3: Including cash and cash equivalents, notes and accounts receivable (including related parties), other receivables and refundable deposits.

Note 4: Including short-term loans, accounts payable (including related parties), payables to contractors and equipment suppliers, accrued expenses and other current liabilities, bonds payable, long-term bank loans, and guarantee deposits.

b. Financial risk management objectives

The Company seeks to ensure sufficient cost-efficient funding readily available when needed. The Company manages its exposure to foreign currency risk, interest rate risk, equity price risk, credit risk and liquidity risk with the objective to reduce the potentially adverse effects the market uncertainties may have on its financial performance.

The plans for material treasury activities are reviewed by Audit Committees and/or Board of Directors in accordance with procedures required by relevant regulations or internal controls. During the implementation of such plans, Corporate Treasury function must comply with certain treasury procedures that provide guiding principles for overall financial risk management and segregation of duties.

c. Market risk

The Company is exposed to the financial market risks, primarily changes in foreign currency exchange rates, interest rates and equity investment prices.

Foreign currency risk

Most of the Company's operating activities are denominated in foreign currencies. Consequently, the Company is exposed to foreign currency risk. To protect against reductions in value and the volatility of future cash flows caused by changes in foreign exchange rates, the Company utilizes derivative financial instruments, such as forward exchange contracts and cross currency swaps, and non-derivative financial instruments, such as foreign currency-denominated debt, to partially hedge its currency exposure.

The Company's sensitivity analysis of foreign currency risk mainly focuses on the foreign currency monetary items and the derivatives financial instruments at the end of the reporting period. Assuming an unfavorable 10% movement in the levels of foreign exchanges relative to the New Taiwan dollar, the net income for the years ended December 31, 2017 and 2016 would have decreased by NT\$867,910 thousand and NT\$111,347 thousand, respectively, and the other comprehensive income for the year ended December 31, 2017 would have decreased by NT\$265,875 thousand.

Interest rate risk

The Company is exposed to interest rate risk primarily related to its outstanding debt and investments in fixed income securities. All of the Company's bonds payable have fixed interest rates and are measured at amortized cost. As such, changes in interest rates would not affect the future cash flows. On the other hand, because interest rates of the Company's long-term bank loans are floating, changes in interest rates would affect the future cash flows but not the fair value.

Assuming the amount of the long-term bank loans at the end of the reporting period had been outstanding for the entire period and all other variables were held constant, a hypothetical 100 basis point (1.00%) increase in interest rates would have resulted in an increase in the interest expense, net of tax, by approximately NT\$261 thousand for the year ended December 31, 2016. As of December 31, 2017, the Company had no outstanding long-term bank loans.

The Company classified its investments in fixed income securities as held-to-maturity and available-for-sale financial assets. Because held-to-maturity fixed income securities are measured at amortized cost, changes in interest rates would not affect the fair value. On the other hand, available-for-sale fixed income securities are exposed to fair value fluctuations caused by changes in interest rates. The Company utilized interest rate futures to partially hedge the interest rate risk on its available-for-sale fixed income investments. These hedges may offset only a small portion of the financial impact from movements in interest rates.

Based on a sensitivity analysis performed at the end of the reporting period, a hypothetical 100 basis points (1.00%) increase in interest rates across all maturities would have resulted in a decrease in other comprehensive income by NT\$2,119,713 thousand and NT\$1,600,929 thousand for the years ended December 31, 2017 and 2016, respectively.

Other price risk

The Company is exposed to equity price risk arising from available-for-sale equity investments.

Assuming a hypothetical decrease of 5% in prices of the equity investments at the end of the reporting period for the years ended December 31, 2017 and 2016, the other comprehensive income would have decreased by NT\$351,520 thousand and NT\$342,565 thousand, respectively.

d. Credit risk management

Credit risk refers to the risk that a counterparty will default on its contractual obligations resulting in financial loss to the Company. The Company is exposed to credit risk from operating activities, primarily trade receivables, and from investing activities, primarily deposits, fixed-income investments and other financial instruments with banks. Credit risk is managed separately for business related and financial related exposures. As of the end of the reporting period, the Company's maximum credit risk exposure is mainly from the carrying amount of financial assets.

Business related credit risk

The Company has considerable trade receivables outstanding with its customers worldwide. A substantial majority of the Company's outstanding trade receivables are not covered by collateral or credit insurance. While the Company has procedures to monitor and limit exposure to credit risk on trade receivables, there can be no assurance such procedures will effectively limit its credit risk and avoid losses. This risk is heightened during periods when economic conditions worsen.

As of December 31, 2017 and 2016, the Company's ten largest customers accounted for 70% and 74% of accounts receivable, respectively. The Company believes the concentration of credit risk is not material for the remaining accounts receivable.

Financial credit risk

The Company regularly monitors and reviews the concentration limit applied to counterparties and adjusts the concentration limit according to market conditions and the credit standing of the counterparties. The Company mitigates its exposure by limiting the exposure to any individual counterparty and by selecting counterparties with investment-grade credit ratings.

e. Liquidity risk management

The objective of liquidity risk management is to ensure the Company has sufficient liquidity to fund its business requirements associated with existing operations over the next 12 months. The Company manages its liquidity risk by maintaining adequate cash and cash equivalent, short-term available-for-sale financial assets and short-term held-to-maturity financial assets.

The table below summarizes the maturity profile of the Company's financial liabilities based on contractual undiscounted payments, including principal and interest.

	Less Than 1 Year	2-3 Years	4-5 Years	5+ Years	Total
<u>December 31, 2017</u>					
<u>Non-derivative financial liabilities</u>					
Short-term loans	\$ 63,801,977	\$ -	\$ -	\$ -	\$ 63,801,977
Accounts payable (including related parties)	30,069,163	-	-	-	30,069,163
Payables to contractors and equipment suppliers	55,723,774	-	-	-	55,723,774
Accrued expenses and other current liabilities	24,659,738	-	-	-	24,659,738
Bonds payable	60,176,818	68,378,787	7,777,715	18,203,601	154,536,921
Guarantee deposits (including those classified under accrued expenses and other current liabilities)	8,493,829	7,503,151	83,639	-	16,080,619
	<u>242,925,299</u>	<u>75,881,938</u>	<u>7,861,354</u>	<u>18,203,601</u>	<u>344,872,192</u>
<u>Derivative financial instruments</u>					
Forward exchange contracts					
Outflows	67,393,539	-	-	-	67,393,539
Inflows	(67,957,919)	-	-	-	(67,957,919)
	<u>(564,380)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(564,380)</u>
	<u>\$ 242,360,919</u>	<u>\$ 75,881,938</u>	<u>\$ 7,861,354</u>	<u>\$ 18,203,601</u>	<u>\$ 344,307,812</u>
<u>December 31, 2016</u>					
<u>Non-derivative financial liabilities</u>					
Short-term loans	\$ 57,974,562	\$ -	\$ -	\$ -	\$ 57,974,562
Accounts payable (including related parties)	27,324,525	-	-	-	27,324,525
Payables to contractors and equipment suppliers	63,154,514	-	-	-	63,154,514
Accrued expenses and other current liabilities	20,713,259	-	-	-	20,713,259
Bonds payable	40,669,468	99,161,486	35,340,742	22,979,426	198,151,122
Long-term bank loans	10,543	20,116	2,423	-	33,082
Guarantee deposits (including those classified under accrued expenses and other current liabilities)	12,000,189	13,060,483	1,609,950	-	26,670,622
	<u>221,847,060</u>	<u>112,242,085</u>	<u>36,953,115</u>	<u>22,979,426</u>	<u>394,021,686</u>
<u>Derivative financial instruments</u>					
Forward exchange contracts					
Outflows	40,571,841	-	-	-	40,571,841
Inflows	(40,586,344)	-	-	-	(40,586,344)
	<u>(14,503)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(14,503)</u>
Cross currency swap contracts					
Outflows	5,478,066	-	-	-	5,478,066
Inflows	(5,487,600)	-	-	-	(5,487,600)
	<u>(9,534)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(9,534)</u>
	<u>\$ 221,823,023</u>	<u>\$ 112,242,085</u>	<u>\$ 36,953,115</u>	<u>\$ 22,979,426</u>	<u>\$ 393,997,649</u>

f. Fair value of financial instruments

1) Fair value measurements recognized in the consolidated balance sheets

Fair value measurements are grouped into Levels 1 to 3 based on the degree to which the fair value is observable:

- Level 1 fair value measurements are those derived from quoted prices (unadjusted) in active markets for identical assets or liabilities;

- Level 2 fair value measurements are those derived from inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices); and
 - Level 3 fair value measurements are those derived from valuation techniques that include inputs for the asset or liability that are not based on observable market data (unobservable inputs).
- 2) Fair value of financial instruments that are measured at fair value on a recurring basis

Fair value hierarchy

The following table presents the Company's financial assets and liabilities measured at fair value on a recurring basis:

	December 31, 2017			
	Level 1	Level 2	Level 3	Total
<u>Financial assets at FVTPL</u>				
Held for trading				
Forward exchange contracts	\$ -	\$ 569,751	\$ -	\$ 569,751
<u>Available-for-sale financial assets</u>				
Corporate bonds	\$ -	\$ 40,165,148	\$ -	\$ 40,165,148
Agency bonds/Agency mortgage-backed securities	-	29,235,388	-	29,235,388
Asset-backed securities	-	13,459,545	-	13,459,545
Government bonds	7,715,980	101,743	-	7,817,723
Publicly traded stocks	2,548,054	-	-	2,548,054
Commercial paper	-	148,295	-	148,295
	<u>\$ 10,264,034</u>	<u>\$ 83,110,119</u>	<u>\$ -</u>	<u>\$ 93,374,153</u>
<u>Hedging derivative financial assets</u>				
Fair value hedges				
Interest rate futures contracts	\$ 27,016	\$ -	\$ -	\$ 27,016
Cash flow hedges				
Forward exchange contracts	-	7,378	-	7,378
	<u>\$ 27,016</u>	<u>\$ 7,378</u>	<u>\$ -</u>	<u>\$ 34,394</u>
<u>Financial liabilities at FVTPL</u>				
Held for trading				
Forward exchange contracts	\$ -	\$ 26,709	\$ -	\$ 26,709
<u>Hedging derivative financial liabilities</u>				
Cash flow hedges				
Forward exchange contracts	\$ -	\$ 15,562	\$ -	\$ 15,562

	December 31, 2016			
	Level 1	Level 2	Level 3	Total
<u>Financial assets at FVTPL</u>				
Held for trading				
Forward exchange contracts	\$ -	\$ 142,406	\$ -	\$ 142,406
Cross currency swap contracts	-	10,976	-	10,976
Designated as at FVTPL				
Time deposit	-	6,297,708	-	6,297,708
Forward exchange contracts	-	22	-	22
	<u>\$ -</u>	<u>\$ 6,451,112</u>	<u>\$ -</u>	<u>\$ 6,451,112</u>
<u>Available-for-sale financial assets</u>				
Corporate bonds	\$ -	\$ 29,999,508	\$ -	\$ 29,999,508
Agency bonds/Agency mortgage-backed securities	-	14,880,482	-	14,880,482
Asset-backed securities	-	11,254,757	-	11,254,757
Government bonds	8,346,989	110,373	-	8,457,362
Publicly traded stocks	<u>3,196,658</u>	<u>-</u>	<u>-</u>	<u>3,196,658</u>
	<u>\$ 11,543,647</u>	<u>\$ 56,245,120</u>	<u>\$ -</u>	<u>\$ 67,788,767</u>
<u>Hedging derivative financial assets</u>				
Fair value hedges				
Interest rate futures contracts	<u>\$ 5,550</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 5,550</u>
<u>Financial liabilities at FVTPL</u>				
Held for trading				
Forward exchange contracts	\$ -	\$ 91,585	\$ -	\$ 91,585
Designated as at FVTPL				
Forward exchange contracts	-	99,550	-	99,550
	<u>\$ -</u>	<u>\$ 191,135</u>	<u>\$ -</u>	<u>\$ 191,135</u>

In the fourth quarter of 2017, the Company reassessed the bid-ask spread and the transaction volume of the fixed income securities in determining whether there were quoted prices in active markets. Accordingly, the Company classified the fair value hierarchy levels of corporate bonds, agency bonds, agency mortgage-backed securities and some government bonds as level 2. To have consistent comparative basis, the Company had revised prior year classification from level 1 to level 2.

There were no purchases and disposals for assets classified as Level 3 for the years ended December 31, 2017 and 2016, respectively.

Valuation techniques and assumptions used in Level 2 fair value measurement

The fair values of financial assets and financial liabilities are determined as follows:

- The fair values of corporate bonds, agency bonds, agency mortgage-backed securities, asset-backed securities, and government bonds are determined by quoted market prices.
- Forward exchange contracts and cross currency swap contracts are measured using forward exchange rates and the discounted curves that are derived from quoted market prices. For investments in commercial paper and time deposit designated as FVTPL, the fair values are determined by the present value of future cash flows based on the discounted curves that are derived from the quoted market prices.

3) Fair value of financial instruments that are not measured at fair value

Except as detailed in the following table, the Company considers that the carrying amounts of financial instruments in the consolidated financial statements that are not measured at fair value approximate their fair values.

	December 31, 2017		December 31, 2016	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
<u>Financial assets</u>				
Held-to-maturity financial assets				
Corporate bonds	\$ 19,338,764	\$ 19,541,419	\$ 23,849,701	\$ 23,996,429
Structured product	1,482,950	1,475,350	1,609,950	1,609,738
Commercial paper	-	-	8,628,176	8,630,769
Negotiable certificate of deposit	-	-	4,829,850	4,847,785

Financial liabilities

Measured at amortized cost				
Bonds payable	150,201,122	152,077,728	191,193,557	192,845,296

Fair value hierarchy

The table below sets out the fair value hierarchy for the Company's assets and liabilities which are not required to measure at fair value:

	December 31, 2017			
	Level 1	Level 2	Level 3	Total
<u>Financial assets</u>				
Held-to-maturity securities				
Corporate bonds	\$ -	\$ 19,541,419	\$ -	\$ 19,541,419
Structured product	-	1,475,350	-	1,475,350
	<u>\$ -</u>	<u>\$ 21,016,769</u>	<u>\$ -</u>	<u>\$ 21,016,769</u>

Financial liabilities

Measured at amortized cost				
Bonds payable	<u>\$ -</u>	<u>\$ 152,077,728</u>	<u>\$ -</u>	<u>\$ 152,077,728</u>

	December 31, 2016			
	Level 1	Level 2	Level 3	Total
<u>Financial assets</u>				
Held-to-maturity securities				
Corporate bonds	\$ -	\$ 23,996,429	\$ -	\$ 23,996,429
Commercial paper	-	8,630,769	-	8,630,769
Negotiable certificate of deposit	-	4,847,785	-	4,847,785
Structured product	-	1,609,738	-	1,609,738
	<u>\$ -</u>	<u>\$ 39,084,721</u>	<u>\$ -</u>	<u>\$ 39,084,721</u>

Financial liabilities

Measured at amortized cost				
Bonds payable	<u>\$ -</u>	<u>\$ 192,845,296</u>	<u>\$ -</u>	<u>\$ 192,845,296</u>

In the fourth quarter of 2017, the Company reassessed the bid-ask spread and the transaction volume of the fixed income securities in determining whether there were quoted prices in active markets. Accordingly, the Company classified the fair value hierarchy levels of corporate bonds and bonds payable as level 2. To have consistent comparative basis, the Company had revised prior year classification from level 1 to level 2.

Valuation techniques and assumptions used in Level 2 fair value measurement

The fair values of corporate bonds, negotiable certificate of deposit, and structured products are determined by quoted market prices.

The fair value of commercial paper is determined by the present value of future cash flows based on the discounted curves that are derived from the quoted market prices.

The fair value of the Company's bonds payable is determined by quoted market prices.

34. RELATED PARTY TRANSACTIONS

Intercompany balances and transactions between TSMC and its subsidiaries, which are related parties of TSMC, have been eliminated upon consolidation; therefore those items are not disclosed in this note. The following is a summary of significant transactions between the Company and other related parties:

- a. Related party name and categories

<u>Related Party Name</u>	<u>Related Party Categories</u>
GUC	Associates
VIS	Associates
SSMC	Associates
Xintec	Associates
Mutual-Pak	Associates
TSMC Education and Culture Foundation	Other related parties
TSMC Charity Foundation	Other related parties

- b. Net revenue

		<u>Years Ended December 31</u>	
		<u>2017</u>	<u>2016</u>
<u>Item</u>	<u>Related Party Categories</u>		
Net revenue from sale of goods	Associates	\$ 8,495,937	\$ 5,929,141
	Other related parties	<u>133</u>	<u>-</u>
		<u>\$ 8,496,070</u>	<u>\$ 5,929,141</u>
Net revenue from royalties	Associates	<u>\$ 482,537</u>	<u>\$ 516,749</u>

c. Purchases

Years Ended December 31
2017 2016

Related Party Categories

Associates	<u>\$ 9,904,637</u>	<u>\$ 10,108,210</u>
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d. Receivables from related parties

December 31, **December 31,**
2017 **2016**

<u>Item</u>	<u>Related Party Name/Categories</u>		
Receivables from related parties	GUC	\$ 1,022,892	\$ 969,136
	Xintec	<u>161,232</u>	<u>423</u>
		<u>\$ 1,184,124</u>	<u>\$ 969,559</u>
Other receivables from related parties	SSMC	\$ 83,099	\$ 60,641
	VIS	78,141	86,038
	Other Associates	<u>9,818</u>	<u>109</u>
		<u>\$ 171,058</u>	<u>\$ 146,788</u>

e. Payables to related parties

December 31, **December 31,**
2017 **2016**

<u>Item</u>	<u>Related Party Name/Categories</u>		
Payables to related parties	Xintec	\$ 817,930	\$ 124,541
	VIS	409,950	587,407
	SSMC	406,959	506,121
	Other Associates	<u>21,517</u>	<u>44,105</u>
		<u>\$ 1,656,356</u>	<u>\$ 1,262,174</u>

f. Others

Years Ended December 31
2017 2016

<u>Item</u>	<u>Related Party Categories</u>		
Manufacturing expenses	Associates	<u>\$ 2,196,141</u>	<u>\$ 1,389,164</u>
Research and development expenses	Associates	<u>\$ 69,841</u>	<u>\$ 161,735</u>
General and administrative expenses	Other related parties	<u>\$ 101,500</u>	<u>\$ 60,000</u>

The sales prices and payment terms to related parties were not significantly different from those of sales to third parties. For other related party transactions, price and terms were determined in accordance with mutual agreements.

The Company leased factory and office from associates. The lease terms and prices were both determined in accordance with mutual agreements. The rental expenses were paid to associates monthly; the related expenses were both classified under manufacturing expenses.

The Company deferred the disposal gain/loss derived from sales of property, plant and equipment to related parties (transactions with associates), and then recognized such gain/loss over the depreciable lives of the disposed assets.

g. Compensation of key management personnel

The compensation to directors and other key management personnel for the years ended December 31, 2017 and 2016 were as follows:

	Years Ended December 31	
	2017	2016
Short-term employee benefits	\$ 2,170,280	\$ 2,023,971
Post-employment benefits	<u>3,727</u>	<u>3,992</u>
	<u>\$ 2,174,007</u>	<u>\$ 2,027,963</u>

The compensation to directors and other key management personnel were determined by the Compensation Committee of TSMC in accordance with the individual performance and the market trends.

35. PLEDGED ASSETS

The Company provided certificate of deposits recorded in other financial assets as collateral mainly for building lease agreements. As of December 31, 2017 and 2016, the aforementioned other financial assets amounted to NT\$165,618 thousand and NT\$185,698 thousand, respectively.

36. SIGNIFICANT OPERATING LEASE ARRANGEMENTS

The Company's major significant operating leases are arrangements on several parcels of land, machinery and equipment and office premises.

The Company expensed the lease payments as follows:

	Years Ended December 31	
	2017	2016
Minimum lease payments	<u>\$ 2,178,054</u>	<u>\$ 1,135,735</u>

Future minimum lease payments under the above non-cancellable operating leases are as follows:

	December 31, 2017	December 31, 2016
Not later than 1 year	\$ 3,116,209	\$ 1,321,546
Later than 1 year and not later than 5 years	5,174,729	3,677,432
Later than 5 years	<u>8,905,848</u>	<u>6,623,957</u>
	<u>\$ 17,196,786</u>	<u>\$ 11,622,935</u>

37. SIGNIFICANT CONTINGENT LIABILITIES AND UNRECOGNIZED COMMITMENTS

Significant contingent liabilities and unrecognized commitments of the Company as of the end of the reporting period, excluding those disclosed in other notes, were as follows:

- a. Under a technical cooperation agreement with Industrial Technology Research Institute, the R.O.C. Government or its designee approved by TSMC can use up to 35% of TSMC's capacity provided TSMC's outstanding commitments to its customers are not prejudiced. The term of this agreement is for five years beginning from January 1, 1987 and is automatically renewed for successive periods of five years unless otherwise terminated by either party with one year prior notice. As of December 31, 2017, the R.O.C. Government did not invoke such right.
- b. Under a Shareholders Agreement entered into with Philips and EDB Investments Pte Ltd. on March 30, 1999, the parties formed a joint venture company, SSMC, which is an integrated circuit foundry in Singapore. TSMC's equity interest in SSMC was 32%. Nevertheless, in September 2006, Philips spun-off its semiconductor subsidiary which was renamed as NXP B.V. Further, TSMC and NXP B.V. purchased all the SSMC shares owned by EDB Investments Pte Ltd. pro rata according to the Shareholders Agreement on November 15, 2006. After the purchase, TSMC and NXP B.V. currently own approximately 39% and 61% of the SSMC shares, respectively. TSMC and NXP B.V. are required, in the aggregate, to purchase at least 70% of SSMC's capacity, but TSMC alone is not required to purchase more than 28% of the capacity. If any party defaults on the commitment and the capacity utilization of SSMC falls below a specific percentage of its capacity, the defaulting party is required to compensate SSMC for all related unavoidable costs. There was no default from the aforementioned commitment as of December 31, 2017.
- c. TSMC joined the Customer Co-Investment Program of ASML and entered into the investment agreement in August 2012. The agreement includes an investment of EUR837,816 thousand by TSMC Global to acquire 5% of ASML's equity with a lock-up period of 2.5 years. TSMC Global has acquired the aforementioned equity on October 31, 2012. The lock-up period expired on May 1, 2015 and as of October 8, 2015, all ASML shares had been disposed.

Both parties also signed the research and development funding agreement whereby TSMC shall provide EUR276,000 thousand to ASML's research and development programs from 2013 to 2017. As of September 30, 2017, the amount has been fully paid.

- d. In May 2017, Mr. Uri Cohen filed a complaint in the U.S. District Court for the Eastern District of Texas alleging that TSMC, TSMC North America and other companies infringe four U.S. patents. In response, TSMC and TSMC North America filed a declaratory judgment complaint against Cohen in the U.S. District Court for the Northern District of California seeking a judgment declaring that there is no infringement of the same four patents. TSMC also filed a motion to transfer Cohen's lawsuit in the U.S. District Court for the Eastern District of Texas to the U.S. District Court for the Northern District of California. Cohen agreed to the transfer, and as of December 2017, the cases are consolidated and pending in the U.S. District Court for the Northern District of California. The outcome cannot be determined and the Company cannot make a reliable estimate of the contingent liability at this time.

- e. On September 28, 2017, TSMC was contacted by the European Commission (“Commission”) for information and documents concerning alleged anti-competitive practices of TSMC in relation to semiconductor sales. This proceeding is still in its preliminary stage, and it is premature to predict how the case will proceed, the outcome of the proceeding or its impact. TSMC will continue to cooperate fully with the Commission.
- f. TSMC entered into long-term purchase agreements of silicon wafer with multiple suppliers. The relative minimum purchase quantity and price are specified in the agreements.
- g. Amounts available under unused letters of credit as of December 31, 2017 and 2016 were NT\$94,909 thousand and NT\$122,356 thousand, respectively.

38. SIGNIFICANT LOSS FROM DISASTER

On February 6, 2016, an earthquake struck Taiwan. The resulting damage was mostly to inventories and equipment. The Company recognized earthquake losses of NT\$2,492,138 thousand, net of insurance claim, for the year ended December 31, 2016. Such losses were primarily included in cost of revenue. The related insurance claim was finalized in the first quarter of 2017, and the accumulated earthquake losses were NT\$2,386,824 thousand, net of insurance claim. The Company recognized a reduction of such losses of NT\$105,314 thousand for the three months ended March 31, 2017.

39. EXCHANGE RATE INFORMATION OF FOREIGN-CURRENCY FINANCIAL ASSETS AND LIABILITIES

The following information was summarized according to the foreign currencies other than the functional currency of the Company. The exchange rates disclosed were used to translate the foreign currencies into the functional currency. The significant financial assets and liabilities denominated in foreign currencies were as follows:

	Foreign Currencies (In Thousands)	Exchange Rate (Note 1)	Carrying Amount (In Thousands)
<u>December 31, 2017</u>			
<u>Financial assets</u>			
Monetary items			
USD	\$ 5,668,611	29.659	\$ 168,125,342
USD	580,555	6.512 (Note 2)	17,218,674
EUR	236,474	35.45	8,383,015
JPY	34,335,661	0.2629	9,026,845
Non-monetary items			
HKD	285,336	3.80	1,084,276
<u>Financial liabilities</u>			
Monetary items			
USD	4,048,384	29.659	120,071,030
EUR	415,819	35.45	14,740,766
JPY	43,205,838	0.2629	11,358,815

(Continued)

	Foreign Currencies (In Thousands)	Exchange Rate (Note 1)	Carrying Amount (In Thousands)
<u>December 31, 2016</u>			
<u>Financial assets</u>			
Monetary items			
USD	\$ 5,042,715	32.199	\$ 162,370,381
EUR	19,556	34.30	670,767
JPY	37,024,347	0.2775	10,274,256
Non-monetary items			
HKD	257,056	4.15	1,066,780

Financial liabilities

Monetary items			
USD	4,000,930	32.199	128,825,952
EUR	183,922	34.30	6,308,513
JPY	61,062,114	0.2775	16,944,737 (Concluded)

Note 1: Except as otherwise noted, exchange rate represents the number of N.T. dollars for which one foreign currency could be exchanged.

Note 2: The exchange rate represents the number of RMB for which one USD dollars could be exchanged.

Please refer to the consolidated statements of comprehensive income for the total of realized and unrealized foreign exchange gain and loss for the years ended December 31, 2017 and 2016, respectively. Since there were varieties of foreign currency transactions and functional currencies within the subsidiaries of the Company, the Company was unable to disclose foreign exchange gain (loss) towards each foreign currency with significant impact.

40. OPERATING SEGMENTS INFORMATION

a. Operating segments, segment revenue and operating results

From 2016, the Company has only one operating segment, the foundry segment. The foundry segment engages mainly in the manufacturing, selling, packaging, testing and computer-aided design of integrated circuits and other semiconductor devices and the manufacturing of masks.

The Company uses the income from operations as the measurement for the basis of performance assessment. The basis for such measurement is the same as that for the preparation of financial statements. Please refer to the consolidated statements of comprehensive income for the related segment revenue and operating results.

b. Geographic information

	Net Revenue from External Customers		Non-current Assets	
	Years Ended December 31		December 31,	December 31,
	2017	2016	2017	2016
Taiwan	\$ 90,129,390	\$ 127,062,984	\$ 1,027,963,202	\$ 991,567,870
United States	620,948,718	610,371,107	7,515,835	8,245,054
Asia	194,477,093	146,907,470	44,213,422	14,071,364
Europe, the Middle East and Africa	68,538,366	58,042,311	8,123	8,677
Others	<u>3,353,674</u>	<u>5,554,472</u>	<u>-</u>	<u>-</u>
	<u>\$ 977,447,241</u>	<u>\$ 947,938,344</u>	<u>\$ 1,079,700,582</u>	<u>\$ 1,013,892,965</u>

The Company categorized the net revenue mainly based on the country in which the customer is headquartered. Non-current assets include property, plant and equipment, intangible assets and other noncurrent assets.

c. Production information

Production	Years Ended December 31	
	2017	2016
Wafer	\$ 874,572,620	\$ 861,170,855
Others	<u>102,874,621</u>	<u>86,767,489</u>
	<u>\$ 977,447,241</u>	<u>\$ 947,938,344</u>

Starting in 2017, revenue from packaging and testing services is reclassified from wafer revenue to other revenue. To have consistent comparative basis, the Company had revised prior year classification.

d. Major customers representing at least 10% of net revenue

	Years Ended December 31			
	2017		2016	
	Amount	%	Amount	%
Customer A	\$ 214,228,766	22	\$ 157,185,418	17
Customer B	64,096,227	7	107,463,238	11

41. ADDITIONAL DISCLOSURES

Following are the additional disclosures required by the Securities and Futures Bureau for TSMC:

- Financings provided: Please see Table 1 attached;
- Endorsement/guarantee provided: Please see Table 2 attached;
- Marketable securities held (excluding investments in subsidiaries and associates): Please see Table 3 attached;
- Marketable securities acquired and disposed of at costs or prices of at least NT\$300 million or 20% of the paid-in capital: Please see Table 4 attached;

- e. Acquisition of individual real estate properties at costs of at least NT\$300 million or 20% of the paid-in capital: Please see Table 5 attached;
- f. Disposal of individual real estate properties at prices of at least NT\$300 million or 20% of the paid-in capital: None;
- g. Total purchases from or sales to related parties of at least NT\$100 million or 20% of the paid-in capital: Please see Table 6 attached;
- h. Receivables from related parties amounting to at least NT\$100 million or 20% of the paid-in capital: Please see Table 7 attached;
- i. Information about the derivative financial instruments transaction: Please see Notes 7 and 10;
- j. Others: The business relationship between the parent and the subsidiaries and significant transactions between them: Please see Table 8 attached;
- k. Names, locations, and related information of investees over which TSMC exercises significant influence (excluding information on investment in mainland China): Please see Table 9 attached;
- l. Information on investment in mainland China
 - 1) The name of the investee in mainland China, the main businesses and products, its issued capital, method of investment, information on inflow or outflow of capital, percentage of ownership, income (losses) of the investee, share of profits/losses of investee, ending balance, amount received as dividends from the investee, and the limitation on investee: Please see Table 10 attached.
 - 2) Significant direct or indirect transactions with the investee, its prices and terms of payment, unrealized gain or loss, and other related information which is helpful to understand the impact of investment in mainland China on financial reports: Please see Table 8 attached.

Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries

FINANCINGS PROVIDED
FOR THE YEAR ENDED DECEMBER 31, 2017
(Amounts in Thousands of New Taiwan Dollars, Unless Specified Otherwise)

No.	Financing Company	Counter-party	Financial Statement Account	Related Party	Maximum Balance for the Period (Foreign Currencies in Thousands) (Note 3)	Ending Balance (Foreign Currencies in Thousands) (Note 3)	Amount Actually Drawn (Foreign Currencies in Thousands)	Interest Rate	Nature for Financing (Note 4)	Transaction Amounts	Reason for Financing (Note 4)	Allowance for Bad Debt	Collateral		Financing Limits for Each Borrowing Company (Notes 1 and 2)	Financing Company's Total Financing Amount Limits (Notes 1 and 2)
													Item	Value		
1	TSMC China	TSMC Nanjing	Other receivables from related parties	Yes	\$ 20,950,700 (RMB 4,600,000)	\$ 20,950,700 (RMB 4,600,000)	\$ 20,039,800 (RMB 4,400,000)	1.3%-1.5%	The need for short-term/long-term financing	\$ -	Operating capital	\$ -	\$ 51,161,815	\$ 51,161,815	\$ 51,161,815	
2	TSMC Global	TSMC	Other receivables from related parties	Yes	44,488,500 (US\$ 1,500,000)	44,488,500 (US\$ 1,500,000)	-	1.08%-1.45%	The need for short-term financing	-	Operating capital	-	309,211,877	309,211,877	309,211,877	

Note 1: The total amount available for lending purpose shall not exceed the net worth of TSMC China. The total amount for lending to a company for funding for a short-term period shall not exceed ten percent (10%) of the net worth of TSMC China. In addition, the total amount lendable to any one borrower shall be no more than thirty percent (30%) of the borrower's net worth. The above restriction does not apply to the subsidiaries whose voting shares are 100% owned, directly or indirectly, by TSMC. However, the total amount lendable to any such subsidiary of TSMC shall not exceed forty percent (40%) of the net worth of TSMC China. When there is a lending for funding needs by TSMC China to TSMC, or to the subsidiaries whose voting shares are 100% owned, directly or indirectly, by TSMC, which are not located in Taiwan, the lending will not be subject to the restriction set forth in the above paragraph of this Article. Notwithstanding the foregoing, the aggregate amount available for lending to such borrowers and the total amount lendable to each of such borrowers still shall not exceed the net worth of TSMC China.

Note 2: The total amount available for lending purpose shall not exceed the net worth of TSMC Global. The total amount for lending to a company for funding for a short-term period shall not exceed ten percent (10%) of the net worth of TSMC Global. In addition, the total amount lendable to any one borrower shall be no more than thirty percent (30%) of the borrower's net worth. While TSMC, or foreign subsidiaries whose voting shares are 100% owned, directly or indirectly, by TSMC will not be subject to this restriction, their total borrowing amount still shall not exceed the net worth of TSMC Global. Notwithstanding the foregoing, the aggregate amount for lending to Taiwan companies other than TSMC shall not exceed forty percent (40%) of the net worth of TSMC Global.

Note 3: The maximum balance for the period and ending balance represent the amounts approved by the Board of Directors.

Note 4: The restriction of the term of each loan for funding not exceeding one year shall not apply to inter-company loans for funding between offshore subsidiaries in which the Company holds, directly or indirectly, 100% of the voting shares.

Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries

ENDORSEMENTS/GUARANTEES PROVIDED
FOR THE YEAR ENDED DECEMBER 31, 2017

(Amounts in Thousands of New Taiwan Dollars, Unless Specified Otherwise)

No.	Endorser/ Guarantee Provider	Guaranteed Party		Limits on Endorsement/ Guarantee Amount Provided to Each Party (Notes 1 and 2)	Maximum Balance for the Period (US\$ in Thousands) (Note 3)	Ending Balance (US\$ in Thousands) (Note 3)	Amount Actually Drawn (US\$ in Thousands)	Amount of Endorsement/ Guarantee Collateralized by Properties	Ratio of Accumulated Endorsement/ Guarantee to Net Equity per Latest Financial Statements	Maximum Endorsement/ Guarantee Amount Allowable (Note 2)	Guarantee Provided by Parent Company	Guarantee Provided by A Subsidiary	Guarantee Provided to Subsidiaries in Mainland China
		Name	Nature of Relationship										
0	TSMC	TSMC Global	Subsidiary	\$ 380,514,383	\$ 34,107,850 (US\$ 1,150,000)	\$ 34,107,850 (US\$ 1,150,000)	\$ 34,107,850 (US\$ 1,150,000)	\$ -	2.24%	\$ 380,514,383	Yes	No	No
		TSMC North America	Subsidiary	380,514,383	2,468,023 (US\$ 83,213)	2,468,023 (US\$ 83,213)	2,468,023 (US\$ 83,213)	-	0.16%	380,514,383	Yes	No	No

Note 1: The total amount of the guarantee provided by TSMC to any individual entity shall not exceed ten percent (10%) of TSMC's net worth, or the net worth of such entity. However, subsidiaries whose voting shares are 100% owned, directly or indirectly, by TSMC are not subject to the above restrictions after the approval of the Board of Directors.

Note 2: The total amount of guarantee shall not exceed twenty-five percent (25%) of TSMC's net worth.

Note 3: The maximum balance for the period and ending balance represent the amounts approved by the Board of Directors.

Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries

MARKETABLE SECURITIES HELD
DECEMBER 31, 2017

(Amounts in Thousands of New Taiwan Dollars, Unless Specified Otherwise)

Held Company Name	Marketable Securities Type and Name	Relationship with the Company	Financial Statement Account	December 31, 2017			Note
				Shares/Units (In Thousands)	Carrying Value (Foreign Currencies in Thousands)	Percentage of Ownership (%)	
TSMC	Common stock	-	Available-for-sale financial assets	58,320	\$ 1,309,279	12	\$ 1,309,279
	Motech	-	"	21,105	1,084,276	-	1,084,276
	Semiconductor Manufacturing International Corporation	-	Financial assets carried at cost	21,230	193,584	10	193,584
	United Industrial Gases Co., Ltd.	-	"	10,500	105,000	7	105,000
	Shin-Etsu Handotai Taiwan Co., Ltd.	-	"	11,124	99,041	6	99,041
	Global Investment Holding Inc.	-	"	1,152	4,041	2	4,041
	W.K. Technology Fund IV	-	"	-	-	-	-
	Fund	-	Financial assets carried at cost	-	6,975	12	6,975
	Horizon Ventures Fund	-	"	-	6,410	1	6,410
	Crimson Asia Capital	-	"	-	-	-	-
TSMC Partners	Common stock	-	Financial assets carried at cost	10,440	US\$ 65,000	25	US\$ 65,000
	Telia Innovations	-	"	6,333	-	12	-
	Mcube Inc.	-	"	-	-	-	-
TSMC Global	Fund	-	Financial assets carried at cost	-	US\$ 8,607	9	US\$ 8,607
	China Walden Venture Investments II, L.P.	-	"	-	US\$ 4,270	6	US\$ 4,270
TSMC Global	Shanghai Walden Venture Capital Enterprise	-	"	-	-	-	-
	Corporate bond	-	Available-for-sale financial assets	-	US\$ 43,115	N/A	US\$ 43,115
	Morgan Stanley	-	"	-	US\$ 42,703	N/A	US\$ 42,703
	Bank of America Corp	-	"	-	US\$ 40,101	N/A	US\$ 40,101
	JPMorgan Chase & Co	-	"	-	US\$ 38,465	N/A	US\$ 38,465
	Goldman Sachs Group Inc/The	-	"	-	US\$ 29,911	N/A	US\$ 29,911
	Citigroup Inc	-	"	-	US\$ 26,867	N/A	US\$ 26,867
	AT&T Inc	-	"	-	US\$ 18,533	N/A	US\$ 18,533
	Ford Motor Credit Co LLC	-	"	-	US\$ 18,298	N/A	US\$ 18,298
	Verizon Communications Inc	-	"	-	US\$ 17,024	N/A	US\$ 17,024
	BAT Capital Corp	-	"	-	US\$ 16,463	N/A	US\$ 16,463
	Apple Inc	-	"	-	US\$ 14,412	N/A	US\$ 14,412
	PNC Bank NA	-	"	-	US\$ 13,623	N/A	US\$ 13,623
	Credit Suisse AG/New York NY	-	"	-	US\$ 13,406	N/A	US\$ 13,406
	Anheuser-Busch InBev Finance Inc	-	"	-	US\$ 12,214	N/A	US\$ 12,214
	Tyson Foods Inc	-	"	-	US\$ 12,015	N/A	US\$ 12,015
	Southern Co/The	-	"	-	US\$ 11,097	N/A	US\$ 11,097
	AbbVie Inc	-	"	-	US\$ 11,073	N/A	US\$ 11,073
	Asian Development Bank	-	"	-	US\$ 10,791	N/A	US\$ 10,791
	Mitsubishi UFJ Financial Group Inc	-	"	-	US\$ 10,465	N/A	US\$ 10,465
	Capital One NA/McLean VA	-	"	-	US\$ 10,464	N/A	US\$ 10,464
	Westpac Banking Corp	-	"	-	US\$ 10,383	N/A	US\$ 10,383
	Cardinal Health Inc	-	"	-	US\$ 10,264	N/A	US\$ 10,264
	BP Capital Markets PLC	-	"	-	US\$ 10,018	N/A	US\$ 10,018
	CVS Health Corp	-	"	-	US\$ 9,868	N/A	US\$ 9,868
	Wells Fargo & Co	-	"	-	US\$ 9,862	N/A	US\$ 9,862
	Svenska Handelsbanken AB	-	"	-	US\$ 9,620	N/A	US\$ 9,620
	Aviation Capital Group Corp	-	"	-	US\$ 9,410	N/A	US\$ 9,410
	American International Group Inc	-	"	-	US\$ 9,396	N/A	US\$ 9,396
	Sumitomo Mitsui Financial Group Inc	-	"	-	US\$ 9,301	N/A	US\$ 9,301
Microsoft Corp	-	"	-	-	-	-	-

(Continued)

Held Company Name	Marketable Securities Type and Name	Relationship with the Company	Financial Statement Account	December 31, 2017			Note
				Shares/Units (In Thousands)	Carrying Value (Foreign Currencies in Thousands)	Percentage of Ownership (%)	
TSMC Global	HSBC Holdings PLC	-	Available-for-sale financial assets	-	US\$ 9,099	N/A	US\$ 9,099
	ERAC USA Finance LLC	-	"	-	US\$ 8,759	N/A	US\$ 8,759
	Dominion Energy Inc	-	"	-	US\$ 8,626	N/A	US\$ 8,626
	Hewlett Packard Enterprise Co	-	"	-	US\$ 8,604	N/A	US\$ 8,604
	Ventas Realty LP/Ventas Capital Corp	-	"	-	US\$ 8,506	N/A	US\$ 8,506
	Duke Energy Corp	-	"	-	US\$ 8,337	N/A	US\$ 8,337
	Daimler Finance North America LLC	-	"	-	US\$ 8,041	N/A	US\$ 8,041
	International Bank for Reconstruction & Development	-	"	-	US\$ 7,992	N/A	US\$ 7,992
	Huntington National Bank/The	-	"	-	US\$ 7,873	N/A	US\$ 7,873
	Oracle Corp	-	"	-	US\$ 7,794	N/A	US\$ 7,794
	UBS Group Funding Switzerland AG	-	"	-	US\$ 7,505	N/A	US\$ 7,505
	ANZ New Zealand Int'l Ltd/London	-	"	-	US\$ 7,353	N/A	US\$ 7,353
	Toronto-Dominion Bank/The	-	"	-	US\$ 7,327	N/A	US\$ 7,327
	Deutsche Telekom International Finance BV	-	"	-	US\$ 7,252	N/A	US\$ 7,252
	ABN AMRO Bank NV	-	"	-	US\$ 7,100	N/A	US\$ 7,100
	Stiemens Financieringsmaatschappij NV	-	"	-	US\$ 7,073	N/A	US\$ 7,073
	Banque Federative dt Credit Mutuel SA	-	"	-	US\$ 7,072	N/A	US\$ 7,072
	Reckitt Benckiser Treasury Services PLC	-	"	-	US\$ 7,010	N/A	US\$ 7,010
	Barclays PLC	-	"	-	US\$ 6,994	N/A	US\$ 6,994
	Hyundai Capital America	-	"	-	US\$ 6,971	N/A	US\$ 6,971
	Air Lease Corp	-	"	-	US\$ 6,971	N/A	US\$ 6,971
	Marriott International Inc/MD	-	"	-	US\$ 6,900	N/A	US\$ 6,900
	21st Century Fox America Inc	-	"	-	US\$ 6,882	N/A	US\$ 6,882
	QUALCOMM Inc	-	"	-	US\$ 6,866	N/A	US\$ 6,866
	Citizens Bank NA/Providence RI	-	"	-	US\$ 6,726	N/A	US\$ 6,726
	Fifth Third Bancorp	-	"	-	US\$ 6,543	N/A	US\$ 6,543
	Skandinaviska Enskilda Banken AB	-	"	-	US\$ 6,531	N/A	US\$ 6,531
	Mizaho Financial Group Inc	-	"	-	US\$ 6,484	N/A	US\$ 6,484
	Reliance Standard Life Global Funding II	-	"	-	US\$ 6,483	N/A	US\$ 6,483
	Banco Santander SA	-	"	-	US\$ 6,347	N/A	US\$ 6,347
	Dow Chemical Co/The	-	"	-	US\$ 6,336	N/A	US\$ 6,336
	Bank of New York Mellon Corp/The	-	"	-	US\$ 6,306	N/A	US\$ 6,306
	Welltower Inc	-	"	-	US\$ 6,301	N/A	US\$ 6,301
	Santander UK Group Holdings PLC	-	"	-	US\$ 6,219	N/A	US\$ 6,219
	Celgene Corp	-	"	-	US\$ 6,181	N/A	US\$ 6,181
	Northrop Grumman Corp	-	"	-	US\$ 6,180	N/A	US\$ 6,180
	SMBC Aviation Capital Finance DAC	-	"	-	US\$ 5,938	N/A	US\$ 5,938
	Manufacturers & Traders Trust Co	-	"	-	US\$ 5,925	N/A	US\$ 5,925
	KeyCorp	-	"	-	US\$ 5,901	N/A	US\$ 5,901
	UBS AG/London	-	"	-	US\$ 5,858	N/A	US\$ 5,858
	NextEra Energy Capital Holdings Inc	-	"	-	US\$ 5,847	N/A	US\$ 5,847
	Schlumberger Holdings Corp	-	"	-	US\$ 5,769	N/A	US\$ 5,769
	Danone SA	-	"	-	US\$ 5,768	N/A	US\$ 5,768
	Aspen Insurance Holdings Ltd	-	"	-	US\$ 5,723	N/A	US\$ 5,723
	Santander UK PLC	-	"	-	US\$ 5,675	N/A	US\$ 5,675
	Toyota Motor Credit Corp	-	"	-	US\$ 5,643	N/A	US\$ 5,643
	Penske Truck Leasing Co Lp/PTL Finance Corp	-	"	-	US\$ 5,605	N/A	US\$ 5,605
	Nordea Bank AB	-	"	-	US\$ 5,571	N/A	US\$ 5,571
	ITC Holdings Corp	-	"	-	US\$ 5,536	N/A	US\$ 5,536
	McComick & Co Inc/MD	-	"	-	US\$ 5,297	N/A	US\$ 5,297
	Montpelier Re Holdings Ltd	-	"	-	US\$ 5,259	N/A	US\$ 5,259
	Angen Inc	-	"	-	US\$ 5,243	N/A	US\$ 5,243
	Jackson National Life Global Funding	-	"	-	US\$ 5,145	N/A	US\$ 5,145
	Branch Banking & Trust Co	-	"	-	US\$ 5,089	N/A	US\$ 5,089
	Cigna Corp	-	"	-	US\$ 5,065	N/A	US\$ 5,065
	Rockwell Collins Inc	-	"	-	US\$ 5,043	N/A	US\$ 5,043
	KeyBank NA/Cleveland OH	-	"	-	US\$ 5,032	N/A	US\$ 5,032
	UBS AG/Stamford CT	-	"	-	US\$ 5,005	N/A	US\$ 5,005
	International Finance Corp	-	"	-	US\$ 5,000	N/A	US\$ 5,000

(Continued)

Held Company Name	Marketable Securities Type and Name	Relationship with the Company	Financial Statement Account	December 31, 2017			Note
				Shares/Units (In Thousands)	Carrying Value (Foreign Currencies in Thousands)	Percentage of Ownership (%)	
TSMC Global	Realty Income Corp	-	Available-for-sale financial assets	-	US\$ 2,556	N/A	US\$ 2,556
	Metropolitan Life Global Funding I	-	"	-	US\$ 2,519	N/A	US\$ 2,519
	Capital One Financial Corp	-	"	-	US\$ 2,501	N/A	US\$ 2,501
	Credit Suisse Group Funding Guernsey Ltd	-	"	-	US\$ 2,490	N/A	US\$ 2,490
	Wm Wrigley Jr Co	-	"	-	US\$ 2,489	N/A	US\$ 2,489
	UnitedHealth Group Inc	-	"	-	US\$ 2,485	N/A	US\$ 2,485
	Eastman Chemical Co	-	"	-	US\$ 2,439	N/A	US\$ 2,439
	Xylem Inc/NY	-	"	-	US\$ 2,426	N/A	US\$ 2,426
	EI du Pont de Nemours & Co	-	"	-	US\$ 2,337	N/A	US\$ 2,337
	NBCUniversal Media LLC	-	"	-	US\$ 2,331	N/A	US\$ 2,331
	National Australia Bank Ltd/New York	-	"	-	US\$ 2,317	N/A	US\$ 2,317
	Bank of Tokyo-Mitsubishi UFJ Ltd/The	-	"	-	US\$ 2,301	N/A	US\$ 2,301
	Simon Property Group LP	-	"	-	US\$ 2,300	N/A	US\$ 2,300
	Voya Financial Inc	-	"	-	US\$ 2,289	N/A	US\$ 2,289
	Kimco Realty Corp	-	"	-	US\$ 2,280	N/A	US\$ 2,280
	ING Groep NV	-	"	-	US\$ 2,241	N/A	US\$ 2,241
	Inter American Development Bank	-	"	-	US\$ 2,227	N/A	US\$ 2,227
	Cintas Corp No.2	-	"	-	US\$ 2,218	N/A	US\$ 2,218
	Pricoa Global Funding I	-	"	-	US\$ 2,206	N/A	US\$ 2,206
	Pro-Assurance Corp	-	"	-	US\$ 2,150	N/A	US\$ 2,150
	WR Berkley Corp	-	"	-	US\$ 2,136	N/A	US\$ 2,136
	Bank of Montreal	-	"	-	US\$ 2,130	N/A	US\$ 2,130
	HCP Inc	-	"	-	US\$ 2,113	N/A	US\$ 2,113
	Sysco Corp	-	"	-	US\$ 2,005	N/A	US\$ 2,005
	British Telecommunications PLC	-	"	-	US\$ 2,002	N/A	US\$ 2,002
	Johnson Controls International plc	-	"	-	US\$ 2,001	N/A	US\$ 2,001
	Danske Bank A/S	-	"	-	US\$ 1,962	N/A	US\$ 1,962
	American Airlines 2013-2 Class A Pass Through Trust	-	"	-	US\$ 1,960	N/A	US\$ 1,960
	Duke Realty LP	-	"	-	US\$ 1,954	N/A	US\$ 1,954
	Stryker Corp	-	"	-	US\$ 1,947	N/A	US\$ 1,947
	BPCE SA	-	"	-	US\$ 1,924	N/A	US\$ 1,924
	Magellan Midstream Partners LP	-	"	-	US\$ 1,920	N/A	US\$ 1,920
	Societe Generale SA	-	"	-	US\$ 1,913	N/A	US\$ 1,913
	Bear Stearns Cos LLC/The	-	"	-	US\$ 1,908	N/A	US\$ 1,908
	SunTrust Bank/Atlanta GA	-	"	-	US\$ 1,836	N/A	US\$ 1,836
	WestRock RKT Co	-	"	-	US\$ 1,832	N/A	US\$ 1,832
	Orange SA	-	"	-	US\$ 1,831	N/A	US\$ 1,831
	Philip Morris International Inc	-	"	-	US\$ 1,809	N/A	US\$ 1,809
	Australia & New Zealand Banking Group Ltd/New York NY	-	"	-	US\$ 1,794	N/A	US\$ 1,794
	Brambles USA Inc	-	"	-	US\$ 1,791	N/A	US\$ 1,791
	State Grid Overseas Investment Ltd	-	"	-	US\$ 1,775	N/A	US\$ 1,775
	Visa Inc	-	"	-	US\$ 1,773	N/A	US\$ 1,773
	Dominion Energy Gas Holdings LLC	-	"	-	US\$ 1,762	N/A	US\$ 1,762
	United Technologies Corp	-	"	-	US\$ 1,761	N/A	US\$ 1,761
	Regency Centers LP	-	"	-	US\$ 1,758	N/A	US\$ 1,758
	Commonwealth Bank of Australia/New York NY	-	"	-	US\$ 1,751	N/A	US\$ 1,751
	Alterra Finance LLC	-	"	-	US\$ 1,741	N/A	US\$ 1,741
	Regions Financial Corp	-	"	-	US\$ 1,708	N/A	US\$ 1,708
	Sumitomo Mitsui Trust Bank Ltd	-	"	-	US\$ 1,691	N/A	US\$ 1,691
	Sumitomo Mitsui Banking Corp	-	"	-	US\$ 1,629	N/A	US\$ 1,629
	Amazon.com Inc	-	"	-	US\$ 1,626	N/A	US\$ 1,626
	Gilead Sciences Inc	-	"	-	US\$ 1,608	N/A	US\$ 1,608
	Weyerhaeuser Co	-	"	-	US\$ 1,602	N/A	US\$ 1,602
	BAT International Finance PLC	-	"	-	US\$ 1,594	N/A	US\$ 1,594
	Principal Life Global Funding II	-	"	-	US\$ 1,588	N/A	US\$ 1,588
	Caterpillar Financial Services Corp	-	"	-	US\$ 1,536	N/A	US\$ 1,536
	Chevron Corp	-	"	-	US\$ 1,532	N/A	US\$ 1,532
	O'Reilly Automotive Inc	-	"	-	US\$ 1,527	N/A	US\$ 1,527
	PSEG Power LLC	-	"	-	US\$ 1,510	N/A	US\$ 1,510

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Held Company Name	Marketable Securities Type and Name	Relationship with the Company	Financial Statement Account	December 31, 2017				Note
				Shares/Units (In Thousands)	Carrying Value (Foreign Currencies in Thousands)	Percentage of Ownership (%)	Fair Value (Foreign Currencies in Thousands)	
TSMC Global	McKesson Corp	-	Available-for-sale financial assets	-	US\$ 1,500	N/A	US\$ 1,500	
	Hartley-Davidson Financial Services Inc	-	"	-	US\$ 1,498	N/A	US\$ 1,498	
	Standard Chartered PLC	-	"	-	US\$ 1,497	N/A	US\$ 1,497	
	CBS Corp	-	"	-	US\$ 1,495	N/A	US\$ 1,495	
	HSBC USA Inc	-	"	-	US\$ 1,470	N/A	US\$ 1,470	
	Guardian Life Global Funding	-	"	-	US\$ 1,469	N/A	US\$ 1,469	
	HSBC Bank PLC	-	"	-	US\$ 1,459	N/A	US\$ 1,459	
	Cooperative Rabobank U/ANY	-	"	-	US\$ 1,450	N/A	US\$ 1,450	
	Oesterreichische Kontrollbank AG	-	"	-	US\$ 1,444	N/A	US\$ 1,444	
	Monongahela Power Co	-	"	-	US\$ 1,429	N/A	US\$ 1,429	
	Texas Eastern Transmission LP	-	"	-	US\$ 1,408	N/A	US\$ 1,408	
	Georgia-Pacific LLC	-	"	-	US\$ 1,401	N/A	US\$ 1,401	
	AIG Global Funding	-	"	-	US\$ 1,387	N/A	US\$ 1,387	
	Choe Global Markets Inc	-	"	-	US\$ 1,366	N/A	US\$ 1,366	
	Energy Arkansas Inc	-	"	-	US\$ 1,284	N/A	US\$ 1,284	
	GATX Corp	-	"	-	US\$ 1,277	N/A	US\$ 1,277	
	Energy Corp	-	"	-	US\$ 1,273	N/A	US\$ 1,273	
	Western Union Co/The	-	"	-	US\$ 1,266	N/A	US\$ 1,266	
	Nissan Motor Acceptance Corp	-	"	-	US\$ 1,261	N/A	US\$ 1,261	
	Comcast Corp	-	"	-	US\$ 1,256	N/A	US\$ 1,256	
	Consolidated Edison Inc	-	"	-	US\$ 1,213	N/A	US\$ 1,213	
	Glencore Funding LLC	-	"	-	US\$ 1,206	N/A	US\$ 1,206	
	Semptra Energy	-	"	-	US\$ 1,179	N/A	US\$ 1,179	
	Public Service Enterprise Group Inc	-	"	-	US\$ 1,136	N/A	US\$ 1,136	
	Kreditanstalt fuer Wiederaufbau	-	"	-	US\$ 1,134	N/A	US\$ 1,134	
	ERP Operating LP	-	"	-	US\$ 1,118	N/A	US\$ 1,118	
	Wesfarmers Ltd	-	"	-	US\$ 1,095	N/A	US\$ 1,095	
	Marsh & McLennan Cos Inc	-	"	-	US\$ 1,085	N/A	US\$ 1,085	
	International Paper Co	-	"	-	US\$ 1,075	N/A	US\$ 1,075	
	Glencore Finance Canada Ltd	-	"	-	US\$ 1,067	N/A	US\$ 1,067	
	African Development Bank	-	"	-	US\$ 1,064	N/A	US\$ 1,064	
	CA Inc	-	"	-	US\$ 1,064	N/A	US\$ 1,064	
	General Electric Co	-	"	-	US\$ 1,050	N/A	US\$ 1,050	
	Merck & Co Inc	-	"	-	US\$ 1,049	N/A	US\$ 1,049	
	EOG Resources Inc	-	"	-	US\$ 1,042	N/A	US\$ 1,042	
	Commonwealth Edison Co	-	"	-	US\$ 1,037	N/A	US\$ 1,037	
	Athene Global Funding	-	"	-	US\$ 1,032	N/A	US\$ 1,032	
	Lincoln National Corp	-	"	-	US\$ 1,029	N/A	US\$ 1,029	
	Statoil ASA	-	"	-	US\$ 1,016	N/A	US\$ 1,016	
	Biogen Inc	-	"	-	US\$ 1,013	N/A	US\$ 1,013	
	Berkshire Hathaway Energy Co	-	"	-	US\$ 1,009	N/A	US\$ 1,009	
	Unum Group	-	"	-	US\$ 1,007	N/A	US\$ 1,007	
	Tencent Holdings Ltd	-	"	-	US\$ 1,006	N/A	US\$ 1,006	
	Ares Capital Corp	-	"	-	US\$ 1,004	N/A	US\$ 1,004	
	Laboratory Corp of America Holdings	-	"	-	US\$ 1,002	N/A	US\$ 1,002	
	Home Depot Inc/The	-	"	-	US\$ 1,000	N/A	US\$ 1,000	
	John Deere Capital Corp	-	"	-	US\$ 999	N/A	US\$ 999	
	JM Smucker Co/The	-	"	-	US\$ 998	N/A	US\$ 998	
	Healthcare Trust of America Holdings LP	-	"	-	US\$ 997	N/A	US\$ 997	
	Bunge Ltd Finance Corp	-	"	-	US\$ 992	N/A	US\$ 992	
	Energy Texas Inc	-	"	-	US\$ 992	N/A	US\$ 992	
	XLIT Ltd	-	"	-	US\$ 988	N/A	US\$ 988	
	Capital One Bank USA NA	-	"	-	US\$ 976	N/A	US\$ 976	
	National Retail Properties Inc	-	"	-	US\$ 965	N/A	US\$ 965	
	PPL Capital Funding Inc	-	"	-	US\$ 932	N/A	US\$ 932	
	Duke Energy Progress LLC	-	"	-	US\$ 929	N/A	US\$ 929	
	Coca-Cola Femsa SAB de CV	-	"	-	US\$ 917	N/A	US\$ 917	
	Lockheed Martin Corp	-	"	-	US\$ 905	N/A	US\$ 905	
	Southern Electric Generating Co	-	"	-	US\$ 901	N/A	US\$ 901	

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Held Company Name	Marketable Securities Type and Name	Relationship with the Company	Financial Statement Account	December 31, 2017				Note
				Shares/Units (In Thousands)	Carrying Value (Foreign Currencies in Thousands)	Percentage of Ownership (%)	Fair Value (Foreign Currencies in Thousands)	
TSMC Global	Wal-Mart Stores Inc	-	Available-for-sale financial assets	-	US\$ 894	N/A	US\$ 894	
	CNOOC Finance Ltd	-	"	-	US\$ 884	N/A	US\$ 884	
	Federal Realty Investment Trust	-	"	-	US\$ 863	N/A	US\$ 863	
	Baker Hughes a GE Co LLC/Baker Hughes Co-Obligor Inc	-	"	-	US\$ 858	N/A	US\$ 858	
	Mastercard Inc	-	"	-	US\$ 849	N/A	US\$ 849	
	Huntington Bancshares Inc/OH	-	"	-	US\$ 836	N/A	US\$ 836	
	Consolidated Edison Co of New York Inc	-	"	-	US\$ 835	N/A	US\$ 835	
	MetLife Inc	-	"	-	US\$ 819	N/A	US\$ 819	
	Continental Airlines 2000-1 Class A-1 Pass Through Trust	-	"	-	US\$ 817	N/A	US\$ 817	
	Aon PLC	-	"	-	US\$ 812	N/A	US\$ 812	
	Nucor Corp	-	"	-	US\$ 812	N/A	US\$ 812	
	ONEOK Partners LP	-	"	-	US\$ 805	N/A	US\$ 805	
	AXIS Specialty Finance LLC	-	"	-	US\$ 802	N/A	US\$ 802	
	Activision Blizzard Inc	-	"	-	US\$ 794	N/A	US\$ 794	
	Incitec Pivotal Finance LLC	-	"	-	US\$ 794	N/A	US\$ 794	
	Manulife Financial Corp	-	"	-	US\$ 793	N/A	US\$ 793	
	Spectra Energy Partners LP	-	"	-	US\$ 785	N/A	US\$ 785	
	Sinopec Capital Ltd	-	"	-	US\$ 779	N/A	US\$ 779	
	Baidu Inc	-	"	-	US\$ 753	N/A	US\$ 753	
	Crown Castle Towers LLC	-	"	-	US\$ 737	N/A	US\$ 737	
	Duke Energy Progress LLC	-	"	-	US\$ 720	N/A	US\$ 720	
	APT Pipelines Ltd	-	"	-	US\$ 719	N/A	US\$ 719	
	Baker Hughes a GE Co LLC	-	"	-	US\$ 715	N/A	US\$ 715	
	DTE Energy Co	-	"	-	US\$ 714	N/A	US\$ 714	
	American Honda Finance Corp	-	"	-	US\$ 706	N/A	US\$ 706	
	Total Capital International SA	-	"	-	US\$ 700	N/A	US\$ 700	
	Norfolk Southern Railway Co	-	"	-	US\$ 700	N/A	US\$ 700	
	Scentre Group Trust 1/Scentre Group Trust 2	-	"	-	US\$ 698	N/A	US\$ 698	
	TTX Co	-	"	-	US\$ 698	N/A	US\$ 698	
	Vornado Realty LP	-	"	-	US\$ 697	N/A	US\$ 697	
	Three Georges Finance 1 Cayman Islands Ltd	-	"	-	US\$ 687	N/A	US\$ 687	
	Rochester Gas & Electric Corp	-	"	-	US\$ 681	N/A	US\$ 681	
	ING Bank NV	-	"	-	US\$ 675	N/A	US\$ 675	
	Ohio Power Co	-	"	-	US\$ 659	N/A	US\$ 659	
	Continental Airlines 2007-1 Class A Pass Through Trust	-	"	-	US\$ 658	N/A	US\$ 658	
	Entergy Gulf States Louisiana LLC	-	"	-	US\$ 649	N/A	US\$ 649	
	Georgia Power Co	-	"	-	US\$ 646	N/A	US\$ 646	
	Fortive Corp	-	"	-	US\$ 644	N/A	US\$ 644	
	RBC USA Holdco Corp	-	"	-	US\$ 642	N/A	US\$ 642	
	Alexandria Real Estate Equities Inc	-	"	-	US\$ 637	N/A	US\$ 637	
	Liberty Property LP	-	"	-	US\$ 631	N/A	US\$ 631	
	Grupo Bimbo SAB de CV	-	"	-	US\$ 631	N/A	US\$ 631	
	Potash Corp of Saskatchewan Inc	-	"	-	US\$ 628	N/A	US\$ 628	
	Daiwa Securities Group Inc	-	"	-	US\$ 613	N/A	US\$ 613	
	Dr Pepper Snapple Group Inc	-	"	-	US\$ 612	N/A	US\$ 612	
	BOC Aviation Ltd	-	"	-	US\$ 612	N/A	US\$ 612	
	Life Technologies Corp	-	"	-	US\$ 610	N/A	US\$ 610	
	Altria Group Inc	-	"	-	US\$ 604	N/A	US\$ 604	
	Kimberly-Clark Corp	-	"	-	US\$ 598	N/A	US\$ 598	
	American Express Co	-	"	-	US\$ 592	N/A	US\$ 592	
	ABC Inc	-	"	-	US\$ 591	N/A	US\$ 591	
	Host Hotels & Resorts LP	-	"	-	US\$ 588	N/A	US\$ 588	
	Mizuho Bank Ltd	-	"	-	US\$ 578	N/A	US\$ 578	
	AvalonBay Communities Inc	-	"	-	US\$ 576	N/A	US\$ 576	
	AXIS Specialty Finance PLC	-	"	-	US\$ 573	N/A	US\$ 573	
	Boston Properties LP	-	"	-	US\$ 550	N/A	US\$ 550	
	Caisse Centrale Desjardins	-	"	-	US\$ 550	N/A	US\$ 550	
	Exxon Mobil Corp	-	"	-	US\$ 548	N/A	US\$ 548	
	Bunge Ltd Finance Corp	-	"	-	US\$ 542	N/A	US\$ 542	

(Continued)

Held Company Name	Marketable Securities Type and Name	Relationship with the Company	Financial Statement Account	December 31, 2017				Note
				Shares/Units (In Thousands)	Carrying Value (Foreign Currencies in Thousands)	Percentage of Ownership (%)	Fair Value (Foreign Currencies in Thousands)	
TSMC Global	Prudential Financial Inc	-	Available-for-sale financial assets	-	US\$ 536	N/A	US\$ 536	
	American Electric Power Co Inc	-	"	-	US\$ 522	N/A	US\$ 522	
	Southwestern Electric Power Co	-	"	-	US\$ 521	N/A	US\$ 521	
	Fulton Financial Corp	-	"	-	US\$ 517	N/A	US\$ 517	
	TD Ameritrade Holding Corp	-	"	-	US\$ 516	N/A	US\$ 516	
	Regency Centers Corp	-	"	-	US\$ 512	N/A	US\$ 512	
	Burlington Northern Santa Fe LLC	-	"	-	US\$ 504	N/A	US\$ 504	
	Walgreens Boots Alliance Inc	-	"	-	US\$ 503	N/A	US\$ 503	
	ORIX Corp	-	"	-	US\$ 501	N/A	US\$ 501	
	BNP Paribas/BNP Paribas US Medium-Term Note Program LLC	-	"	-	US\$ 501	N/A	US\$ 501	
	Swedbank AB	-	"	-	US\$ 501	N/A	US\$ 501	
	Halliburton Co	-	"	-	US\$ 500	N/A	US\$ 500	
	MassMutual Global Funding II	-	"	-	US\$ 486	N/A	US\$ 486	
	Comerica Inc	-	"	-	US\$ 473	N/A	US\$ 473	
	Eaton Corp	-	"	-	US\$ 470	N/A	US\$ 470	
	Narragansett Electric Co/The	-	"	-	US\$ 466	N/A	US\$ 466	
	CenterPoint Energy Inc	-	"	-	US\$ 463	N/A	US\$ 463	
	Spire Inc	-	"	-	US\$ 458	N/A	US\$ 458	
	Equifax Inc	-	"	-	US\$ 454	N/A	US\$ 454	
	Canadian Pacific Railway Co	-	"	-	US\$ 437	N/A	US\$ 437	
	Texas-New Mexico Power Co	-	"	-	US\$ 434	N/A	US\$ 434	
	Nationwide Building Society	-	"	-	US\$ 431	N/A	US\$ 431	
	Valero Energy Corp	-	"	-	US\$ 431	N/A	US\$ 431	
	Woolworths Group Ltd	-	"	-	US\$ 415	N/A	US\$ 415	
	TransCanada Pipelines Ltd	-	"	-	US\$ 415	N/A	US\$ 415	
	Volkswagen Group of America Finance LLC	-	"	-	US\$ 399	N/A	US\$ 399	
	Southern Power Co	-	"	-	US\$ 396	N/A	US\$ 396	
	IBM Credit LLC	-	"	-	US\$ 394	N/A	US\$ 394	
	StanCorp Financial Group Inc	-	"	-	US\$ 391	N/A	US\$ 391	
	Aon Corp	-	"	-	US\$ 390	N/A	US\$ 390	
	First Niagara Financial Group Inc	-	"	-	US\$ 382	N/A	US\$ 382	
	Nationwide Financial Services Inc	-	"	-	US\$ 377	N/A	US\$ 377	
	CenterPoint Energy Resources Corp	-	"	-	US\$ 364	N/A	US\$ 364	
	NetApp Inc	-	"	-	US\$ 362	N/A	US\$ 362	
	Deutsche Bank AG	-	"	-	US\$ 351	N/A	US\$ 351	
	Phillips 66	-	"	-	US\$ 325	N/A	US\$ 325	
	Cisco Systems Inc	-	"	-	US\$ 322	N/A	US\$ 322	
	PacificCorp	-	"	-	US\$ 314	N/A	US\$ 314	
	eBay Inc	-	"	-	US\$ 303	N/A	US\$ 303	
	Schlumberger Finance Canada Ltd	-	"	-	US\$ 298	N/A	US\$ 298	
	Eli Lilly & Co	-	"	-	US\$ 294	N/A	US\$ 294	
	BAE Systems Holdings Inc	-	"	-	US\$ 289	N/A	US\$ 289	
	Barclays Bank PLC	-	"	-	US\$ 289	N/A	US\$ 289	
	Amphenol Corp	-	"	-	US\$ 288	N/A	US\$ 288	
	EMD Finance LLC	-	"	-	US\$ 279	N/A	US\$ 279	
	Nomura Holdings Inc	-	"	-	US\$ 252	N/A	US\$ 252	
	NBCUniversal Enterprise Inc	-	"	-	US\$ 249	N/A	US\$ 249	
	CMS Energy Corp	-	"	-	US\$ 243	N/A	US\$ 243	
	Kansas City Power & Light Co	-	"	-	US\$ 237	N/A	US\$ 237	
	Hartford Financial Services Group Inc/The	-	"	-	US\$ 237	N/A	US\$ 237	
	Protective Life Corp	-	"	-	US\$ 228	N/A	US\$ 228	
	WestRock MWV LLC	-	"	-	US\$ 227	N/A	US\$ 227	
	Rolls-Royce PLC	-	"	-	US\$ 223	N/A	US\$ 223	
	Assurant Inc	-	"	-	US\$ 210	N/A	US\$ 210	
	Fidelity National Information Services Inc	-	"	-	US\$ 210	N/A	US\$ 210	
	Commonwealth Bank of Australia	-	"	-	US\$ 206	N/A	US\$ 206	
	Pinnacle West Capital Corp	-	"	-	US\$ 201	N/A	US\$ 201	
	Schneider Electric SE	-	"	-	US\$ 199	N/A	US\$ 199	
		-	"	-	US\$ 161	N/A	US\$ 161	

(Continued)

Held Company Name	Marketable Securities Type and Name	Relationship with the Company	Financial Statement Account	December 31, 2017			Note
				Shares/Units (In Thousands)	Carrying Value (Foreign Currencies in Thousands)	Percentage of Ownership (%)	
TSMC Global	Packaging Corp of America	-	Available-for-sale financial assets	-	US\$ 160	N/A	US\$ 160
	Berkshire Hathaway Finance Corp	-	"	-	US\$ 135	N/A	US\$ 135
	Duke Energy Florida LLC	-	"	-	US\$ 120	N/A	US\$ 120
	Wells Fargo & Co	-	Held-to-maturity financial assets	-	US\$ 150,005	N/A	US\$ 152,279
	JPMorgan Chase & Co.	-	"	-	US\$ 142,042	N/A	US\$ 143,994
	Goldman Sachs Group, Inc.	-	"	-	US\$ 100,000	N/A	US\$ 100,943
	Westpac Banking Corp.	-	"	-	US\$ 100,000	N/A	US\$ 100,774
	Commonwealth Bank of Australia	-	"	-	US\$ 50,000	N/A	US\$ 50,363
	National Australia Bank	-	"	-	US\$ 50,000	N/A	US\$ 50,277
	Bank of Nova Scotia	-	"	-	US\$ 49,990	N/A	US\$ 50,236
	Industrial and Commercial Bank of China	-	"	-	US\$ 10,000	N/A	US\$ 10,005
	Government bond	-					
	United States Treasury Note/Bond	-	Available-for-sale financial assets	-	US\$ 260,156	N/A	US\$ 260,156
	Abu Dhabi Government International Bond	-	"	-	US\$ 3,430	N/A	US\$ 3,430
	Agency bonds/Agency mortgage-backed securities	-					
	Fannie Mae	-	Available-for-sale financial assets	-	US\$ 590,123	N/A	US\$ 590,123
	Freddie Mac	-	"	-	US\$ 233,117	N/A	US\$ 233,117
	Government National Mortgage Association	-	"	-	US\$ 111,741	N/A	US\$ 111,741
	Ginnie Mae	-	"	-	US\$ 28,254	N/A	US\$ 28,254
	Federal Home Loan Banks	-	"	-	US\$ 6,147	N/A	US\$ 6,147
	Freddie Mac Multifamily Structured Pass Through Certificates	-	"	-	US\$ 3,865	N/A	US\$ 3,865
	Export-Import Bank of Korea	-	"	-	US\$ 3,004	N/A	US\$ 3,004
	Export Development Canada	-	"	-	US\$ 2,990	N/A	US\$ 2,990
	Province of Quebec Canada	-	"	-	US\$ 2,551	N/A	US\$ 2,551
	NCUA Guaranteed Notes Trust 2010-R2	-	"	-	US\$ 1,537	N/A	US\$ 1,537
	CPPIB Capital Inc.	-	"	-	US\$ 1,180	N/A	US\$ 1,180
	Federal Farm Credit Banks	-	"	-	US\$ 894	N/A	US\$ 894
	FHLMC-GNMA	-	"	-	US\$ 313	N/A	US\$ 313
	Asset-backed securities	-					
	Citibank Credit Card Issuance Trust	-	Available-for-sale financial assets	-	US\$ 48,328	N/A	US\$ 48,328
	Discover Card Execution Note Trust	-	"	-	US\$ 45,722	N/A	US\$ 45,722
	Chase Issuance Trust	-	"	-	US\$ 39,211	N/A	US\$ 39,211
	American Express Credit Account Master Trust	-	"	-	US\$ 31,060	N/A	US\$ 31,060
	Capital One Multi-Asset Execution Trust	-	"	-	US\$ 22,544	N/A	US\$ 22,544
	Ford Credit Floorplan Master Owner Trust A	-	"	-	US\$ 20,808	N/A	US\$ 20,808
	Ford Credit Auto Owner Trust/Ford Credit 2014-REV1	-	"	-	US\$ 13,904	N/A	US\$ 13,904
	UBS-Barclays Commercial Mortgage Trust 2012-C2	-	"	-	US\$ 12,792	N/A	US\$ 12,792
	COMM Mortgage Trust	-	"	-	US\$ 12,234	N/A	US\$ 12,234
	Morgan Stanley Bank of America Merrill Lynch Trust	-	"	-	US\$ 12,002	N/A	US\$ 12,002
	Toyota Auto Receivables 2014-C Owner Trust	-	"	-	US\$ 11,431	N/A	US\$ 11,431
	Chesapeake Funding II LLC	-	"	-	US\$ 10,953	N/A	US\$ 10,953
	BA Credit Card Trust	-	"	-	US\$ 10,821	N/A	US\$ 10,821
	GM Financial Automobile Leasing Trust 2015-3	-	"	-	US\$ 10,359	N/A	US\$ 10,359
	Mercedes-Benz Master Owner Trust	-	"	-	US\$ 10,049	N/A	US\$ 10,049
	JPMCC Commercial Mortgage Securities Trust 2017-JP7	-	"	-	US\$ 9,335	N/A	US\$ 9,335
	Hyundai Auto Lease Securitization Trust 2017-A	-	"	-	US\$ 9,179	N/A	US\$ 9,179
	Honda Auto Receivables 2017-2 Owner Trust	-	"	-	US\$ 8,787	N/A	US\$ 8,787
	BANK	-	"	-	US\$ 8,047	N/A	US\$ 8,047
	CGD BB Commercial Mortgage Trust 2017-BIOC	-	"	-	US\$ 7,509	N/A	US\$ 7,509
	Nissan Auto Lease Trust	-	"	-	US\$ 7,114	N/A	US\$ 7,114
	GS Mortgage Securities Trust	-	"	-	US\$ 7,001	N/A	US\$ 7,001
	Ford Credit Auto Owner Trust	-	"	-	US\$ 6,859	N/A	US\$ 6,859
	Citigroup Commercial Mortgage Trust 2013-GC11	-	"	-	US\$ 6,769	N/A	US\$ 6,769
	JPMBB Commercial Mortgage Securities Trust 2013-C12	-	"	-	US\$ 6,749	N/A	US\$ 6,749
	Hyundai Auto Receivables Trust	-	"	-	US\$ 6,728	N/A	US\$ 6,728
	Nissan Master Owner Trust Receivables	-	"	-	US\$ 6,511	N/A	US\$ 6,511
	BMW Vehicle Lease Trust	-	"	-	US\$ 5,961	N/A	US\$ 5,961

(Continued)

Held Company Name	Marketable Securities Type and Name	Relationship with the Company	Financial Statement Account	December 31, 2017				Note
				Shares/Units (In Thousands)	Carrying Value (Foreign Currencies in Thousands)	Percentage of Ownership (%)	Fair Value (Foreign Currencies in Thousands)	
TSMC Global	Nissan Auto Receivables 2017-B Owner Trust	-	Available-for-sale financial assets	-	US\$ 4,863	N/A	US\$ 4,863	
	Ford Credit Auto Lease Trust	-	"	-	US\$ 4,528	N/A	US\$ 4,528	
	GM Financial Consumer Automobile 2017-1	-	"	-	US\$ 3,970	N/A	US\$ 3,970	
	Cold Storage Trust 2017-ICE3	-	"	-	US\$ 3,811	N/A	US\$ 3,811	
	Wheels SPV 2 LLC	-	"	"	US\$ 3,624	N/A	US\$ 3,624	
	Hertz Fleet Lease Funding LP	-	"	"	US\$ 3,486	N/A	US\$ 3,486	
	Wells Fargo Commercial Mortgage Trust 2015-LC20	-	"	"	US\$ 3,434	N/A	US\$ 3,434	
	Volvo Financial Equipment Master Owner Trust 2017-A	-	"	"	US\$ 3,009	N/A	US\$ 3,009	
	CSMC OA LLC	-	"	"	US\$ 2,877	N/A	US\$ 2,877	
	BMW Floorplan Master Owner Trust	-	"	"	US\$ 2,442	N/A	US\$ 2,442	
	JPMDB Commercial Mortgage Securities Trust 2017-C7	-	"	"	US\$ 2,006	N/A	US\$ 2,006	
	Mercedes-Benz Auto Lease Trust 2016-A	-	"	"	US\$ 1,820	N/A	US\$ 1,820	
	Morgan Stanley Capital I Trust	-	"	"	US\$ 1,513	N/A	US\$ 1,513	
	CFCRE Commercial Mortgage Trust 2011-C1	-	"	"	US\$ 998	N/A	US\$ 998	
Enterprise Fleet Financing LLC	-	"	"	US\$ 845	N/A	US\$ 845		
280 Park Avenue Mortgage Trust	-	"	"	US\$ 831	N/A	US\$ 831		
Mercedes-Benz Auto Receivables Trust 2015-1	-	"	"	US\$ 501	N/A	US\$ 501		
WFRBS Commercial Mortgage Trust 2013-C14	-	"	"	US\$ 485	N/A	US\$ 485		
Structure product								
Bank of Tokyo-Mitsubishi UFJ			Held-to-maturity financial assets	-	US\$ 50,000	N/A	US\$ 49,744	
Commercial paper								
Societe Generale Instl			Available-for-sale financial assets	-	US\$ 2,000	N/A	US\$ 2,000	
Norinchukin Bank			"	-	US\$ 2,000	N/A	US\$ 2,000	
Bank of Tokyo-Mitsubishi UFJ			"	-	US\$ 1,000	N/A	US\$ 1,000	
Fund								
Primavera Capital Fund II L.P.			Financial assets carried at cost	-	US\$ 65,635	4	US\$ 65,635	
Common stock								
LiquidLeds Lighting Corp.			Financial assets carried at cost	1,600	US\$ 800	11	US\$ 800	
Preferred stock								
Neocomix, Inc.			Financial assets carried at cost	4,147	US\$ 170	-	US\$ 170	
Common stock								
Aquantia			Available-for-sale financial assets	460	US\$ 5,209	1	US\$ 5,209	
Sentelic			Financial assets carried at cost	903	US\$ 2,607	4	US\$ 2,607	
5V Technologies, Inc.			"	963	US\$ 2,168	2	US\$ 2,168	
Aether Systems, Inc.			"	1,085	US\$ 339	20	US\$ 339	
Preferred stock								
Sonics, Inc.			Financial assets carried at cost	230	-	3	-	
Common stock								
Sonics, Inc.			Financial assets carried at cost	278	-	4	-	
Preferred stock								
Sonics, Inc.			Financial assets carried at cost	264	-	4	-	
Common stock								
Immovium, Inc.			Financial assets carried at cost	221	US\$ 370	-	US\$ 370	
Preferred stock								
Immovium, Inc.			Financial assets carried at cost	230	US\$ 384	-	US\$ 384	

(Concluded)

Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries

MARKETABLE SECURITIES ACQUIRED AND DISPOSED OF AT COSTS OR PRICES OF AT LEAST NT\$300 MILLION OR 20% OF THE PAID-IN CAPITAL FOR THE YEAR ENDED DECEMBER 31, 2017

(Amounts in Thousands of New Taiwan Dollars, Unless Specified Otherwise)

Company Name	Marketable Securities Type and Name	Financial Statement Account	Counter-party	Nature of Relationship	Beginning Balance		Acquisition		Disposal		Ending Balance (Note 1)	
					Shares/Units (In Thousands)	Amount	Shares/Units (In Thousands)	Amount	Shares/Units (In Thousands)	Amount	Carrying Value	Gain/Loss on Disposal
TSMC	Corporate bond	Held-to-maturity financial assets	-	-	-	\$ 1,967,303	-	\$ -	\$ 1,960,000	-	-	\$ -
	CPC Corporation, Taiwan	"	-	-	-	400,250	-	-	400,000	-	-	-
	Hon Hai Precision Ind. Co., Ltd.	"	-	-	-	-	-	-	-	-	-	-
	Commercial paper	Held-to-maturity financial assets	-	-	865	8,628,176	170	1,695,771	10,350,000	-	-	-
TSMC Partners	Taiwan Power Company	"	-	-	-	-	-	-	-	-	-	-
	Stock	Investments accounted for using equity method	-	-	7	265,634,729	2	60,683,010	-	-	-	309,211,877
	TSMC Global	"	-	-	-	6,331,094	-	21,724,892	-	-	-	26,493,740
	TSMC Nanjing	"	-	-	-	-	-	-	-	-	-	-
TSMC Global	Stock	Investments accounted for using equity method	Note 2	-	9,299	US\$ 6,078	-	-	US\$ 15,552	-	-	US\$ 28
	ISDF II	"	-	-	-	-	-	-	-	-	-	-
	Corporate bond	Available-for-sale financial assets	-	-	-	US\$ 27,973	-	US\$ 30,914	US\$ 18,071	US\$ 18,205	US\$ (134)	US\$ 40,876
	Bank of America Corp	"	-	-	-	-	-	-	US\$ 5,816	US\$ 5,833	US\$ (17)	US\$ 29,911
TSMC Global	Citigroup Inc	"	-	-	-	US\$ 16,819	-	US\$ 18,955	US\$ 6,438	US\$ 6,438	US\$ (13)	US\$ 26,867
	AT&T Inc	"	-	-	-	US\$ 13,332	-	US\$ 19,933	US\$ 12,151	US\$ 12,258	US\$ (107)	US\$ 26,159
	JPMorgan Chase & Co	"	-	-	-	US\$ 22,330	-	US\$ 16,030	US\$ 1,900	US\$ 1,976	US\$ (76)	US\$ 22,709
	Goldman Sachs Group Inc/The	"	-	-	-	US\$ 7,390	-	US\$ 17,211	US\$ 9,018	US\$ 8,973	US\$ 45	US\$ 18,505
	Morgan Stanley	"	-	-	-	US\$ 11,237	-	US\$ 16,115	US\$ 15,042	US\$ 15,163	US\$ (121)	US\$ 18,298
	Verizon Communications Inc	"	-	-	-	US\$ 17,059	-	US\$ 11,849	US\$ 1,964	US\$ 2,016	US\$ (52)	US\$ 17,732
	Ford Motor Credit Co LLC	"	-	-	-	US\$ 7,877	-	US\$ 17,144	US\$ 854	US\$ 862	US\$ (8)	US\$ 17,024
	BAT Capital Corp	"	-	-	-	-	-	-	US\$ 201	US\$ 200	US\$ 1	US\$ 12,722
	Apple Inc	"	-	-	-	US\$ 2,607	-	US\$ 14,737	US\$ 1,997	US\$ 1,998	US\$ (1)	US\$ 11,613
	Morgan Stanley	"	-	-	-	-	-	-	US\$ 5,076	US\$ 4,992	US\$ 84	US\$ 9,301
	Tyson Foods Inc	"	-	-	-	US\$ 1,704	-	US\$ 10,425	US\$ 3,561	US\$ 3,548	US\$ 13	US\$ 6,866
	JPMorgan Chase & Co	"	-	-	-	US\$ 1,994	-	US\$ 11,078	US\$ 10,552	US\$ 10,495	US\$ 57	US\$ 2,719
	Asian Development Bank	"	-	-	-	US\$ 2,905	-	US\$ 5,995	US\$ 10,340	US\$ 10,606	US\$ (266)	US\$ 1,608
	Microsoft Corp	"	-	-	-	US\$ 7,180	-	-	US\$ 10,656	US\$ 10,570	US\$ 86	US\$ 1,099
	QUALCOMM Inc	"	-	-	-	US\$ 11,850	-	-	US\$ 393,853	US\$ 394,514	US\$ (661)	US\$ 202,689
	BMW US Capital LLC	"	-	-	-	US\$ 11,618	-	-	US\$ 163,600	US\$ 163,487	US\$ 113	US\$ 49,901
	Gilead Sciences Inc	"	-	-	-	-	-	-	US\$ 25,197	US\$ 25,187	US\$ 10	US\$ 2,997
	Aetna Inc	"	-	-	-	-	-	-	US\$ 97,712	US\$ 97,678	US\$ 34	US\$ -
	Government bond	Available-for-sale financial assets	-	-	-	US\$ 19,349	-	US\$ 8,060	US\$ 27,343	US\$ 27,515	US\$ (172)	US\$ -
	United States Treasury Note/Bond	"	-	-	-	-	-	-	-	-	-	-
United States Treasury Floating Rate Note	"	-	-	-	US\$ 195,285	-	US\$ 396,552	US\$ 393,853	US\$ 394,514	US\$ (661)	US\$ 202,689	
United States Treasury Bill	"	-	-	-	US\$ 30,756	-	US\$ 182,629	US\$ 163,600	US\$ 163,487	US\$ 113	US\$ 49,901	
United States Treasury Inflation Indexed Bonds	"	-	-	-	-	-	-	US\$ 25,197	US\$ 25,187	US\$ 10	US\$ 2,997	
	"	-	-	-	-	-	-	US\$ 97,712	US\$ 97,678	US\$ 34	US\$ -	
	"	-	-	-	-	-	-	US\$ 27,343	US\$ 27,515	US\$ (172)	US\$ -	

(Continued)

Company Name	Marketable Securities Type and Name	Financial Statement Account	Counter-party	Nature of Relationship	Beginning Balance		Acquisition		Disposal		Ending Balance (Note 1)							
					Shares/Units (In Thousands)	Amount	Shares/Units (In Thousands)	Amount	Shares/Units (In Thousands)	Amount	Carrying Value	Gain/Loss on Disposal	Shares/Units (In Thousands)	Amount				
TSMC Global	Agency bonds/Agency mortgage-backed securities	Available-for-sale financial assets	-	-	-	-	-	-	-	-	-	-						
	FNMA POOL BM3196												US\$ 49,619	-	-	-	US\$ 49,526	
	FNMA POOL BMI948												US\$ 43,322	-	-	US\$ 1,826	US\$ (217)	US\$ 41,275
	FNMA POOL BMI886												US\$ 18,827	-	-	US\$ 495	US\$ (43)	US\$ 18,109
	Government National Mortgage Association												US\$ 16,497	-	-	US\$ 81	US\$ (6)	US\$ 16,739
	Fannie Mae												US\$ 15,777	-	-	US\$ 43	US\$ (71)	US\$ 16,012
	FNMA TBA 30 Yr 4.5												US\$ 59,134	-	-	US\$ 43,295	US\$ (35)	US\$ 15,758
	Fannie Mae												US\$ 14,877	-	-	US\$ 80	US\$ (43)	US\$ 14,512
	Government National Mortgage Association												US\$ 14,352	-	-	-	US\$ (10)	US\$ 14,415
	FNMA POOL AL9903												US\$ 12,520	-	-	US\$ 904	US\$ (106)	US\$ 11,426
	FNMA TBA 30 Yr 3.5												US\$ 65,279	-	-	US\$ 62,406	US\$ -	US\$ 2,866
	FNMA II TBA 30 Yr 4												US\$ 42,194	-	-	US\$ 39,813	US\$ 5	US\$ 2,378
	FNMA TBA 15 Yr 3												US\$ 38,710	-	-	US\$ 36,709	US\$ 17	US\$ 2,015
	FNMA II TBA 30 Yr 3.5												US\$ 27,241	-	-	US\$ 27,087	US\$ (9)	US\$ 145
	FNMA TBA 30 Yr 3												US\$ 154,404	-	-	US\$ 154,494	US\$ 90	-
	FNMA TBA 30 Yr 4												US\$ 21,721	-	-	US\$ 21,726	US\$ 5	-
	FNMA TBA 30 Yr 5												US\$ 11,128	-	-	US\$ 11,134	US\$ 6	-
	Federal Home Loan Bank Discount Notes												US\$ 152,578	-	-	US\$ 152,605	US\$ 27	-
	FED HM LN PC Pool G07375												US\$ 10	US\$ 10	-	US\$ 12,123	US\$ (40)	US\$ -
	GNMA II TBA 30 Yr 3												-	US\$ 12,544	-	US\$ 12,544	US\$ (3)	US\$ -
ISDF II	Asset-backed securities	Available-for-sale financial assets	-	-	-	-	-	-	-	-	-	-						
	Citibank Credit Card Issuance Trust												US\$ 22,585	-	US\$ 33,402	US\$ 7,567	US\$ (199)	US\$ 48,328
	Discover Card Execution Note Trust												US\$ 23,076	-	US\$ 36,655	US\$ 13,991	US\$ (12)	US\$ 45,722
	Chase Issuance Trust												US\$ 31,276	-	US\$ 20,538	US\$ 12,607	US\$ 12,604	US\$ 39,211
	Capital One Multi-Asset Execution Trust												US\$ 39,626	-	US\$ 1,214	US\$ 18,303	US\$ 18,384	US\$ 22,544
	Ford Credit Floorplan Master Owner Trust A												US\$ 11,944	-	US\$ 14,793	US\$ 5,927	US\$ 5,924	US\$ 20,808
	BA Credit Card Trust												US\$ 17,465	-	US\$ 7,784	US\$ 14,407	US\$ 14,416	US\$ 10,821
	Fund												-	US\$ 23,784	-	US\$ 41,851	-	US\$ 65,635
	Primavera Capital Fund II L.P.												-	US\$ 23,784	-	US\$ 41,851	-	US\$ 65,635
	Stock												6,581	US\$ 6,387	-	US\$ 17,960	US\$ 3,207	US\$ 14,753
Alechip Technologies Limited	6,581	US\$ 6,387	-	US\$ 17,960	US\$ 3,207	US\$ 14,753												

Note 1: The ending balance includes the amortization of premium/discount on bonds investments, share of profits/losses of investees and other related adjustment.

Note 2: The disposal is primarily consisted of capital return.

(Concluded)

Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries

ACQUISITION OF INDIVIDUAL REAL ESTATE PROPERTIES AT COSTS OF AT LEAST NT\$300 MILLION OR 20% OF THE PAID-IN CAPITAL FOR THE YEAR ENDED DECEMBER 31, 2017

(Amounts in Thousands of New Taiwan Dollars, Unless Specified Otherwise)

Company Name	Types of Property	Transaction Date	Transaction Amount (Foreign Currencies in Thousands)	Payment Term	Counter-party	Nature of Relationships	Prior Transaction of Related Counter-party			Price Reference	Purpose of Acquisition	Other Terms
							Owner	Relationships	Transfer Date			
TSMC	Fab	August 2, 2016 to December 5, 2017	\$ 642,837	Monthly settlement by the construction progress and acceptance	UNITED INTEGRATED SERVICES CO., LTD.	-	N/A	N/A	N/A	Bidding, price comparison and price negotiation	Manufacturing purpose	None
	Fab	August 10, 2016 to December 28, 2017	6,833,577	Monthly settlement by the construction progress and acceptance	Fu Tsa Construction Co., Ltd.	-	N/A	N/A	N/A	Bidding, price comparison and price negotiation	Manufacturing purpose	None
	Fab	September 22, 2016 to September 5, 2017	302,620	Monthly settlement by the construction progress and acceptance	Uangyih-Tech Industrial Co., Ltd.	-	N/A	N/A	N/A	Bidding, price comparison and price negotiation	Manufacturing purpose	None
	Fab	January 13, 2017 to December 14, 2017	307,199	Monthly settlement by the construction progress and acceptance	WHOLETECH SYSTEM HITECH LIMITED	-	N/A	N/A	N/A	Bidding, price comparison and price negotiation	Manufacturing purpose	None
	Fab	January 18, 2017	352,766	Monthly settlement by the construction progress and acceptance	TASA Construction Corporation	-	N/A	N/A	N/A	Bidding, price comparison and price negotiation	Manufacturing purpose	None
	Fab	March 15, 2017 to November 2, 2017	310,151	Monthly settlement by the construction progress and acceptance	MARKETECH INTERNATIONAL CORP.	-	N/A	N/A	N/A	Bidding, price comparison and price negotiation	Manufacturing purpose	None
	Fab	March 15, 2017 to December 15, 2017	317,397	Monthly settlement by the construction progress and acceptance	LI JIE INDUSTRIAL Co., Ltd	-	N/A	N/A	N/A	Bidding, price comparison and price negotiation	Manufacturing purpose	None
	Fab	March 17, 2017 to December 15, 2017	358,354	Monthly settlement by the construction progress and acceptance	TUN YI INDUSTRIAL Co., Ltd.	-	N/A	N/A	N/A	Bidding, price comparison and price negotiation	Manufacturing purpose	None
	Fab	March 21, 2017 to November 30, 2017	303,996	Monthly settlement by the construction progress and acceptance	Taiwan Puritic Corp.	-	N/A	N/A	N/A	Bidding, price comparison and price negotiation	Manufacturing purpose	None
	Fab	March 21, 2017 to December 25, 2017	300,748	Monthly settlement by the construction progress and acceptance	Gold Stone Development Co., Ltd.	-	N/A	N/A	N/A	Bidding, price comparison and price negotiation	Manufacturing purpose	None
	Fab	March 27, 2017 to December 27, 2017	758,991	Monthly settlement by the construction progress and acceptance	Cica-Huntek Chemical Technology Taiwan Co., Ltd	-	N/A	N/A	N/A	Bidding, price comparison and price negotiation	Manufacturing purpose	None
	Fab	April 14, 2017 to September 29, 2017	485,131	Monthly settlement by the construction progress and acceptance	KEDGE Construction Co., Ltd.	-	N/A	N/A	N/A	Bidding, price comparison and price negotiation	Manufacturing purpose	None
	Fab	April 18, 2017 to November 3, 2017	522,566	Monthly settlement by the construction progress and acceptance	Chen Yuan International Co., Ltd	-	N/A	N/A	N/A	Bidding, price comparison and price negotiation	Manufacturing purpose	None
	Fab	May 25, 2017 to December 29, 2017	6,898,386	Monthly settlement by the construction progress and acceptance	DA CIN Construction Co., Ltd.	-	N/A	N/A	N/A	Bidding, price comparison and price negotiation	Manufacturing purpose	None

(Continued)

Company Name	Types of Property	Transaction Date	Transaction Amount (Foreign Currencies in Thousands)	Payment Term	Counter-party	Nature of Relationships	Prior Transaction of Related Counter-party				Price Reference	Purpose of Acquisition	Other Terms
							Owner	Relationships	Transfer Date	Amount			
TSMC Nanjing Company Ltd.	Fab	March 21, 2017 to June 23, 2017	RMB 183,300	Monthly settlement by the construction progress and acceptance	China Construction First Division Group Construction & Development Co., Ltd.	-	N/A	N/A	N/A	Bidding, price comparison and price negotiation	Manufacturing purpose	None	
	Fab	May 25, 2017	RMB 119,027	Monthly settlement by the construction progress and acceptance	Renchong Interior Decoration(Shanghai) Co., Ltd.	-	N/A	N/A	N/A	Bidding, price comparison and price negotiation	Manufacturing purpose	None	
	Fab	June 22, 2017 to June 27, 2017	RMB 98,000	Monthly settlement by the construction progress and acceptance	Shanghai Baoye Group Co., Ltd.	-	N/A	N/A	N/A	Bidding, price comparison and price negotiation	Manufacturing purpose	None	
	Land use right	December 18, 2017	RMB 180,042	100% payment	Nanjing Municipal Bureau of Land and Resources	-	N/A	N/A	N/A	Bidding	Manufacturing purpose	None	

(Concluded)

Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries

TOTAL PURCHASES FROM OR SALES TO RELATED PARTIES OF AT LEAST NT\$100 MILLION OR 20% OF THE PAID-IN CAPITAL FOR THE YEAR ENDED DECEMBER 31, 2017
(Amounts in Thousands of New Taiwan Dollars, Unless Specified Otherwise)

Company Name	Related Party	Nature of Relationships	Transaction Details			Abnormal Transaction		Notes/Accounts Payable or Receivable		Note
			Purchases/ Sales	Amount (Foreign Currencies in Thousands)	% to Total	Payment Terms	Unit Price	Payment Terms	Ending Balance (Foreign Currencies in Thousands)	
TSMC	TSMC North America	Subsidiary	Sales	\$ 650,351,537	64	Net 30 days from invoice date (Note 1)	-	Note	\$ 91,329,510	77
	GUC	Associate	Sales	6,864,165	1	Net 30 days from the end of the month of when invoice is issued	-	-	777,730	1
	TSMC Nanjing	Subsidiary	Sales	416,672	-	Net 30 days from the end of the month of when invoice is issued	-	-	-	-
	TSMC China	Subsidiary	Purchases	22,059,850	27	Net 30 days from the end of the month of when invoice is issued	-	-	(1,440,141)	5
	WaferTech	Indirect subsidiary	Purchases	8,783,741	11	Net 30 days from the end of the month of when invoice is issued	-	-	(1,328,094)	4
	VIS	Associate	Purchases	5,755,727	7	Net 30 days from the end of the month of when invoice is issued	-	-	(409,950)	1
	SSMC	Associate	Purchases	4,148,190	5	Net 30 days from the end of the month of when invoice is issued	-	-	(406,959)	1
	TSMC North America	GUC	Associate of TSMC	Sales	1,038,560 (US\$ 34,149)	-	Net 30 days from invoice date	-	-	245,162 (US\$ 8,266)
VisEra Tech	Xintec	Associate of TSMC	Sales	401,210	16	Net 30 days from the end of the month of when invoice is issued	-	-	161,232	-
TSMC China	SSMC	Associate of TSMC	Sales	115,075 (RMB 25,304)	1	Net 30 days from the end of the month of when invoice is issued	-	-	-	-

Note: The tenor is 30 days from TSMC's invoice date or determined by the payment terms granted to its clients by TSMC North America.

Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries

RECEIVABLES FROM RELATED PARTIES AMOUNTING TO AT LEAST NT\$100 MILLION OR 20% OF THE PAID-IN CAPITAL
DECEMBER 31, 2017

(Amounts in Thousands of New Taiwan Dollars, Unless Specified Otherwise)

Company Name	Related Party	Nature of Relationships	Ending Balance (Foreign Currencies in Thousands)	Turnover Days (Note 1)	Amount	Overdue		Allowance for Bad Debts
						Action Taken	Amounts Received in Subsequent Period	
TSMC	TSMC North America	Subsidiary	\$ 92,575,611	50	\$ 7,340,068	-	\$ 17,269,052	\$ -
	TSMC Nanjing	Subsidiary	1,754,484	Note 2	-	-	-	-
	GUC	Associate	777,730	45	521,739	-	571,010	-
TSMC China	TSMC	Parent company	1,440,141	26	671	-	671	-
	TSMC Nanjing	The same parent company	(RMB 316,238) 20,167,025 (RMB 4,427,934)	Note 2	(RMB 147)	-	(RMB 147)	-
TSMC Technology	TSMC	The ultimate parent of the Company	266,599 (US\$ 8,989)	Note 2	-	-	-	-
WaferTech	TSMC	The ultimate parent of the Company	1,328,094 (US\$ 44,779)	54	1,554 (US\$ 52)	-	1,554 (US\$ 52)	-
VisEra Tech	Xintec	Associate of TSMC	161,232	43	-	-	-	-
TSMC North America	GUC	Associate of TSMC	245,162 (US\$ 8,266)	50	107,483 (US\$ 3,624)	-	109,366 (US\$ 3,687)	-

Note 1: The calculation of turnover days excludes other receivables from related parties.

Note 2: The ending balance is primarily consisted of other receivables, which is not applicable for the calculation of turnover days.

Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries

**INTERCOMPANY RELATIONSHIPS AND SIGNIFICANT INTERCOMPANY TRANSACTIONS
FOR THE YEAR ENDED DECEMBER 31, 2017
(Amounts in Thousands of New Taiwan Dollars)**

No.	Company Name	Counter Party	Nature of Relationship (Note 1)	Intercompany Transactions			Percentage of Consolidated Net Revenue or Total Assets				
				Financial Statements Item	Amount	Terms (Note 2)					
0	TSMC	TSMC North America	1	Net revenue from sale of goods	\$ 650,351,537	-	67%				
				Receivables from related parties	91,329,510	-	5%				
				Other receivables from related parties	1,246,101	-	-				
				Marketing expenses - commission	210,136	-	-				
				Marketing expenses - commission	437,561	-	-				
				Purchases	22,059,850	-	2%				
				Marketing expenses - commission	135,267	-	-				
				Payables to related parties	1,440,141	-	-				
				Net revenue from sale of goods	416,672	-	-				
				Proceeds from disposal of property, plant and equipment	14,336,846	-	1%				
1	TSMC China	TSMC Nanjing	1	Other receivables from related parties	1,754,484	-	-				
				Research and development expenses	251,800	-	-				
				Research and development expenses	1,894,942	-	-				
				Payables to related parties	266,599	-	-				
				Purchases	8,783,741	-	1%				
				Proceeds from disposal of property, plant and equipment	120,790	-	-				
				Payables to related parties	1,328,094	-	-				
				Other receivables from related parties	20,167,025	-	1%				
				1	TSMC China	TSMC Nanjing	3	Net revenue from sale of goods	\$ 650,351,537	-	67%
								Receivables from related parties	91,329,510	-	5%
Other receivables from related parties	1,246,101	-	-								
Marketing expenses - commission	210,136	-	-								
Marketing expenses - commission	437,561	-	-								
Purchases	22,059,850	-	2%								
Marketing expenses - commission	135,267	-	-								
Payables to related parties	1,440,141	-	-								
Net revenue from sale of goods	416,672	-	-								
Proceeds from disposal of property, plant and equipment	14,336,846	-	1%								

Note 1: No. 1 represents the transactions from parent company to subsidiary.
No. 3 represents the transactions between subsidiaries.

Note 2: The sales prices and payment terms of intercompany sales are not significantly different from those to third parties. For other intercompany transactions, prices and terms are determined in accordance with mutual agreements.

Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries

NAMES, LOCATIONS, AND RELATED INFORMATION OF INVESTEEES OVER WHICH THE COMPANY EXERCISES SIGNIFICANT INFLUENCE (EXCLUDING INFORMATION ON INVESTMENT IN MAINLAND CHINA) FOR THE YEAR ENDED DECEMBER 31, 2017
(Amounts in Thousands of New Taiwan Dollars, Unless Specified Otherwise)

Investor Company	Investee Company	Location	Main Businesses and Products	Original Investment Amount		Balance as of December 31, 2017			Net Income (Losses) of the Investee (Foreign Currencies in Thousands)	Share of Profits/Losses of Investee (Note 1) (Foreign Currencies in Thousands)	Note
				December 31, 2017 (Foreign Currencies in Thousands)	December 31, 2016 (Foreign Currencies in Thousands)	Shares (In Thousands)	Percentage of Ownership	Carrying Value (Foreign Currencies in Thousands)			
TSMC	TSMC Global TSMC Partners	Tortola, British Virgin Islands Tortola, British Virgin Islands	Investment activities Investing in companies involved in the design, manufacture, and other related business in the semiconductor industry and other investment activities	\$ 292,890,229 31,456,130	\$ 232,207,219 31,456,130	9 988,268	100 100	\$ 309,211,877 49,684,287	\$ 5,026,024 2,225,601	Subsidiary Subsidiary	
	VIS	Hsin-Chu, Taiwan	Manufacturing, selling, packaging, testing and computer-aided design of integrated circuits and other semiconductor devices and the manufacturing and design service of masks	10,180,677	10,180,677	464,223	28	8,568,344	4,505,064	Associate	
	SSMC	Singapore	Manufacturing and selling of integrated circuits and other semiconductor devices	5,120,028	5,120,028	314	39	5,677,640	4,444,634	Associate	
	VisEra Tech	Hsin-Chu, Taiwan	Engaged in manufacturing electronic spare parts and in researching, developing, designing, manufacturing, selling, packaging and testing of color filter	5,005,171	5,005,171	253,120	87	4,667,162	207,557	Subsidiary	
	TSMC North America	San Jose, California, U.S.A	Selling and marketing of integrated circuits and other semiconductor devices	333,718	333,718	11,000	100	4,001,003	5,859	Subsidiary	
	Ximtec	Taoyuan, Taiwan	Wafer level chip size packaging and wafer level post passivation interconnection service	1,988,317	1,988,317	111,282	41	2,292,100	(733,280)	Associate	
	GUC	Hsin-Chu, Taiwan	Researching, developing, manufacturing, testing and marketing of integrated circuits	386,568	386,568	46,688	35	1,300,194	854,809	Associate	
	TSMC Europe VTAF II VTAF III	Amsterdam, the Netherlands Cayman Islands Cayman Islands	Customer service and supporting activities Investing in new start-up technology companies	15,749 412,831 1,318,885	15,749 608,562 1,355,417	- - -	100 98 98	407,324 320,533 152,836	40,557 133,597 (25,234)	Subsidiary Subsidiary Subsidiary	
	TSMC Japan TSMC Korea TSMC Solar Europe GmbH	Yokohama, Japan Seoul, Korea Hamburg, Germany	Customer service and supporting activities Customer service and supporting activities Selling of solar related products and providing customer service	83,760 13,656 25,266	83,760 13,656 25,266	6 80 1	100 100 100	129,446 39,210 (20,217)	3,600 1,970 (12,706)	Subsidiary Subsidiary Subsidiary	
	TSMC Partners	TSMC Development	Delaware, U.S.A	Investing in companies involved in the manufacturing related business in the semiconductor industry	17,408,018 (US\$ 586,939)	17,408,018 (US\$ 586,939)	-	100	26,379,465 (US\$ 889,425)	1,448,900 (US\$ 47,479)	Subsidiary
	TSMC Technology	TSMC Technology	Delaware, U.S.A	Engineering support activities	423,590 (US\$ 14,282)	423,590 (US\$ 14,282)	-	100	518,616 (US\$ 17,486)	18,990 (US\$ 617)	Subsidiary
	TSMC Canada	TSMC Canada	Ontario, Canada	Engineering support activities	68,216 (US\$ 2,300)	68,216 (US\$ 2,300)	2,300	100	182,321 (US\$ 6,147)	15,597 (US\$ 512)	Subsidiary
	ISDF II	ISDF II	Cayman Islands	Investing in new start-up technology companies	-	(US\$ 5,194)	9,299	97	839 (US\$ 28)	378,299 (US\$ 12,491)	Subsidiary
	ISDF	ISDF	Cayman Islands	Investing in new start-up technology companies	14,094 (US\$ 475)	14,094 (US\$ 475)	583	97	492 (US\$ 17)	44 (US\$ 1)	Subsidiary
VTAF III	Growth Fund Mutual-Pak	Cayman Islands New Taipei, Taiwan	Investing in new start-up technology companies Manufacturing of electronic parts, wholesaling and retailing of electronic materials, and researching, developing and testing of RFID	63,879 (US\$ 2,154) 47,257 (US\$ 1,593)	43,355 (US\$ 1,462) 154,602 (US\$ 5,213)	- 4,693	100 39	46,334 (US\$ 1,562) 23,210 (US\$ 783)	(1,385) (US\$ (46)) (18,028) (US\$ (589))	Subsidiary Associate	

(Continued)

Investor Company	Investee Company	Location	Main Businesses and Products	Original Investment Amount		Balance as of December 31, 2017			Net Income (Losses) of the Investee (Foreign Currencies in Thousands)	Share of Profits/Losses of Investee (Note 1) (Foreign Currencies in Thousands)	Note
				December 31, 2017 (Foreign Currencies in Thousands)	December 31, 2016 (Foreign Currencies in Thousands)	Shares (In Thousands)	Percentage of Ownership	Carrying Value (Foreign Currencies in Thousands)			
TSMC Development	WaferTech	Washington, U.S.A	Manufacturing, selling and testing of integrated circuits and other semiconductor devices	\$ -	\$ -	293,637	100	\$ 4,762,342 (US\$ 160,570)	\$ 1,248,658 (US\$ 40,896)	Note 2	Subsidiary

Note 1: The share of profits/losses of investee includes the effect of unrealized gross profit on intercompany transactions.

Note 2: The share of profits/losses of the investee company is not reflected herein as such amount is already included in the share of profits/losses of the investor company.

(Concluded)

Taiwan Semiconductor Manufacturing Company Limited and Subsidiaries

INFORMATION ON INVESTMENT IN MAINLAND CHINA
FOR YEAR ENDED DECEMBER 31, 2017

(Amounts in Thousands of New Taiwan Dollars, Unless Specified Otherwise)

Investee Company	Main Businesses and Products	Total Amount of Paid-in Capital (RMB in Thousands)	Method of Investment	Accumulated Outflow of Investment from Taiwan as of January 1, 2017 (US\$ in Thousands)	Investment Flows		Accumulated Outflow of Investment from Taiwan as of December 31, 2017 (US\$ in Thousands)	Net Income (Losses) of the Investee Company	Percentage of Ownership	Share of Profits/Losses	Carrying Amount as of December 31, 2017	Accumulated Inward Remittance of Earnings as of December 31, 2017
					Outflow (US\$ in Thousands)	Inflow						
TSMC China	Manufacturing, selling, testing and computer-aided design of integrated circuits and other semiconductor devices	\$ 18,939,667 (RMB 4,502,080)	Note 1	\$ 18,939,667 (US\$ 596,000)	\$ -	\$ -	\$ 18,939,667 (US\$ 596,000)	\$ 8,938,933	100%	\$ 9,058,937 (Note 2)	\$ 51,060,885	\$ -
TSMC Nanjing	Manufacturing, selling, testing and computer-aided design of integrated circuits and other semiconductor devices	28,160,092 (RMB 6,133,276)	Note 1	6,435,200 (US\$ 200,000)	21,724,892 (US\$ 720,000)	-	28,160,092 (US\$ 920,000)	(867,563)	100%	(867,563) (Note 2)	26,493,740	-

Accumulated Investment in Mainland China as of December 31, 2017 (US\$ in Thousands)	Investment Amounts Authorized by Investment Commission, MOEA (US\$ in Thousands)	Upper Limit on Investment
\$ 47,099,759 (US\$ 1,516,000)	\$ 119,412,667 (US\$ 3,596,000)	Note 3

Note 1: TSMC directly invested US\$596,000 thousand in TSMC China and US\$920,000 thousands in TSMC Nanjing.

Note 2: Amount was recognized based on the audited financial statements.

Note 3: As the Company has obtained the certificate of being qualified for operating headquarters issued by Industrial Development Bureau, MOEA on August 2016, the upper limit on investment in mainland China pursuant to "Principle of investment or Technical Cooperation in Mainland China" is not applicable.

**Taiwan Semiconductor Manufacturing
Company Limited**

**Parent Company Only Financial Statements for the
Years Ended December 31, 2017 and 2016 and
Independent Auditors' Report**

INDEPENDENT AUDITORS' REPORT

The Board of Directors and Shareholders
Taiwan Semiconductor Manufacturing Company Limited

Opinion

We have audited the accompanying parent company only financial statements of Taiwan Semiconductor Manufacturing Company Limited (the "Company"), which comprise the parent company only balance sheets as of December 31, 2017 and 2016, and the parent company only statements of comprehensive income, changes in equity and cash flows for the years then ended, and the notes to the parent company only financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying parent company only financial statements present fairly, in all material respects, the parent company only financial position of the Company as of December 31, 2017 and 2016, and its parent company only financial performance and its parent company only cash flows for the years then ended in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers.

Basis for Opinion

We conducted our audits in accordance with the Regulations Governing Auditing and Attestation of Financial Statements by Certified Public Accountants and auditing standards generally accepted in the Republic of China. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of Parent Company Only Financial Statements section of our report. We are independent of the Company in accordance with The Norm of Professional Ethics for Certified Public Accountant of the Republic of China, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the parent company only financial statements for the year ended December 31, 2017. These matters were addressed in the context of our audit of the parent company only financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matters for the Company's parent company only financial statements for the year ended December 31, 2017 are stated as follows:

Provision for sales returns and allowances

In consideration of business volume and market conditions, the Company provides a variety of business incentives to specific customers or products. The provision for sales returns and allowance is based on historical experience and the varying contractual terms. Please refer to Notes 4, 5 and 17 to the parent company only financial statements for the details of the information about provision for sales returns and allowances. Since the provision for sales returns and allowances is subject to accounting judgment and estimation, and the result could also affect the net revenue in the parent company only financial statements, it has been identified as a key audit matter.

Our key audit procedures performed in respect of the above area included the following:

1. Understood and tested the design and operating effectiveness of the key controls over provision for sales returns and allowances;
2. Understood and assessed the reasonableness of assumptions made and methodology used in estimating provision for sales returns and allowances;
3. Sampled and inspected the sales contracts of main products by agreeing the contractual terms and performed an analysis to challenge the estimation on possibility that specific products could meet business incentives condition to verify the reasonableness of the accrual of the provision;
4. Performed a retrospective review to comparatively analyze the historical accuracy of judgments with reference to actual sales returns and allowance paid.

Timing to commence depreciation of property, plant and equipment (PP&E)

The Company continues to invest in capital expenditures to develop and build capacity in leading-edge technologies to meet customers' demand. Please refer to Notes 4 and 13 to the parent company only financial statements for the details of the information and accounting policy about the depreciation of PP&E. According to International Accounting Standards 16, depreciation of PP&E should commence when the assets are available for their intended use. Due to the significant capital expenditures incurred by the Company, the appropriateness of the timing to commence depreciation of PP&E could have a material impact on its financial performance. Consequently, the validity of the timing to commence depreciation of PP&E is identified as a key audit matter.

Our key audit procedures performed in respect of the above area included the following:

1. Understood and tested the design and operating effectiveness of the key controls over the timing to commence depreciation of PP&E;
2. Understood the criteria the assets are defined as available for their intended use and the corresponding accounting treatments;
3. Sampled and reviewed the appropriateness of the timing for commencing depreciation after the assets met the criteria of available for use in current year;
4. Performed an observation on the physical count of equipment under installation and construction in progress; sampled and inspected the supporting documentation to verify that the status of equipment under installation and construction in progress are not available for use;
5. Sampled equipment under installation and construction in progress which met the criteria of available for use and were transferred in the subsequent period to evaluate the reasonableness of the timing for commencing depreciation;
6. Sampled and reviewed the appropriateness of the equipment under installation and construction in progress which are not available for their intended use.

Responsibilities of Management and Those Charged with Governance for the Parent Company Only Financial Statements

Management is responsible for the preparation and fair presentation of the parent company only financial statements in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers, and for such internal control as management determines is necessary to enable the preparation of parent company only financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the parent company only financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance (including members of the Audit Committee) are responsible for overseeing the Company's financial reporting process.

Auditors' Responsibilities for the Audit of the Parent Company Only Financial Statements

Our objectives are to obtain reasonable assurance about whether the parent company only financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the auditing standards generally accepted in the Republic of China will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these parent company only financial statements.

As part of an audit in accordance with the auditing standards generally accepted in the Republic of China, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

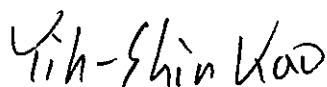
1. Identify and assess the risks of material misstatement of the parent company only financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
2. Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
3. Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
4. Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the parent company only financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Company to cease to continue as a going concern.
5. Evaluate the overall presentation, structure and content of the parent company only financial statements, including the disclosures, and whether the parent company only financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
6. Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Company to express an opinion on the parent company only financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the parent company only financial statements for the year ended December 31, 2017 and are therefore the key audit matters. We describe these matters in our auditors' report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partners on the audit resulting in this independent auditors' report are Yih-Shin Kao and Yu Feng Huang.



Deloitte & Touche
Taipei, Taiwan
Republic of China

February 13, 2018

Notice to Readers

The accompanying financial statements are intended only to present the financial position, financial performance and cash flows in accordance with accounting principles and practices generally accepted in the Republic of China and not those of any other jurisdictions. The standards, procedures and practices to audit such financial statements are those generally applied in the Republic of China.

For the convenience of readers, the independent auditors' report and the accompanying financial statements have been translated into English from the original Chinese version prepared and used in the Republic of China. If there is any conflict between the English version and the original Chinese version or any difference in the interpretation of the two versions, the Chinese-language independent auditors' report and financial statements shall prevail.

Taiwan Semiconductor Manufacturing Company Limited

PARENT COMPANY ONLY BALANCE SHEETS (In Thousands of New Taiwan Dollars)

ASSETS	December 31, 2017		December 31, 2016	
	Amount	%	Amount	%
CURRENT ASSETS				
Cash and cash equivalents (Note 6)	\$ 239,176,841	12	\$ 249,878,563	14
Financial assets at fair value through profit or loss (Note 7)	373,351	-	151,070	-
Available-for-sale financial assets	2,393,555	-	2,843,952	-
Held-to-maturity financial assets (Note 8)	-	-	11,447,538	1
Hedging derivative financial assets (Note 9)	7,378	-	-	-
Notes and accounts receivable, net (Note 10)	26,655,427	2	40,017,297	2
Receivables from related parties (Note 32)	92,141,837	5	86,845,570	5
Other receivables from related parties (Note 32)	3,143,872	-	948,800	-
Inventories (Notes 5, 11 and 35)	70,297,445	4	46,504,346	2
Other financial assets (Note 35)	94,839	-	2,139,366	-
Other current assets (Note 15)	2,484,792	-	3,004,662	-
Total current assets	436,769,337	23	443,781,164	24
NONCURRENT ASSETS				
Financial assets carried at cost	415,051	-	435,268	-
Investments accounted for using equity method (Notes 5 and 12)	463,986,364	24	396,855,708	22
Property, plant and equipment (Notes 5 and 13)	1,016,355,970	52	979,401,337	53
Intangible assets (Notes 5 and 14)	9,870,127	-	10,047,991	1
Deferred income tax assets (Notes 5 and 27)	10,829,473	1	6,446,781	-
Refundable deposits	1,163,069	-	369,895	-
Total noncurrent assets	1,502,620,054	77	1,393,556,980	76
TOTAL	\$ 1,939,389,391	100	\$ 1,837,338,144	100
LIABILITIES AND EQUITY				
CURRENT LIABILITIES				
Short-term loans (Note 16)	\$ 63,766,850	3	\$ 57,958,200	3
Financial liabilities at fair value through profit or loss (Note 7)	18,764	-	62,441	-
Hedging derivative financial liabilities (Note 9)	15,562	-	-	-
Accounts payable	25,605,223	1	24,533,924	1
Payables to related parties (Note 32)	4,829,664	-	4,840,001	-
Salary and bonus payable	12,283,321	1	11,570,505	1
Accrued profit sharing bonus to employees and compensation to directors (Notes 21 and 29)	23,388,002	1	22,794,771	1
Payables to contractors and equipment suppliers	50,363,976	3	62,449,143	4
Income tax payable (Notes 5 and 27)	32,950,667	2	40,256,148	2
Provisions (Notes 5 and 17)	13,174,825	1	16,991,612	1
Long-term liabilities - current portion (Note 18)	24,300,000	1	38,100,000	2
Accrued expenses and other current liabilities (Note 20)	57,686,386	3	28,620,469	2
Total current liabilities	308,383,240	16	308,177,214	17
NONCURRENT LIABILITIES				
Bonds payable (Note 18)	91,800,000	5	116,100,000	6
Deferred income tax liabilities (Notes 5 and 27)	302,205	-	141,183	-
Net defined benefit liability (Notes 5 and 19)	8,850,704	1	8,551,408	-
Guarantee deposits (Note 20)	7,582,479	-	14,666,542	1
Others	413,230	-	453,536	-
Total noncurrent liabilities	108,948,618	6	139,912,669	7
Total liabilities	417,331,858	22	448,089,883	24
EQUITY ATTRIBUTABLE TO SHAREHOLDERS OF THE PARENT				
Capital stock (Note 21)	259,303,805	13	259,303,805	14
Capital surplus (Note 21)	56,309,536	3	56,272,304	3
Retained earnings (Note 21)				
Appropriated as legal capital reserve	241,722,663	12	208,297,945	12
Unappropriated earnings	991,639,347	51	863,710,224	47
	1,233,362,010	63	1,072,008,169	59
Others (Note 21)	(26,917,818)	(1)	1,663,983	-
Total equity	1,522,057,533	78	1,389,248,261	76
TOTAL	\$ 1,939,389,391	100	\$ 1,837,338,144	100

The accompanying notes are an integral part of the parent company only financial statements.

Taiwan Semiconductor Manufacturing Company Limited

PARENT COMPANY ONLY STATEMENTS OF COMPREHENSIVE INCOME (In Thousands of New Taiwan Dollars, Except Earnings Per Share)

	2017		2016	
	Amount	%	Amount	%
NET REVENUE (Notes 5, 22 and 32)	\$ 969,136,109	100	\$ 936,387,291	100
COST OF REVENUE (Notes 5, 11, 29, 32 and 35)	<u>490,196,856</u>	<u>51</u>	<u>474,552,913</u>	<u>51</u>
GROSS PROFIT BEFORE UNREALIZED GROSS PROFIT ON SALES TO SUBSIDIARIES AND ASSOCIATES	478,939,253	49	461,834,378	49
UNREALIZED GROSS PROFIT ON SALES TO SUBSIDIARIES AND ASSOCIATES	<u>(1,562)</u>	<u>-</u>	<u>(26,082)</u>	<u>-</u>
GROSS PROFIT	<u>478,937,691</u>	<u>49</u>	<u>461,808,296</u>	<u>49</u>
OPERATING EXPENSES (Notes 5, 29, and 32)				
Research and development	79,887,723	8	70,366,179	8
General and administrative	20,049,405	2	18,697,463	2
Marketing	<u>3,048,781</u>	<u>1</u>	<u>3,098,086</u>	<u>-</u>
Total operating expenses	<u>102,985,909</u>	<u>11</u>	<u>92,161,728</u>	<u>10</u>
OTHER OPERATING INCOME AND EXPENSES, NET (Notes 23 and 29)	<u>(1,261,665)</u>	<u>-</u>	<u>83,965</u>	<u>-</u>
INCOME FROM OPERATIONS	<u>374,690,117</u>	<u>38</u>	<u>369,730,533</u>	<u>39</u>
NON-OPERATING INCOME AND EXPENSES				
Share of profits of subsidiaries and associates (Note 12)	18,757,236	2	14,941,372	2
Other income (Note 24)	1,696,595	-	1,816,803	-
Foreign exchange gain (loss), net (Note 36)	(670,371)	-	609,345	-
Finance costs (Note 25)	(2,749,640)	-	(2,643,193)	-
Other gains and losses, net (Note 26)	<u>1,592,239</u>	<u>-</u>	<u>734,100</u>	<u>-</u>
Total non-operating income and expenses	<u>18,626,059</u>	<u>2</u>	<u>15,458,427</u>	<u>2</u>
INCOME BEFORE INCOME TAX	393,316,176	40	385,188,960	41
INCOME TAX EXPENSE (Notes 5 and 27)	<u>50,204,700</u>	<u>5</u>	<u>50,941,780</u>	<u>5</u>
NET INCOME	<u>343,111,476</u>	<u>35</u>	<u>334,247,180</u>	<u>36</u>

(Continued)

Taiwan Semiconductor Manufacturing Company Limited

PARENT COMPANY ONLY STATEMENTS OF COMPREHENSIVE INCOME (In Thousands of New Taiwan Dollars, Except Earnings Per Share)

	2017		2016	
	Amount	%	Amount	%
OTHER COMPREHENSIVE INCOME (LOSS) (Notes 12, 19, 21 and 27)				
Items that will not be reclassified subsequently to profit or loss:				
Remeasurement of defined benefit obligation	\$ (254,681)	-	\$ (1,057,220)	-
Share of other comprehensive loss of subsidiaries and associates	(20,853)	-	(19,961)	-
Income tax benefit related to items that will not be reclassified subsequently	<u>30,562</u>	-	<u>126,867</u>	-
	<u>(244,972)</u>	-	<u>(950,314)</u>	-
Items that may be reclassified subsequently to profit or loss:				
Exchange differences arising on translation of foreign operations	(28,270,770)	(3)	(9,439,776)	(1)
Changes in fair value of available-for-sale financial assets	(425,692)	-	47,506	-
Cash flow hedges	4,683	-	-	-
Share of other comprehensive income (loss) of subsidiaries and associates	123,804	-	(656,684)	-
Income tax expense related to items that may be reclassified subsequently	<u>(3,536)</u>	-	<u>(61,176)</u>	-
	<u>(28,571,511)</u>	<u>(3)</u>	<u>(10,110,130)</u>	<u>(1)</u>
Other comprehensive loss for the year, net of income tax	<u>(28,816,483)</u>	<u>(3)</u>	<u>(11,060,444)</u>	<u>(1)</u>
TOTAL COMPREHENSIVE INCOME FOR THE YEAR	<u>\$ 314,294,993</u>	<u>32</u>	<u>\$ 323,186,736</u>	<u>35</u>
EARNINGS PER SHARE (NT\$, Note 28)				
Basic earnings per share	<u>\$ 13.23</u>		<u>\$ 12.89</u>	
Diluted earnings per share	<u>\$ 13.23</u>		<u>\$ 12.89</u>	

The accompanying notes are an integral part of the parent company only financial statements. (Concluded)

Taiwan Semiconductor Manufacturing Company Limited

PARENT COMPANY ONLY STATEMENTS OF CHANGES IN EQUITY
(In Thousands of New Taiwan Dollars, Except Dividends Per Share)

	Capital Stock - Common Stock		Capital Surplus		Legal Reserve		Retained Earnings		Total		Others				Total Equity
	Shares (In Thousands)	Amount	Capital Surplus	Legal Reserve	Unappropriated Earnings	Total	Foreign Currency Translation Reserve	Unrealized Gain/Loss from Available-for-sale Financial Assets	Cash Flow Hedges Reserve	Unearned Stock-based Employee Compensation	Total				
BALANCE, JANUARY 1, 2016	25,930,380	\$ 259,303,805	\$ 56,309,215	\$ 177,640,561	\$ 716,653,025	\$ 894,293,586	\$ 11,039,949	\$ 734,771	\$ (607)	\$ -	\$ 11,774,113				\$ 1,221,071,719
Appropriations of prior year's earnings	-	-	-	30,657,384	(30,657,384)	-	-	-	-	-	-	-	-	-	-
Legal capital reserve	-	-	-	(155,582,283)	(155,582,283)	(155,582,283)	-	-	-	-	-	-	-	-	(155,582,283)
Cash dividends to shareholders - NTS\$ per share	-	-	-	(186,239,667)	(186,239,667)	(186,239,667)	-	-	-	-	-	-	-	-	(155,582,283)
Total	-	-	-	30,657,384	(186,239,667)	(155,582,283)	-	-	-	-	-	-	-	-	334,247,180
Net income in 2016	-	-	-	-	334,247,180	334,247,180	-	-	-	-	-	-	-	-	334,247,180
Other comprehensive income (loss) in 2016, net of income tax	-	-	-	(950,314)	(950,314)	(950,314)	(9,378,712)	(732,130)	712	-	(10,110,130)	-	-	-	(11,060,444)
Total comprehensive income (loss) in 2016	-	-	-	(950,314)	(950,314)	(950,314)	(9,378,712)	(732,130)	712	-	(10,110,130)	-	-	-	(11,060,444)
Disposal of investments accounted for using equity method	-	-	(56,169)	-	-	-	-	-	-	-	-	-	-	-	(56,169)
Adjustments to share of changes in equities of associates	-	-	21,221	-	-	-	-	-	-	-	-	-	-	-	21,221
From share of changes in equities of subsidiaries	-	-	7,037	-	-	-	-	-	-	-	-	-	-	-	7,037
BALANCE, DECEMBER 31, 2016	25,930,380	\$ 259,303,805	\$ 56,272,304	\$ 208,297,945	\$ 863,710,224	\$ 1,072,008,169	\$ 1,661,237	\$ 2,641	\$ 105	\$ -	\$ 1,663,983				\$ 1,389,248,261
Appropriations of prior year's earnings	-	-	-	33,424,718	(33,424,718)	-	-	-	-	-	-	-	-	-	-
Legal capital reserve	-	-	-	(181,512,663)	(181,512,663)	(181,512,663)	-	-	-	-	-	-	-	-	(181,512,663)
Cash dividends to shareholders - NTS\$ per share	-	-	-	(214,937,581)	(214,937,581)	(214,937,581)	-	-	-	-	-	-	-	-	(181,512,663)
Total	-	-	-	33,424,718	(214,937,581)	(181,512,663)	-	-	-	-	-	-	-	-	343,111,476
Net income in 2017	-	-	-	-	343,111,476	343,111,476	-	-	-	-	-	-	-	-	343,111,476
Other comprehensive income (loss) in 2017, net of income tax	-	-	-	(244,972)	(244,972)	(244,972)	(28,358,917)	(216,715)	4,121	-	(28,571,511)	-	-	-	(28,816,483)
Total comprehensive income (loss) in 2017	-	-	-	(244,972)	(244,972)	(244,972)	(28,358,917)	(216,715)	4,121	-	(28,571,511)	-	-	-	314,294,993
Adjustments to share of changes in equities of associates	-	-	7,085	-	-	-	-	-	-	(10,290)	(10,290)	-	-	-	(3,205)
From share of changes in equities of subsidiaries	-	-	10,994	-	-	-	-	-	-	-	-	-	-	-	10,994
Donation from shareholders	-	-	19,153	-	-	-	-	-	-	-	-	-	-	-	19,153
BALANCE, DECEMBER 31, 2017	25,930,380	\$ 259,303,805	\$ 56,309,536	\$ 241,722,663	\$ 991,639,347	\$ 1,233,362,010	\$ (26,697,680)	\$ (214,074)	\$ 4,226	\$ (10,290)	\$ (26,917,818)				\$ 1,572,057,533

The accompanying notes are an integral part of the parent company only financial statements.

Taiwan Semiconductor Manufacturing Company Limited

PARENT COMPANY ONLY STATEMENTS OF CASH FLOWS (In Thousands of New Taiwan Dollars)

	2017	2016
CASH FLOWS FROM OPERATING ACTIVITIES		
Income before income tax	\$ 393,316,176	\$ 385,188,960
Adjustments for:		
Depreciation expense	250,597,135	213,977,324
Amortization expense	4,325,028	3,724,066
Finance costs	2,749,640	2,643,193
Share of profits of subsidiaries and associates	(18,757,236)	(14,941,372)
Interest income	(1,554,792)	(1,683,150)
Loss (gain) on disposal or retirement of property, plant and equipment, net	1,008,989	(100,503)
Gain on disposal of intangible assets, net	(3,198)	-
Impairment loss on financial assets	6,137	4,537
Gain on disposal of available-for-sale financial assets, net	(115,690)	(101,411)
Loss on disposal of investments accounted for using equity method, net	-	296,065
Unrealized gross profit on sales to subsidiaries and associates	1,562	26,082
Gain on foreign exchange, net	(9,118,776)	(2,656,406)
Dividend income	(141,803)	(133,653)
Changes in operating assets and liabilities:		
Financial instruments at fair value through profit or loss	(196,337)	(127,857)
Notes and accounts receivable, net	7,253,120	(20,448,337)
Receivables from related parties	(5,296,267)	(29,562,888)
Other receivables from related parties	(733,023)	(493,473)
Inventories	(23,793,099)	17,833,842
Other financial assets	2,029,903	(22,662)
Other current assets	510,739	18,337
Accounts payable	1,275,185	7,639,380
Payables to related parties	(10,337)	1,108,002
Salary and bonus payable	712,816	1,966,597
Accrued profit sharing bonus to employees and compensation to directors	593,231	1,881,697
Accrued expenses and other current liabilities	29,615,847	3,891,345
Provisions	(3,823,540)	7,961,632
Net defined benefit liability	44,615	46,163
Cash generated from operations	630,496,025	577,935,510
Income taxes paid	(61,695,694)	(45,387,724)
Net cash generated by operating activities	<u>568,800,331</u>	<u>532,547,786</u>
CASH FLOWS FROM INVESTING ACTIVITIES		
Acquisitions of:		
Available-for-sale financial assets	-	(172)
Held to maturity financial assets	(1,695,771)	(11,242,766)
Investments accounted for using equity method	-	(445,012)
Equity interest in subsidiary	-	(1,630,700)
Property, plant and equipment	(311,763,999)	(323,009,940)
Intangible assets	(4,351,050)	(4,207,065)

(Continued)

Taiwan Semiconductor Manufacturing Company Limited

NOTES TO PARENT COMPANY ONLY FINANCIAL STATEMENTS FOR THE YEARS ENDED DECEMBER 31, 2017 AND 2016

(Amounts in Thousands of New Taiwan Dollars, Unless Specified Otherwise)

1. GENERAL

Taiwan Semiconductor Manufacturing Company Limited (the “Company” or “TSMC”), a Republic of China (R.O.C.) corporation, was incorporated on February 21, 1987. The Company is a dedicated foundry in the semiconductor industry which engages mainly in the manufacturing, selling, packaging, testing and computer-aided design of integrated circuits and other semiconductor devices and the manufacturing of masks.

On September 5, 1994, the Company’s shares were listed on the Taiwan Stock Exchange (TWSE). On October 8, 1997, the Company listed some of its shares of stock on the New York Stock Exchange (NYSE) in the form of American Depositary Shares (ADSs).

The address of its registered office and principal place of business is No. 8, Li-Hsin Rd. 6, Hsinchu Science Park, Taiwan.

2. THE AUTHORIZATION OF FINANCIAL STATEMENTS

The accompanying parent company only financial statements were approved and authorized for issue by the Board of Directors on February 13, 2018.

3. APPLICATION OF NEW AND REVISED INTERNATIONAL FINANCIAL REPORTING STANDARDS

- a. Initial application of the amendments to the Regulations Governing the Preparation of Financial Reports by Securities Issuers and the International Financial Reporting Standards (IFRS), International Accounting Standards (IAS), IFRIC Interpretations (IFRIC), and SIC Interpretations (SIC) (collectively, “IFRSs”) endorsed and issued into effect by the Financial Supervisory Commission (FSC)

Except for the following, the initial application of the amendments to the Regulations Governing the Preparation of Financial Reports by Securities Issuers and the IFRSs endorsed and issued into effect by the FSC did not have a significant effect on the Company’s accounting policies:

- 1) Amendments to the Regulations Governing the Preparation of Financial Reports by Securities Issuers

The amendments stipulate that other companies or institutions of which the chairman of the board of directors or president serves as the chairman of the board of directors or the president, or is the spouse or second immediate family of the chairman of the board of directors or president of the Company are deemed to have a substantive related party relationship, unless it can be demonstrated that no control, joint control, or significant influence exists. Furthermore, the amendments require the disclosure of the names of the related parties and the relationship with whom the Company has transaction. If the transaction or balance with a specific related party is 10% or more of the Company’s respective total transaction or balance, such transaction should be separately disclosed by the name of each related party.

When the amendments are applied retrospectively from January 1, 2017, the disclosure of related party transactions is enhanced, please refer to Note 32.

- b. The IFRSs issued by International Accounting Standards Board (IASB) and endorsed by FSC with effective date starting 2018

<u>New, Revised or Amended Standards and Interpretations</u>	<u>Effective Date Issued by IASB</u>
Annual Improvements to IFRSs 2014-2016 Cycle	Note 1
Amendment to IFRS 2 “Classification and Measurement of Share-based Payment Transactions”	January 1, 2018
IFRS 9 “Financial Instruments”	January 1, 2018
Amendments to IFRS 9 and IFRS 7 “Mandatory Effective Date of IFRS 9 and Transition Disclosure”	January 1, 2018
IFRS 15 “Revenue from Contracts with Customers”	January 1, 2018
Amendment to IFRS 15 “Clarifications to IFRS 15”	January 1, 2018
Amendment to IAS 7 “Disclosure Initiative”	January 1, 2017
Amendment to IAS 12 “Recognition of Deferred Tax Assets for Unrealized Losses”	January 1, 2017
IFRIC 22 “Foreign Currency Transactions and Advance Consideration”	January 1, 2018

Note 1: The amendment to IFRS 12 is retrospectively applied for annual periods beginning on or after January 1, 2017; the amendment to IAS 28 is retrospectively applied for annual periods beginning on or after January 1, 2018.

Except for the following items, the Company believes that the adoption of aforementioned standards or interpretations will not have a significant effect on the Company’s accounting policies.

- 1) IFRS 9 “Financial Instruments” and related amendments

Classification, measurement and impairment of financial assets

All recognized financial assets currently in the scope of IAS 39, “Financial Instruments: Recognition and Measurement,” will be subsequently measured at either the amortized cost or the fair value. The classification and measurement requirements in IFRS 9 are stated as follows.

The invested equity instruments should be measured at the fair value through profit or loss (FVTPL). However, the entity may irrevocably designate an investment in equity instruments that is not held for trading as measured at fair value through other comprehensive income (FVTOCI). All relevant gains and losses shall be recognized in other comprehensive income, except for dividends which are recognized in profit or loss. No subsequent impairment assessment is required, and the cumulative gain or loss previously recognized in other comprehensive income cannot be reclassified from equity to profit or loss.

IFRS 9 adds a new expected loss impairment model to measure the impairment of financial assets. A loss allowance for expected credit losses should be recognized on financial assets measured at amortized cost. If the credit risk on a financial instrument has not increased significantly since initial recognition, the loss allowance for that financial instrument should be measured at an amount equal to 12-month expected credit losses. If the credit risk on a financial instrument has increased significantly since initial recognition and is not deemed to be a low credit risk, the loss allowance for that financial instrument should be measured at an amount equal to the lifetime expected credit losses. A simplified approach is allowed for accounts receivables and the loss allowance could be measured at an amount equal to lifetime expected credit losses.

The Company elects not to restate prior reporting period when applying the requirements for the classification, measurement and impairment of financial assets and financial liabilities under IFRS 9 with the cumulative effect of the initial application recognized at the date of initial application.

The anticipated impact on measurement categories, carrying amount and related reconciliation for each class of the Company's financial assets and financial liabilities when retrospectively applying IFRS 9 on January 1, 2018 is detailed below:

Financial Assets	Measurement Category		Carrying Amount		Note
	IAS 39	IFRS 9	IAS 39	IFRS 9	
Cash and cash equivalents	Loans and receivables	Amortized cost	\$ 239,176,841	\$ 239,176,841	(1)
Derivatives	Held for trading	Mandatorily at FVTPL	373,351	373,351	
	Hedging instruments	Hedging instruments	7,378	7,378	
Equity securities	Available-for-sale	FVTOCI	2,808,606	3,377,145	(2)
Notes and accounts receivable (including related parties), other receivables and refundable deposits	Loans and receivables	Amortized cost	123,199,044	123,443,817	(1)
Financial Liabilities					
Derivatives	Held for trading	Mandatorily at FVTPL	18,764	18,764	
	Hedging instruments	Hedging instruments	15,562	15,562	
Short-term loans, accounts payable (including related parties), payables to contractors and equipment suppliers, accrued expenses and other current liabilities, bonds payable and guarantee deposits	Amortized cost	Amortized cost	294,856,247	294,856,247	

Financial Assets	Carrying Amount as of December 31, 2017 (IAS 39)	Reclassifi- cations	Remea- surements	Carrying Amount as of January 1, 2018 (IFRS 9)	Retained Earnings Effect on January 1, 2018	Other Equity Effect on January 1, 2018	Note
FVTPL	\$ 373,351	\$ -	\$ -	\$ 373,351	\$ -	\$ -	
FVTOCI	-	-	-	-	-	-	
- Equity instruments							
Add: From available for sale	-	2,808,606	568,539	3,377,145	534,270	34,269	(2)
	-	2,808,606	568,539	3,377,145	534,270	34,269	
Amortized cost	-	-	-	-	-	-	
Add: From loans and receivables	-	362,375,885	244,773	362,620,658	244,773	-	(1)
	-	362,375,885	244,773	362,620,658	244,773	-	
Hedging instruments	7,378	-	-	7,378	-	-	
Total	\$ 380,729	\$ 365,184,491	\$ 813,312	\$ 366,378,532	\$ 779,043	\$ 34,269	

	Carrying Amount as of December 31, 2017 (IAS 39)	Adjustments Arising from Initial Application	Carrying Amount as of January 1, 2018 (IFRS 9)	Retained Earnings Effect on January 1, 2018	Other Equity Effect on January 1, 2018	Note
Investments accounted for using equity method	\$ 463,986,364	\$ 400,137	\$ 464,386,501	\$ 745,247	\$ (345,110)	(3)

(1) Cash and cash equivalents, notes and accounts receivable (including related parties), other receivables and refundable deposits were classified as loans and receivables under IAS 39 are now classified at amortized cost with assessment of future 12-month or lifetime expected credit loss under IFRS 9. As a result of retrospective application, the adjustments for accounts receivable would result in a decrease in loss of allowance of NT\$244,773 thousand and an increase in retained earnings of NT\$244,773 thousand on January 1, 2018.

- (2) As equity investments that were previously classified as available-for-sale financial assets under IAS 39 are not held for trading, the Company elected to designate all of these investments as at FVTOCI under IFRS 9. As a result, the related other equity-unrealized gain/loss on available-for-sale financial assets of NT\$206,015 thousand is reclassified to increase other equity - unrealized gain/loss on financial assets at FVTOCI.

As equity investments previously measured at cost under IAS 39 are remeasured at fair value under IFRS 9, the adjustments would result in an increase in financial assets at FVTOCI of NT\$568,539 thousand and an increase in other equity-unrealized gain/loss on financial assets at FVTOCI of NT\$568,539 thousand on January 1, 2018.

For those equity investments previously classified as available-for-sale financial assets (including measured at cost financial assets) under IAS 39, the impairment losses that the Company had recognized have been accumulated in retained earnings. Since these investments were designated as at FVTOCI under IFRS 9 and no impairment assessment is required, the adjustments would result in a decrease in other equity - unrealized gain/loss on financial assets at FVTOCI of NT\$534,270 thousand and an increase in retained earnings of NT\$534,270 thousand on January 1, 2018.

- (3) With the retrospective adoption of IFRS 9 by associates accounted for using equity method, the corresponding adjustments made by the Company would result in an increase in investments accounted for using equity method of NT\$400,137 thousand, a decrease in other equity-unrealized gain/loss on financial assets at FVTOCI of NT\$765,199 thousand, an increase in other equity- unrealized gain/loss on available-for-sale financial assets of NT\$420,089 thousand and an increase in retained earnings of NT\$745,247 thousand on January 1, 2018.

Hedge accounting

The main changes in hedge accounting amended the application requirements for hedge accounting to better reflect the entity's risk management activities. Compared with IAS 39, the main changes include: (1) enhancing types of transactions eligible for hedge accounting, specifically broadening the risks eligible for hedge accounting of non-financial items; (2) changing the way the hedging cost of derivative instruments are accounted for to reduce profit or loss volatility; and (3) replacing retrospective effectiveness assessment with the principle of economic relationship between the hedging instrument and the hedged item.

A preliminary assessment of the Company's current hedging relationships indicates that they will qualify as continuing hedging relationships under IFRS 9. The Company will prospectively apply the requirements for hedge accounting upon initial application of IFRS 9.

2) IFRS 15 "Revenue from Contracts with Customers" and related amendments

IFRS 15 establishes principles for recognizing revenue that apply to all contracts with customers, and will supersede IAS 18 "Revenue," IAS 11 "Construction Contracts," and a number of revenue-related interpretations.

When applying IFRS 15, the Company shall recognize revenue by applying the following steps:

- Identify the contract with the customer;
- Identify the performance obligations in the contract;
- Determine the transaction price;
- Allocate the transaction price to the performance obligations in the contract; and
- Recognize revenue when the entity satisfies a performance obligation.

The Company elects only to retrospectively apply IFRS 15 to contracts that were not completed on January 1, 2018 and elects not to restate prior reporting period with the cumulative effect of the initial application recognized at the date of initial application.

The anticipated impact on assets, liabilities and equity when retrospectively applying IFRS 15 on January 1, 2018 is detailed below:

	Carrying Amount as of December 31, 2017 (IAS 18 and revenue-related interpretations)	Adjustments Arising from Initial Application	Carrying Amount as of January 1, 2018 (IFRS 15)	Note
Investments accounted for using equity method	\$ 463,986,364	\$ <u>32,029</u>	\$ 464,018,393	(1)
Total effect on assets		\$ <u>32,029</u>		
Provisions - current	13,174,825	\$ (13,174,825)	-	(2)
Accrued expenses and other current liabilities	57,686,386	<u>13,174,825</u>	70,861,211	(2)
Total effect on liabilities		<u>\$ -</u>		
Retained earnings	1,233,362,010	\$ <u>32,029</u>	1,233,394,039	(1)
Total effect on equity		<u>\$ 32,029</u>		

(1) Prior to the application of IFRS 15, the Company recognizes revenue based on the accounting treatment of the sales of goods. Under IFRS 15, certain subsidiaries and associates accounted for using equity method will change to recognize revenue over time because customers are deemed to have control over the products when the products are manufactured. As a result, the Company will adjust related investments and equity accordingly.

(2) Prior to the application of IFRS 15, the Company recognized the estimation of sales returns and allowance as provisions. Under IFRS 15, the Company recognizes such estimation as refund liability (classified under accrued expenses and other current liabilities).

Except for the aforementioned impact, as of the date the accompanying parent company only financial statements were authorized for issue, the Company continues in evaluating the impact on its financial position and financial performance as a result of the initial adoption of the other standards or interpretations. The related impact will be disclosed when the Company completes the evaluation.

- c. The IFRSs issued by IASB but not yet endorsed and issued into effect by FSC

<u>New, Revised or Amended Standards and Interpretations</u>	<u>Effective Date Issued by IASB</u>
Annual Improvements to IFRSs 2015-2017 Cycle	January 1, 2019
Amendments to IFRS 9 “Prepayment Features with Negative Compensation”	January 1, 2019
Amendments to IFRS 10 and IAS 28 “Sale or Contribution of Assets between an Investor and its Associate or Joint Venture”	To be determined by IASB

(Continued)

New, Revised or Amended Standards and Interpretations	Effective Date Issued by IASB
IFRS 16 “Leases”	January 1, 2019 (Note 2)
Amendments to IAS 19 “Plan Amendment, Curtailment or Settlement”	January 1, 2019
Amendments to IAS 28 “Long-term Interests in Associates and Joint Ventures”	January 1, 2019
IFRIC 23 “Uncertainty over Income Tax Treatments”	January 1, 2019 (Concluded)

Note 2: On December 19, 2017, the FSC announced that IFRS 16 will take effect starting January 1, 2019.

Except for the following items, the Company believes that the adoption of aforementioned standards or interpretations will not have a significant effect on the Company’s accounting policies.

1) IFRS 16 “Leases”

IFRS 16 sets out the accounting standards for leases that will supersede IAS 17 and a number of related interpretations.

Under IFRS 16, if the Company is a lessee, it shall recognize right-of-use assets and lease liabilities for all leases on the parent company only balance sheets except for low-value and short-term leases. The Company may elect to apply the accounting method similar to the accounting for operating lease under IAS 17 to the low-value and short-term leases. On the parent company only statements of comprehensive income, the Company should present the depreciation expense charged on the right-of-use asset separately from interest expense accrued on the lease liability; interest is computed by using effective interest method. On the parent company only statements of cash flows, cash payments for both the principal and interest portion of the lease liability are classified within financing activities.

When IFRS 16 becomes effective, the Company may elect to apply this Standard either retrospectively to each prior reporting period presented or retrospectively with the cumulative effect of the initial application of this Standard recognized at the date of initial application.

Except for the aforementioned impact, as of the date the accompanying parent company only financial statements were authorized for issue, the Company continues in evaluating the impact on its financial position and financial performance as a result of the initial adoption of the other standards or interpretations. The related impact will be disclosed when the Company completes the evaluation.

4. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

For the convenience of readers, the accompanying parent company only financial statements have been translated into English from the original Chinese version prepared and used in the R.O.C. If there is any conflict between the English version and the original Chinese version or any difference in the interpretation of the two versions, the Chinese-language parent company only financial statements shall prevail.

Statement of Compliance

The accompanying parent company only financial statements have been prepared in conformity with the Regulations Governing the Preparation of Financial Reports by Securities Issuers (the “Accounting Standards Used in Preparation of the Parent Company Only Financial Statements”).

Basis of Preparation

The accompanying parent company only financial statements have been prepared on the historical cost basis except for financial instruments that are measured at fair values, as explained in the accounting policies below. Historical cost is generally based on the fair value of the consideration given in exchange for the assets.

When preparing the parent company only financial statements, the Company account for subsidiaries and associates by using the equity method. In order to agree with the amount of net income, other comprehensive income and equity attributable to shareholders of the parent in the consolidated financial statements, the differences of the accounting treatment between the parent company only basis and the consolidated basis are adjusted under the heading of investments accounted for using equity method, share of profits of subsidiaries and associates and share of other comprehensive income of subsidiaries and associates in the parent company only financial statements.

Foreign Currencies

In preparing the parent company only financial statements, transactions in currencies other than the entity's functional currency (foreign currencies) are recognized at the rates of exchange prevailing at the dates of the transactions. At the end of each reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at that date. Such exchange differences are recognized in profit or loss in the year in which they arise. Non-monetary items measured at fair value that are denominated in foreign currencies are retranslated at the rates prevailing at the date when the fair value was determined. Exchange differences arising on the retranslation of non-monetary items are included in profit or loss for the year except for exchange differences arising on the retranslation of non-monetary items in respect of which gains and losses are recognized directly in other comprehensive income, in which case, the exchange differences are also recognized directly in other comprehensive income. Non-monetary items that are measured in terms of historical cost in foreign currencies are not retranslated.

For the purposes of presenting parent company only financial statements, the assets and liabilities of the Company's foreign operations are translated into NT\$ using exchange rates prevailing at the end of each reporting period. Income and expense items are translated at the average exchange rates for the period. Exchange differences arising, if any, are recognized in other comprehensive income and accumulated in equity.

Classification of Current and Noncurrent Assets and Liabilities

Current assets are assets held for trading purposes and assets expected to be converted to cash, sold or consumed within one year from the end of the reporting period. Current liabilities are obligations incurred for trading purposes and obligations expected to be settled within one year from the end of the reporting period. Assets and liabilities that are not classified as current are noncurrent assets and liabilities, respectively.

Cash Equivalents

Cash equivalents, for the purpose of meeting short-term cash commitments, consist of highly liquid time deposits and investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value.

Financial Instruments

Financial assets and liabilities shall be recognized when the Company becomes a party to the contractual provisions of the instruments.

Financial assets and liabilities are initially recognized at fair values. Transaction costs that are directly attributable to the acquisition or issue of financial assets and financial liabilities (other than financial assets and financial liabilities at fair value through profit or loss) are added to or deducted from the fair value of the financial assets or financial liabilities, as appropriate, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities at fair value through profit or loss are recognized immediately in profit or loss.

Financial Assets

Financial assets are classified into the following specified categories: Financial assets “at FVTPL”, “held-to-maturity” financial assets, “available-for-sale” financial assets and “loans and receivables”. The classification depends on the nature and purpose of the financial assets and is determined at the time of initial recognition. Regular way purchases or sales of financial assets are recognized and derecognized on a trade date or settlement date basis for which financial assets were classified in the same way, respectively. Regular way purchases or sales are purchases or sales of financial assets that require delivery of assets within the time frame established by regulation or convention in the marketplace.

Financial assets at fair value through profit or loss

Financial assets are classified as at fair value through profit or loss when the financial asset is either held for trading or it is designated as at fair value through profit or loss.

Financial assets at fair value through profit or loss are stated at fair value, with any gains or losses arising on remeasurement recognized in profit or loss.

Held-to-maturity financial assets

Held-to-maturity investments are non-derivative financial assets with fixed or determinable payments and fixed maturity dates that the Company has the positive intent and ability to hold to maturity. Subsequent to initial recognition, held-to-maturity financial assets are measured at amortized cost using the effective interest method less any impairment.

Available-for-sale financial assets

Available-for-sale financial assets are non-derivative financial assets that are either designated as available-for-sale or are not classified as (a) loans and receivables, (b) held-to-maturity financial assets or (c) financial assets at fair value through profit or loss.

Available-for-sale financial assets are measured at fair value. Interest income from available-for-sale monetary financial assets and dividends on available-for-sale equity investments are recognized in profit or loss. Other changes in the carrying amount of available-for-sale financial assets are recognized in other comprehensive income. When the investment is disposed of or is determined to be impaired, the cumulative gain or loss previously recognized in other comprehensive income is reclassified to profit or loss.

Dividends on available-for-sale equity instruments are recognized in profit or loss when the Company’s right to receive the dividends is established.

Available-for-sale equity instruments that do not have a quoted market price in an active market and whose fair value cannot be reliably measured are measured at cost less any identified impairment losses at the end of each reporting period. Such equity instruments are subsequently remeasured at fair value when their fair value can be reliably measured, and the difference between the carrying amount and fair value is recognized in profit or loss or other comprehensive income.

Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. Loans and receivables including cash and cash equivalents, notes and accounts receivable and other receivables are measured at amortized cost using the effective interest method, less any impairment, except for those loans and receivables with immaterial discounted effect.

Impairment of financial assets

Financial assets, other than those carried at FVTPL, are assessed for indicators of impairment at the end of each reporting period. Those financial assets are considered to be impaired when there is objective evidence that, as a result of one or more events that occurred after the initial recognition of the financial assets, their estimated future cash flows have been affected.

For financial assets carried at amortized cost, such as trade receivables, assets that are assessed not to be impaired individually are, in addition, assessed for impairment on a collective basis. The Company assesses the collectability of receivables by performing the account aging analysis and examining current trends in the credit quality of its customers.

For financial assets carried at amortized cost, the amount of the impairment loss is the difference between the asset's carrying amount and the present value of estimated future cash flows, discounted at the financial asset's original effective interest rate.

For financial assets measured at amortized cost, if, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment loss was recognized, the previously recognized impairment loss is reversed through profit or loss to the extent that the carrying amount of the financial assets at the date the impairment loss is reversed does not exceed what the amortized cost would have been had the impairment loss not been recognized.

When an available-for-sale financial asset is considered to be impaired, cumulative gains or losses previously recognized in other comprehensive income are reclassified to profit or loss in the year.

In respect of available-for-sale equity instruments, impairment losses previously recognized in profit or loss are not reversed through profit or loss. Any increase in fair value subsequent to the recognition of an impairment loss is recognized in other comprehensive income and accumulated under the heading of unrealized gains or losses from available-for-sale financial assets.

For financial assets carried at cost, the amount of the impairment loss is measured as the difference between the asset's carrying amount and the present value of the estimated future cash flows discounted at the current market rate of return for a similar financial asset. Such impairment loss will not be reversed in subsequent periods.

The carrying amount of the financial asset is reduced by the impairment loss directly for all financial assets with the exception of trade receivables, where the carrying amount is reduced through the use of an allowance account. When a trade receivable is considered uncollectible, it is written off against the allowance account. Subsequent recoveries of amounts previously written off are credited against the allowance account.

Derecognition of financial assets

The Company derecognizes a financial asset only when the contractual rights to the cash flows from the financial asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the financial asset to another entity.

On derecognition of a financial asset in its entirety, the difference between the financial asset's carrying amount and the sum of the consideration received and receivable and the cumulative gain or loss that had been recognized in other comprehensive income and accumulated in equity is recognized in profit or loss.

Financial Liabilities and Equity Instruments

Classification as debt or equity

Debt and equity instruments issued by the Company are classified as either financial liabilities or as equity in accordance with the substance of the contractual arrangements and the definitions of a financial liability and an equity instrument.

Equity instruments

An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities. Equity instruments issued by the Company are recognized at the proceeds received, net of direct issue costs.

Financial liabilities

Financial liabilities are subsequently measured either at amortized cost using effective interest method or at FVTPL.

Financial liabilities are classified as at fair value through profit or loss when the financial liability is either held for trading or is designated as at fair value through profit or loss.

Financial liabilities at fair value through profit or loss are stated at fair value, with any gains or losses arising on remeasurement recognized in profit or loss.

Financial liabilities other than those held for trading purposes and designated as at FVTPL are subsequently measured at amortized cost at the end of each reporting period.

Derecognition of financial liabilities

The Company derecognizes financial liabilities when, and only when, the Company's obligations are discharged, cancelled or they expire. The difference between the carrying amount of the financial liability derecognized and the consideration paid and payable is recognized in profit or loss.

Derivative Financial Instruments

Derivative financial instruments are initially recognized at fair value at the date the derivative contracts are entered into and are subsequently remeasured to their fair value at the end of each reporting period. The resulting gain or loss is recognized in profit or loss immediately unless the derivative financial instrument is designated and effective as a hedging instrument, in which event the timing of the recognition in profit or loss depends on the nature of the hedge relationship.

Financial Instruments Designated as at Fair Value through Profit or Loss

A financial instrument may be designated as at FVTPL upon initial recognition. The financial instrument forms part of a group of financial assets or financial liabilities or both, which is managed and its performance is evaluated on a fair value basis, in accordance with the Company's documented risk management or investment strategy, and information about the grouping is provided internally on that basis.

Hedge Accounting

Cash Flow Hedge

The Company designates certain hedging instruments, such as forward exchange contracts, to partially hedge its foreign exchange rate risks associated with certain highly probable forecast transactions, such as capital expenditures. The effective portion of changes in the fair value of hedging instruments is recognized in other comprehensive income. When the forecast transactions actually take place, the associated gains or losses that were recognized in other comprehensive income are removed from equity and included in the initial cost of the hedged items. The gains or losses from hedging instruments relating to the ineffective portion are recognized immediately in profit or loss.

Hedge accounting is discontinued prospectively when the Company revokes the designated hedging relationship, or when the hedging instruments expire or are sold, terminated, or exercised, or no longer meet the criteria for hedge accounting.

Inventories

Inventories are stated at the lower of cost or net realizable value. Inventories are recorded at standard cost and adjusted to approximate weighted-average cost at the end of the reporting period. Net realizable value represents the estimated selling price of inventories less all estimated costs of completion and costs necessary to make the sale.

Investments Accounted for Using Equity Method

Investments accounted for using the equity method include investments in subsidiaries and associates.

Investment in subsidiaries

A subsidiary is an entity that is controlled by the Company.

Under the equity method, an investment in a subsidiary is initially recognized at cost and adjusted thereafter to recognize the Company's share of profit or loss and other comprehensive income of the subsidiary as well as the distribution received. The Company also recognized its share in the changes in the equity of subsidiaries.

Changes in the Company's ownership interests in subsidiaries that do not result in the Company losing control over the subsidiaries are accounted for as equity transactions. Any difference between the carrying amount of the subsidiary and the fair value of the consideration paid or received is recognized directly in equity.

When the Company loses control of a subsidiary, any retained investment of the former subsidiary is measured at the fair value at that date. A gain or loss is recognized in profit or loss and calculated as the difference between (a) the aggregate of the fair value of consideration received and the fair value of any retained interest at the date when control is lost; and (b) the previous carrying amount of the investments in such subsidiary. In addition, the Company shall account for all amounts previously recognized in other comprehensive income in relation to the subsidiary on the same basis as would be required if the subsidiary had directly disposed of the related assets and liabilities.

When the Company transacts with its subsidiaries, profits and losses resulting from the transactions with the subsidiaries are recognized in the Company's parent company only financial statements only to the extent of interests in the subsidiaries that are not owned by the Company.

Investment in associates

An associate is an entity over which the Company has significant influence and that is neither a subsidiary nor a joint venture. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those policies.

The operating results and assets and liabilities of associates are incorporated in these parent company only financial statements using the equity method of accounting. Under the equity method, an investment in an associate is initially recognized in the statement of financial position at cost and adjusted thereafter to recognize the Company's share of profit or loss and other comprehensive income of the associate as well as the distribution received. The Company also recognizes its share in the changes in the equities of associates.

Any excess of the cost of acquisition over the Company's share of the net fair value of the identifiable assets, liabilities and contingent liabilities of an associate recognized at the date of acquisition is recognized as goodwill, which is included within the carrying amount of the investment. Any excess of the Company's share of the net fair value of the identifiable assets, liabilities and contingent liabilities over the cost of acquisition, after reassessment, is recognized immediately in profit or loss.

When necessary, the entire carrying amount of the investment (including goodwill) is tested for impairment as a single asset by comparing its recoverable amount (higher of value in use and fair value less costs to sell) with its carrying amount. Any impairment loss recognized forms part of the carrying amount of the investment. Any reversal of that impairment loss is recognized to the extent that the recoverable amount of the investment subsequently increases.

The Company discontinues the use of the equity method from the date when the Company ceases to have significant influence over an associate. When the Company retains an interest in the former associate, the Company measures the retained interest at fair value at that date. The difference between the carrying amount of the associate at the date the equity method was discontinued, and the fair value of any retained interest and any proceeds from disposing of a part interest in the associate is included in the determination of the gain or loss on disposal of the associate. In addition, the Company shall account for all amounts recognized in other comprehensive income in relation to that associate on the same basis as would be required if the associate had directly disposed of the related assets or liabilities. If the Company's ownership interest in an associate is reduced as a result of disposal, but the investment continues to be an associate, the Company should reclassify to profit or loss only a proportionate amount of the gain or loss previously recognized in other comprehensive income.

When the Company subscribes to additional shares in an associate at a percentage different from its existing ownership percentage, the resulting carrying amount of the investment differs from the amount of the Company's proportionate interest in the net assets of the associate. The Company records such a difference as an adjustment to investments with the corresponding amount charged or credited to capital surplus. If the Company's ownership interest is reduced due to the additional subscription to the shares of associate by other investors, the proportionate amount of the gains or losses previously recognized in other comprehensive income in relation to that associate shall be reclassified to profit or loss on the same basis as would be required if the associate had directly disposed of the related assets or liabilities.

When the Company transacts with an associate, profits and losses resulting from the transactions with the associate are recognized in the Company's parent company only financial statements only to the extent of interests in the associate that are not owned by the Company.

Property, Plant and Equipment

Property, plant and equipment are measured at cost less accumulated depreciation and accumulated impairment. Costs include any incremental costs that are directly attributable to the construction or acquisition of the item of property, plant and equipment.

Properties in the course of construction for production, supply or administrative purposes are carried at cost, less any recognized impairment loss. Such properties are classified to the appropriate categories of property, plant and equipment when completed and ready for intended use. Depreciation of these assets, on the same basis as other property assets, commences when the assets are ready for their intended use.

Depreciation is recognized so as to write off the cost of the assets less their residual values over their useful lives, and it is computed using the straight-line method over the following estimated useful lives: buildings - 10 to 20 years; machinery and equipment - 2 to 5 years; and office equipment - 3 to 5 years. The estimated useful lives, residual values and depreciation method are reviewed at the end of each reporting period, with the effect of any changes in estimates accounted for on a prospective basis. Land is not depreciated.

An item of property, plant and equipment is derecognized upon disposal or when no future economic benefits are expected to arise from the continued use of the assets. Any gain or loss arising on the disposal or retirement of an item of property, plant and equipment is determined as the difference between the sales proceeds and the carrying amount of the asset and is recognized in profit or loss.

Leases

Leases are classified as finance lease whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

The Company as lessor

Rental income from operating leases is recognized on a straight-line basis over the term of the relevant lease.

The Company as lessee

Operating lease payments are recognized as an expense on a straight-line basis over the lease term.

Intangible Assets

Goodwill

Goodwill arising on an acquisition of a business is carried at cost as established at the date of acquisition of the business less accumulated impairment losses, if any.

Other intangible assets

Other separately acquired intangible assets with finite useful lives are carried at cost less accumulated amortization and accumulated impairment losses. Amortization is recognized using the straight-line method over the following estimated useful lives: Technology license fees - the estimated life of the technology or the term of the technology transfer contract; software and system design costs - 3 years or contract period; patent and others - the economic life or contract period. The estimated useful life and amortization method are reviewed at the end of each reporting period, with the effect of any changes in estimate being accounted for on a prospective basis.

Impairment of Tangible and Intangible Assets

Goodwill

Goodwill is not amortized and instead is tested for impairment annually, or more frequently when there is an indication that the cash generating unit may be impaired. For the purpose of impairment testing, goodwill is allocated to each of the Company's cash generating units or groups of cash-generating units that are expected to benefit. If the recoverable amount of a cash generating unit is less than its carrying

amount, the difference is allocated first to reduce the carrying amount of any goodwill allocated to such cash-generating unit and then to the other assets of the cash generating unit pro rata based on the carrying amount of each asset in the cash generating unit. Any impairment loss for goodwill is recognized directly in profit or loss. An impairment loss recognized for goodwill is not reversed in subsequent periods.

Other tangible and intangible assets

At the end of each reporting period, the Company reviews the carrying amounts of its tangible and intangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss. When it is not possible to estimate the recoverable amount of an individual asset, the Company estimates the recoverable amount of the cash-generating unit to which the asset belongs. When a reasonable and consistent basis of allocation can be identified, corporate assets are also allocated to individual cash-generating units, or otherwise they are allocated to the smallest group of cash-generating units for which a reasonable and consistent allocation basis can be identified.

Recoverable amount is the higher of fair value less costs to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset or cash-generating unit is estimated to be less than its carrying amount, the carrying amount of the asset or cash-generating unit is reduced to its recoverable amount. An impairment loss is recognized immediately in profit or loss.

When an impairment loss subsequently reverses, the carrying amount of the asset or a cash-generating unit is increased to the revised estimate of its recoverable amount, but the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognized for the asset or cash-generating unit in prior years. A reversal of an impairment loss is recognized immediately in profit or loss.

Provision

Provisions are recognized when the Company has a present obligation (legal or constructive) as a result of a past event, it is probable that the Company will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation.

The amount recognized as a provision is the best estimate of the consideration required to settle the present obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation. When a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of those cash flows.

Guarantee Deposit

Guarantee deposit mainly consists of cash received under deposit agreements with customers to ensure they have access to the Company's specified capacity; and as guarantee of accounts receivable to ensure payment from customers. Cash received from customers is recorded as guarantee deposit upon receipt. Guarantee deposits are refunded to customers when terms and conditions set forth in the deposit agreements have been satisfied.

Revenue Recognition

Revenue is measured at the fair value of the consideration received or receivable. Revenue is reduced for estimated customer returns, rebates and other similar allowances.

Sale of goods

Revenue from the sale of goods is recognized when the goods are delivered and titles have passed, at which time all the following conditions are satisfied:

- The Company has transferred to the buyer the significant risks and rewards of ownership of the goods;
- The Company retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold;
- The amount of revenue can be measured reliably;
- It is probable that the economic benefits associated with the transaction will flow to the Company; and
- The costs incurred or to be incurred in respect of the transaction can be measured reliably.

In principle, payment term granted to customers is due 30 days from the invoice date or 30 days from the end of the month of when the invoice is issued. Due to the short term nature of the receivables from sale of goods with the immaterial discounted effect, the Company measures them at the original invoice amounts without discounting.

Royalties, dividend and interest income

Revenue from royalties is recognized on an accrual basis in accordance with the substance of the relevant agreement, provided that it is probable that the economic benefits will flow to the Company and the amount of revenue can be measured reliably.

Dividend income from investments is recognized when the shareholder's right to receive payment has been established, provided that it is probable that the economic benefits will flow to the Company and the amount of income can be measured reliably.

Interest income from a financial asset is recognized when it is probable that the economic benefits will flow to the Company and the amount of income can be measured reliably. Interest income is accrued on a time basis, by reference to the principal outstanding and at the effective interest rate applicable.

Employee Benefits

Short-term employee benefits

Liabilities recognized in respect of short-term employee benefits are measured at the undiscounted amount of the benefits expected to be paid in exchange for service rendered by employees.

Retirement benefits

For defined contribution retirement benefit plans, payments to the benefit plan are recognized as an expense when the employees have rendered service entitling them to the contribution. For defined benefit retirement benefit plans, the cost of providing benefit is recognized based on actuarial calculations.

Defined benefit costs (including service cost, net interest and rereasurement) under the defined benefit retirement benefit plans are determined using the Projected Unit Credit Method. Service cost (including current service cost), and net interest on the net defined benefit liability (asset) are recognized as employee benefits expense in the period they occur. Remeasurement, comprising actuarial gains and losses and the return on plan assets (excluding interest), is recognized in other comprehensive income in the period in which they occur. Remeasurement recognized in other comprehensive income is reflected immediately in retained earnings and will not be reclassified to profit or loss.

Net defined benefit liability represents the actual deficit in the Company's defined benefit plan.

Taxation

Income tax expense represents the sum of the tax currently payable and deferred tax.

Current tax

Income tax on unappropriated earnings is expensed in the year the shareholders approved the appropriation of earnings which is the year subsequent to the year the earnings are generated.

Adjustments of prior years' tax liabilities are added to or deducted from the current year's tax provision.

Deferred tax

Deferred tax is recognized on temporary differences between the carrying amounts of assets and liabilities in the parent company only financial statements and the corresponding tax bases used in the computation of taxable profit. Deferred tax liabilities are generally recognized for all taxable temporary differences. Deferred tax assets are generally recognized for all deductible temporary differences and tax credits for research and development expenses to the extent that it is probable that taxable profits will be available against which those deductible temporary differences can be utilized.

Deferred tax liabilities are recognized for taxable temporary differences associated with investments in subsidiaries and associates, except where the Company is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets arising from deductible temporary differences associated with such investments are only recognized to the extent that it is probable that there will be sufficient taxable profits against which to utilize the benefits of the temporary differences and they are expected to reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the deferred tax asset to be recovered. The deferred tax assets which originally not recognized is also reviewed at the end of each reporting period and recognized to the extent that it is probable that sufficient taxable profits will be available to allow all or part of the deferred tax asset to be recovered.

Deferred tax liabilities and assets are measured at the tax rates that are expected to apply in the year in which the liability is settled or the asset is realized, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period. The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the Company expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

Current and deferred tax for the year

Current and deferred tax are recognized in profit or loss, except when they relate to items that are recognized in other comprehensive income or directly in equity, in which case, the current and deferred tax are also recognized in other comprehensive income or directly in equity, respectively.

Insurance Claim

The Company recognizes insurance claim reimbursement for losses incurred related to disaster damages. Insurance claim reimbursements are recorded, net of any deductible amounts, at the time while there is evidence that the claim reimbursement is virtually certain to be received.

5. CRITICAL ACCOUNTING JUDGMENTS AND KEY SOURCES OF ESTIMATION AND UNCERTAINTY

In the application of the aforementioned Company's accounting policies, the Company is required to make judgments, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the year in which the estimate is revised if the revision affects only that year, or in the year of the revision and future years if the revision affects both current and future years.

Revenue Recognition

The Company recognizes revenue when the conditions described in Note 4 are satisfied. The Company also records a provision for estimated future returns and other allowances in the same period the related revenue is recorded. Provision for estimated sales returns and other allowances is generally made and adjusted based on historical experience and the consideration of varying contractual terms, and the Company periodically reviews the adequacy of the estimation used.

Impairment of Tangible and Intangible Assets Other than Goodwill

In the process of evaluating the potential impairment of tangible and intangible assets other than goodwill, the Company is required to make subjective judgments in determining 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 changes in these estimates based on changed economic conditions or business strategies could result in significant impairment charges or reversal in future years.

Impairment of Goodwill

The assessment of impairment of goodwill requires the Company to make subjective judgment to determine the identified cash-generating units, allocate the goodwill to relevant cash-generating units and estimate the recoverable amount of relevant cash-generating units.

Impairment Assessment on Investment Using Equity Method

The Company assesses the impairment of investments accounted for using the equity method whenever triggering events or changes in circumstances indicate that an investment may be impaired and carrying value may not be recoverable. The Company measures the impairment based on a projected future cash flow of the investees, including the underlying assumptions of sales growth rate and capacity utilization rate formulated by such investees' internal management team. The Company also takes into account market conditions and the relevant industry trends to ensure the reasonableness of such assumptions.

Realization of Deferred Income Tax Assets

Deferred tax assets are recognized to the extent that it is probable that future taxable profits will be available against which those deferred tax assets can be utilized. Assessment of the realization of the deferred tax assets requires the Company's subjective judgment and estimate, including the future revenue growth and profitability, tax holidays, the amount of tax credits can be utilized and feasible tax planning strategies. Any changes in the global economic environment, the industry trends and relevant laws and regulations could result in significant adjustments to the deferred tax assets.

Valuation of Inventory

Inventories are stated at the lower of cost or net realizable value, and the Company uses judgment and estimate to determine the net realizable value of inventory at the end of each reporting period.

Due to the rapid technological changes, the Company estimates the net realizable value of inventory for obsolescence and unmarketable items at the end of reporting period and then writes down the cost of inventories to net realizable value. The net realizable value of the inventory is mainly determined based on assumptions of future demand within a specific time horizon.

Recognition and Measurement of Defined Benefit Plans

Net defined benefit liability and the resulting defined benefit costs under defined benefit pension plans are calculated using the Projected Unit Credit Method. Actuarial assumptions comprise the discount rate, rate of employee turnover, and future salary increase rate. Changes in economic circumstances and market conditions will affect these assumptions and may have a material impact on the amount of the expense and the liability.

6. CASH AND CASH EQUIVALENTS

	December 31, 2017	December 31, 2016
Cash and deposits in banks	\$ 239,176,841	\$ 245,520,074
Repurchase agreements collateralized by corporate bonds	-	2,361,250
Commercial paper	-	1,997,239
	<u>\$ 239,176,841</u>	<u>\$ 249,878,563</u>

Deposits in banks consisted of highly liquid time deposits that were readily convertible to known amounts of cash and were subject to an insignificant risk of changes in value.

7. FINANCIAL ASSETS AND LIABILITIES AT FAIR VALUE THROUGH PROFIT OR LOSS

	December 31, 2017	December 31, 2016
<u>Financial assets</u>		
Held for trading		
Forward exchange contracts	\$ 373,351	\$ 140,094
Cross currency swap contracts	-	10,976
	<u>\$ 373,351</u>	<u>\$ 151,070</u>
<u>Financial liabilities</u>		
Held for trading		
Forward exchange contracts	\$ 18,764	\$ 62,441

The Company entered into derivative contracts to manage exposures due to fluctuations of foreign exchange rates. These derivative contracts did not meet the criteria for hedge accounting. Therefore, the Company did not apply hedge accounting treatment for these derivative contracts.

Outstanding forward exchange contracts consisted of the following:

	Maturity Date	Contract Amount (In Thousands)
<u>December 31, 2017</u>		
Sell NT\$/Buy EUR	January 2018 to February 2018	NT\$6,002,786/EUR169,000
Sell NT\$/Buy JPY	February 2018	NT\$996,294/JPY3,800,000
Sell US\$/Buy NT\$	January 2018	US\$1,643,000/NT\$49,120,205
<u>December 31, 2016</u>		
Sell NT\$/Buy EUR	January 2017	NT\$5,393,329/EUR159,400
Sell NT\$/Buy JPY	January 2017	NT\$7,314,841/JPY26,501,800
Sell US\$/Buy EUR	January 2017	US\$4,180/EUR4,000
Sell US\$/Buy NT\$	January 2017 to February 2017	US\$420,000/NT\$13,531,450

Outstanding cross currency swap contracts consisted of the following:

Maturity Date	Contract Amount (In Thousands)	Range of Interest Rates Paid	Range of Interest Rates Received
<u>December 31, 2016</u>			
January 2017	US\$170,000/NT\$5,487,600	3.98%	-

8. HELD-TO-MATURITY FINANCIAL ASSETS

	December 31, 2016
Commercial paper	\$ 8,628,176
Corporate bonds	<u>2,819,362</u>
	<u>\$ 11,447,538</u>

9. HEDGING DERIVATIVE FINANCIAL INSTRUMENTS

	December 31, 2017
<u>Financial assets- current</u>	
Cash flow hedges	
Forward exchange contracts	<u>\$ 7,378</u>
<u>Financial liabilities- current</u>	
Cash flow hedges	
Forward exchange contracts	<u>\$ 15,562</u>

The Company entered into forward exchange contracts to partially hedge foreign exchange rate risks associated with certain highly probable forecast transactions, such as capital expenditures. These contracts have maturities of 12 months or less.

Outstanding forward exchange contracts consisted of the following:

	Maturity Date	Contract Amount (In Thousands)
<u>December 31, 2017</u>		
Sell NT\$/Buy EUR	February 2018 to May 2018	NT\$2,649,104/EUR75,000

10. NOTES AND ACCOUNTS RECEIVABLE, NET

	December 31, 2017	December 31, 2016
Notes and accounts receivable	\$ 27,124,552	\$ 40,492,727
Allowance for doubtful receivables	<u>(469,125)</u>	<u>(475,430)</u>
Notes and accounts receivable, net	<u>\$ 26,655,427</u>	<u>\$ 40,017,297</u>

In principle, the payment term granted to customers is due 30 days from the invoice date or 30 days from the end of the month of when the invoice is issued. The allowance for doubtful receivables is assessed by reference to the collectability of receivables by performing the account aging analysis, historical experience and current financial condition of customers.

Except for those impaired, for the rest of the notes and accounts receivable, the account aging analysis at the end of the reporting period is summarized in the following table. There was no impairment concern for the accounts receivable that were past due without recognizing a specific allowance for doubtful receivables since there was no significant change in the credit quality of its customers after the assessment. In addition, the Company's subsidiary has obtained guarantee of NT\$2,427,548 thousand against certain receivables.

Aging analysis of notes and accounts receivable, net

	December 31, 2017	December 31, 2016
Neither past due nor impaired	\$ 19,632,314	\$ 28,511,717
Past due but not impaired		
Past due within 30 days	5,169,209	6,755,262
Past due 31-60 days	929,672	1,693,463
Past due 61-120 days	582,821	3,056,855
Past due over 121 days	<u>341,411</u>	<u>-</u>
	<u>\$ 26,655,427</u>	<u>\$ 40,017,297</u>

Movements of the allowance for doubtful receivables

	Individually Assessed for Impairment	Collectively Assessed for Impairment	Total
Balance at January 1, 2017	\$ -	\$ 475,430	\$ 475,430
Reversal/Write-off	<u>-</u>	<u>(6,305)</u>	<u>(6,305)</u>
Balance at December 31, 2017	<u>\$ -</u>	<u>\$ 469,125</u>	<u>\$ 469,125</u>
Balance at January 1, 2016	\$ 8,393	\$ 475,109	\$ 483,502
Provision	-	321	321
Reversal/Write-off	<u>(8,393)</u>	<u>-</u>	<u>(8,393)</u>
Balance at December 31, 2016	<u>\$ -</u>	<u>\$ 475,430</u>	<u>\$ 475,430</u>

11. INVENTORIES

	December 31, 2017	December 31, 2016
Finished goods	\$ 9,596,837	\$ 8,324,267
Work in process	52,166,234	32,317,210
Raw materials	6,566,716	3,864,429
Supplies and spare parts	<u>1,967,658</u>	<u>1,998,440</u>
	<u>\$ 70,297,445</u>	<u>\$ 46,504,346</u>

Reversal of write-down of inventories resulting from the increase in net realizable value (excluding earthquake losses) and write-down of inventories to net realizable value (excluding earthquake losses) in the amount of NT\$878,346 thousand and NT\$1,508,452 thousand, respectively, were included in the cost of revenue for the years ended December 31, 2017 and 2016. Please refer to related earthquake losses in Note 35.

12. INVESTMENTS ACCOUNTED FOR USING EQUITY METHOD

Investments accounted for using the equity method consisted of the following:

	December 31, 2017	December 31, 2016
Subsidiaries	\$ 446,148,086	\$ 377,111,820
Associates	<u>17,838,278</u>	<u>19,743,888</u>
	<u>\$ 463,986,364</u>	<u>\$ 396,855,708</u>

a. Investments in subsidiaries

Subsidiaries consisted of the following:

Subsidiaries	Principal Activities	Place of Incorporation and Operation	Carrying Amount		% of Ownership and Voting Rights Held by the Company	
			December 31, 2017	December 31, 2016	December 31, 2017	December 31, 2016
TSMC Global Ltd. (TSMC Global)	Investment activities	Tortola, British Virgin Islands	\$ 309,211,877	\$ 265,634,729	100%	100%
TSMC China Company Limited (TSMC China)	Manufacturing, selling, testing and computer-aided design of integrated circuits and other semiconductor devices	Shanghai, China	51,060,885	42,618,308	100%	100%
TSMC Partners, Ltd. (TSMC Partners)	Investing in companies involved in the design, manufacture, and other related business in the semiconductor industry and other investment activities	Tortola, British Virgin Islands	49,684,287	51,749,910	100%	100%
TSMC Nanjing Company Limited (TSMC Nanjing)	Manufacturing, selling, testing and computer-aided design of integrated circuits and other semiconductor devices	Nanjing, China	26,493,740	6,331,094	100%	100%
VisEra Technologies Company Ltd. (VisEra Tech)	Engaged in manufacturing electronic spare parts and in researching, developing, designing, manufacturing, selling, packaging and testing of color filter	Hsinchu, Taiwan	4,667,162	5,234,883	87%	87%
TSMC North America	Selling and marketing of integrated circuits and other semiconductor devices	San Jose, California, U.S.A.	4,001,003	4,340,303	100%	100%
TSMC Europe B.V. (TSMC Europe)	Customer service and supporting activities	Amsterdam, the Netherlands	407,324	353,695	100%	100%
VentureTech Alliance Fund II, L.P. (VTAF II)	Investing in new start-up technology companies	Cayman Islands	320,533	467,171	98%	98%
VentureTech Alliance Fund III, L.P. (VTAF III)	Investing in new start-up technology companies	Cayman Islands	152,836	219,350	98%	98%
TSMC Japan Limited (TSMC Japan)	Customer service and supporting activities	Yokohama, Japan	129,446	132,999	100%	100%
TSMC Korea Limited (TSMC Korea)	Customer service and supporting activities	Seoul, Korea	39,210	35,706	100%	100%
TSMC Solar Europe GmbH	Selling of solar related products and providing customer service	Hamburg, Germany	(20,217)	(6,328)	100%	100%
Venture Tech Alliance Holdings, LLC (VTA Holdings)	Investing in new start-up technology companies	Delaware, U.S.A.	-	-	-	7%
			<u>\$ 446,148,086</u>	<u>\$ 377,111,820</u>		

TSMC Solar Europe GmbH is under liquidation procedures.

VTA Holdings completed the liquidation procedures in April 2017.

To simplify investment structure, the Company acquired 253,120 thousand shares of VisEra Tech previously held by VisEra Holding Company (VisEra Holding) by NT\$4,874,231 thousand in August 2016. The percentage of ownership held by the Company was 87%.

Under the investment agreement entered into with the municipal government of Nanjing, China on March 28, 2016, the Company and its subsidiaries will make an investment in Nanjing in the amount of approximately US\$3 billion to establish a subsidiary operating a 300mm wafer fab with the capacity of 20,000 12-inch wafers per month, and a design service center. TSMC Nanjing was established in May 2016. In both 2017 and 2016, the Company continually increased its investment in TSMC Nanjing for the amount of NT\$21,724,892 thousand and NT\$6,435,200 thousand. This project was approved by the Investment Commission, Ministry of Economic Affairs, R.O.C. (MOEA).

To lower the hedging cost, in both of 2017 and 2016, the Company continually increased its investment in TSMC Global for the amount of NT\$60,683,010 thousand and NT\$64,451,983 thousand, respectively. This project was approved by the Investment Commission, MOEA.

b. Investments in associates

Associates consisted of the following:

Name of Associate	Principal Activities	Place of Incorporation and Operation	Carrying Amount		% of Ownership and Voting Rights Held by the Company	
			December 31, 2017	December 31, 2016	December 31, 2017	December 31, 2016
Vanguard International Semiconductor Corporation (VIS)	Manufacturing, selling, packaging, testing and computer-aided design of integrated circuits and other semiconductor devices and the manufacturing and design service of masks	Hsinchu, Taiwan	\$ 8,568,344	\$ 8,806,384	28%	28%
Systems on Silicon Manufacturing Company Pte Ltd. (SSMC)	Manufacturing and selling of integrated circuits and other semiconductor devices	Singapore	5,677,640	7,163,516	39%	39%
Xintec Inc. (Xintec)	Wafer level chip size packaging and wafer level post passivation interconnection service	Taoyuan, Taiwan	2,292,100	2,599,807	41%	41%
Global Unichip Corporation (GUC)	Researching, developing, manufacturing, testing and marketing of integrated circuits	Hsinchu, Taiwan	<u>1,300,194</u>	<u>1,174,181</u>	35%	35%
			<u>\$ 17,838,278</u>	<u>\$ 19,743,888</u>		

Starting June 2016, the Company has no longer served as Motech's board of director. As a result, the Company exercises no significant influence over Motech. Therefore, Motech is no longer accounted for using the equity method. Further, such investment was reclassified to available-for-sale financial assets and the Company recognized a disposal loss of NT\$259,960 thousand.

To simplify investment structure, the Company acquired 18,504 thousand shares of Xintec previously held by VisEra Holding by NT\$445,012 thousand in August 2016. The percentage of ownership held by the Company increased to 41.4%.

As of December 31, 2017, no investments in associates are individually material to the Company. As of December 31, 2016, the summarized financial information in respect of each of the Company's material associates is set out below. The summarized financial information below represents amounts shown in the associate's financial statements prepared in accordance with the Accounting Standards Used in Preparation of the Parent Company Only Financial Statements, which is adjusted by the Company using the equity method of accounting.

1) VIS

	December 31, 2016
Current assets	<u>\$ 25,662,921</u>
Noncurrent assets	<u>\$ 9,501,442</u>
Current liabilities	<u>\$ 5,476,672</u>
Noncurrent liabilities	<u>\$ 804,107</u>
	Year Ended December 31, 2016
Net revenue	<u>\$ 25,828,634</u>
Income from operations	<u>\$ 6,083,625</u>
Net income	<u>\$ 5,520,645</u>
Other comprehensive income	<u>\$ 5,592</u>
Total comprehensive income	<u>\$ 5,526,237</u>
Cash dividends received	<u>\$ 1,206,981</u>

Reconciliation of the above summarized financial information to the carrying amount of the interest in the associate was as follows:

	December 31, 2016
Net assets	\$ 28,883,584
Percentage of ownership	<u>28%</u>
The Company's share of net assets of the associate	8,179,830
Goodwill	<u>626,554</u>
Carrying amount of the investment	<u>\$ 8,806,384</u>

2) SSMC

	December 31, 2016
Current assets	<u>\$ 14,585,150</u>
Noncurrent assets	<u>\$ 5,360,076</u>
Current liabilities	<u>\$ 1,746,602</u>
Noncurrent liabilities	<u>\$ 286,340</u>

	Year Ended December 31, 2016
Net revenue	<u>\$ 14,045,927</u>
Income from operations	<u>\$ 4,921,735</u>
Net income	<u>\$ 4,918,140</u>
Total comprehensive income	<u>\$ 4,918,140</u>
Cash dividends received	<u>\$ 4,076,170</u>

Reconciliation of the above summarized financial information to the carrying amount of the interest in the associate was as follows:

	December 31, 2016
Net assets	\$ 17,912,284
Percentage of ownership	<u>39%</u>
The Company's share of net assets of the associate	6,948,175
Goodwill	213,984
Other adjustments	<u>1,357</u>
Carrying amount of the investment	<u>\$ 7,163,516</u>

Aggregate information of associates that are not individually material was summarized as follows:

	Year Ended December 31, 2016
The Company's share of profits of associates	<u>\$ 42,457</u>
The Company's share of other comprehensive loss of associates	<u>\$ (17,777)</u>
The Company's share of total comprehensive income of associates	<u>\$ 24,680</u>

The market prices of the investments accounted for using the equity method in publicly traded stocks calculated by the closing price at the end of the reporting period are summarized as follows. The closing price represents the quoted price in active markets, the level 1 fair value measurement.

Name of Associate	December 31, 2017	December 31, 2016
VIS	<u>\$ 30,638,751</u>	<u>\$ 26,089,360</u>
GUC	<u>\$ 11,905,404</u>	<u>\$ 3,664,997</u>
Xintec	<u>\$ 9,180,759</u>	<u>\$ 3,622,227</u>

13. PROPERTY, PLANT AND EQUIPMENT

	Land	Buildings	Machinery and Equipment	Office Equipment	Equipment under Installation and Construction in Progress	Total
Cost						
Balance at January 1, 2017	\$ 3,212,000	\$ 281,936,412	\$ 1,960,457,480	\$ 31,830,657	\$ 384,197,526	\$ 2,661,634,075
Additions (Deductions)	-	75,491,595	458,690,837	7,888,336	(239,420,648)	302,650,120
Disposals or retirements	-	(36,957)	(49,921,595)	(315,776)	-	(50,274,328)
Balance at December 31, 2017	<u>\$ 3,212,000</u>	<u>\$ 357,391,050</u>	<u>\$ 2,369,226,722</u>	<u>\$ 39,403,217</u>	<u>\$ 144,776,878</u>	<u>\$ 2,914,009,867</u>
Accumulated depreciation and impairment						
Balance at January 1, 2017	\$ -	\$ 156,854,513	\$ 1,504,061,808	\$ 21,316,417	\$ -	\$ 1,682,232,738
Additions	-	19,798,087	226,251,816	4,547,232	-	250,597,135
Disposals or retirements	-	(28,816)	(34,831,423)	(315,737)	-	(35,175,976)
Balance at December 31, 2017	<u>\$ -</u>	<u>\$ 176,623,784</u>	<u>\$ 1,695,482,201</u>	<u>\$ 25,547,912</u>	<u>\$ -</u>	<u>\$ 1,897,653,897</u>
Carrying amounts at December 31, 2017	<u>\$ 3,212,000</u>	<u>\$ 180,767,266</u>	<u>\$ 673,744,521</u>	<u>\$ 13,855,305</u>	<u>\$ 144,776,878</u>	<u>\$ 1,016,355,970</u>
Cost						
Balance at January 1, 2016	\$ 3,212,000	\$ 272,949,721	\$ 1,807,955,631	\$ 27,809,576	\$ 191,052,758	\$ 2,302,979,686
Additions	-	9,000,012	155,226,807	4,264,166	193,144,768	361,635,753
Disposals or retirements	-	(13,321)	(2,724,958)	(243,085)	-	(2,981,364)
Balance at December 31, 2016	<u>\$ 3,212,000</u>	<u>\$ 281,936,412</u>	<u>\$ 1,960,457,480</u>	<u>\$ 31,830,657</u>	<u>\$ 384,197,526</u>	<u>\$ 2,661,634,075</u>
Accumulated depreciation and impairment						
Balance at January 1, 2016	\$ -	\$ 140,493,396	\$ 1,313,095,298	\$ 17,606,080	\$ -	\$ 1,471,194,774
Additions	-	16,368,395	193,655,507	3,953,422	-	213,977,324
Disposals or retirements	-	(7,278)	(2,688,997)	(243,085)	-	(2,939,360)
Balance at December 31, 2016	<u>\$ -</u>	<u>\$ 156,854,513</u>	<u>\$ 1,504,061,808</u>	<u>\$ 21,316,417</u>	<u>\$ -</u>	<u>\$ 1,682,232,738</u>
Carrying amounts at December 31, 2016	<u>\$ 3,212,000</u>	<u>\$ 125,081,899</u>	<u>\$ 456,395,672</u>	<u>\$ 10,514,240</u>	<u>\$ 384,197,526</u>	<u>\$ 979,401,337</u>

The significant part of the Company's buildings includes main plants, mechanical and electrical power equipment and clean rooms, and the related depreciation is calculated using the estimated useful lives of 20 years, 10 years and 10 years, respectively.

14. INTANGIBLE ASSETS

	Goodwill	Technology License Fees	Software and System Design Costs	Patent and Others	Total
<u>Cost</u>					
Balance at January 1, 2017	\$ 1,567,756	\$ 9,490,320	\$ 22,063,589	\$ 5,241,203	\$ 38,362,868
Additions	<u>-</u>	<u>897,855</u>	<u>2,900,120</u>	<u>349,189</u>	<u>4,147,164</u>
Balance at December 31, 2017	<u>\$ 1,567,756</u>	<u>\$ 10,388,175</u>	<u>\$ 24,963,709</u>	<u>\$ 5,590,392</u>	<u>\$ 42,510,032</u>
<u>Accumulated amortization and impairment</u>					
Balance at January 1, 2017	\$ -	\$ 6,091,513	\$ 17,991,500	\$ 4,231,864	\$ 28,314,877
Additions	<u>-</u>	<u>1,548,262</u>	<u>2,290,957</u>	<u>485,809</u>	<u>4,325,028</u>
Balance at December 31, 2017	<u>\$ -</u>	<u>\$ 7,639,775</u>	<u>\$ 20,282,457</u>	<u>\$ 4,717,673</u>	<u>\$ 32,639,905</u>
Carrying amounts at December 31, 2017	<u>\$ 1,567,756</u>	<u>\$ 2,748,400</u>	<u>\$ 4,681,252</u>	<u>\$ 872,719</u>	<u>\$ 9,870,127</u>
<u>Cost</u>					
Balance at January 1, 2016	\$ 1,567,756	\$ 8,399,059	\$ 19,297,534	\$ 4,722,667	\$ 33,987,016
Additions	-	1,091,261	2,770,842	518,536	4,380,639
Retirements	<u>-</u>	<u>-</u>	<u>(4,787)</u>	<u>-</u>	<u>(4,787)</u>
Balance at December 31, 2016	<u>\$ 1,567,756</u>	<u>\$ 9,490,320</u>	<u>\$ 22,063,589</u>	<u>\$ 5,241,203</u>	<u>\$ 38,362,868</u>
<u>Accumulated amortization and impairment</u>					
Balance at January 1, 2016	\$ -	\$ 4,724,143	\$ 16,279,451	\$ 3,592,004	\$ 24,595,598
Additions	-	1,367,370	1,716,836	639,860	3,724,066
Retirements	<u>-</u>	<u>-</u>	<u>(4,787)</u>	<u>-</u>	<u>(4,787)</u>
Balance at December 31, 2016	<u>\$ -</u>	<u>\$ 6,091,513</u>	<u>\$ 17,991,500</u>	<u>\$ 4,231,864</u>	<u>\$ 28,314,877</u>
Carrying amounts at December 31, 2016	<u>\$ 1,567,756</u>	<u>\$ 3,398,807</u>	<u>\$ 4,072,089</u>	<u>\$ 1,009,339</u>	<u>\$ 10,047,991</u>

The Company's goodwill has been tested for impairment at the end of the annual reporting period and the recoverable amount is determined based on the value in use. The value in use was calculated based on the cash flow forecast from the financial budgets covering the future five-year period, and the Company used annual discount rates of 8.5% and 8.4% in its test of impairment as of December 31, 2017 and 2016, respectively, to reflect the relevant specific risk in the cash-generating unit.

For the years ended December 31, 2017 and 2016, the Company did not recognize any impairment loss on goodwill.

15. OTHER ASSETS

	December 31, 2017	December 31, 2016
Tax receivable	\$ 1,992,258	\$ 2,182,159
Prepaid expenses	492,247	821,648
Others	<u>287</u>	<u>855</u>
	<u>\$ 2,484,792</u>	<u>\$ 3,004,662</u>

16. SHORT-TERM LOANS

	December 31, 2017	December 31, 2016
Unsecured loans		
Amount	<u>\$ 63,766,850</u>	<u>\$ 57,958,200</u>
Original loan content		
US\$ (in thousands)	\$ 2,150,000	\$ 1,800,000
Annual interest rate	1.54%-1.82%	0.87%-1.07%
Maturity date	Due by February 2018	Due by January 2017

17. PROVISIONS

The Company's current provisions were provisions for sales returns and allowances.

	Sales Returns and Allowances
<u>Year ended December 31, 2017</u>	
Balance, beginning of year	\$ 16,991,612
Provision	44,244,876
Payment	<u>(48,061,663)</u>
Balance, end of year	<u>\$ 13,174,825</u>
<u>Year ended December 31, 2016</u>	
Balance, beginning of year	\$ 9,011,863
Provision	35,699,912
Payment	<u>(27,720,163)</u>
Balance, end of year	<u>\$ 16,991,612</u>

Provisions for sales returns and allowances are estimated based on historical experience and the consideration of varying contractual terms, and are recognized as a reduction of revenue in the same year of the related product sales.

18. BONDS PAYABLE

	December 31, 2017	December 31, 2016
Domestic unsecured bonds	\$ 116,100,000	\$ 154,200,000
Less: Current portion	<u>(24,300,000)</u>	<u>(38,100,000)</u>
	<u>\$ 91,800,000</u>	<u>\$ 116,100,000</u>

The major terms of domestic unsecured bonds are as follows:

Issuance	Tranche	Issuance Period	Total Amount	Coupon Rate	Repayment and Interest Payment
100-1	A	September 2011 to September 2016	\$ 10,500,000	1.40%	Bullet repayment; interest payable annually
	B	September 2011 to September 2018	7,500,000	1.63%	The same as above
100-2	A	January 2012 to January 2017	10,000,000	1.29%	The same as above
	B	January 2012 to January 2019	7,000,000	1.46%	The same as above
101-1	A	August 2012 to August 2017	9,900,000	1.28%	The same as above
	B	August 2012 to August 2019	9,000,000	1.40%	The same as above
101-2	A	September 2012 to September 2017	12,700,000	1.28%	The same as above
	B	September 2012 to September 2019	9,000,000	1.39%	The same as above
101-3	-	October 2012 to October 2022	4,400,000	1.53%	The same as above
101-4	A	January 2013 to January 2018	10,600,000	1.23%	The same as above
	B	January 2013 to January 2020	10,000,000	1.35%	The same as above
	C	January 2013 to January 2023	3,000,000	1.49%	The same as above
102-1	A	February 2013 to February 2018	6,200,000	1.23%	The same as above
	B	February 2013 to February 2020	11,600,000	1.38%	The same as above
	C	February 2013 to February 2023	3,600,000	1.50%	The same as above
102-2	A	July 2013 to July 2020	10,200,000	1.50%	The same as above
	B	July 2013 to July 2023	3,500,000	1.70%	The same as above
102-3	A	August 2013 to August 2017	4,000,000	1.34%	The same as above
	B	August 2013 to August 2019	8,500,000	1.52%	The same as above
102-4	A	September 2013 to September 2016	1,500,000	1.35%	The same as above
	B	September 2013 to September 2017	1,500,000	1.45%	The same as above

(Continued)

Issuance	Tranche	Issuance Period	Total Amount	Coupon Rate	Repayment and Interest Payment
102-4	C	September 2013 to March 2019	\$ 1,400,000	1.60%	Bullet repayment; interest payable annually (interest for the six months prior to maturity will accrue on the basis of actual days and be repayable at maturity)
	D	September 2013 to March 2021	2,600,000	1.85%	The same as above
	E	September 2013 to March 2023	5,400,000	2.05%	The same as above
	F	September 2013 to September 2023	2,600,000	2.10%	Bullet repayment; interest payable annually
					(Concluded)

19. RETIREMENT BENEFIT PLANS

a. Defined contribution plans

The plan under the R.O.C. Labor Pension Act (the "Act") is deemed a defined contribution plan. Pursuant to the Act, the Company has made monthly contributions equal to 6% of each employee's monthly salary to employees' pension accounts. Accordingly, the Company recognized expenses of NT\$1,905,444 thousand and NT\$1,735,492 thousand for the years ended December 31, 2017 and 2016, respectively.

b. Defined benefit plans

The Company has defined benefit plans under the R.O.C. Labor Standards Law that provide benefits based on an employee's length of service and average monthly salary for the six-month period prior to retirement. The Company contributes an amount equal to 2% of salaries paid each month to their respective pension funds (the Funds), which are administered by the Labor Pension Fund Supervisory Committee (the Committee) and deposited in the Committee's name in the Bank of Taiwan. Before the end of each year, the Company assesses the balance in the Funds. If the amount of the balance in the Funds is inadequate to pay retirement benefits for employees who conform to retirement requirements in the next year, the Company is required to fund the difference in one appropriation that should be made before the end of March of the next year. The Funds are operated and managed by the government's designated authorities; as such, the Company does not have any right to intervene in the investments of the Funds.

Amounts recognized in respect of these defined benefit plans were as follows:

	Years Ended December 31	
	2017	2016
Current service cost	\$ 145,026	\$ 132,786
Net interest expense	<u>126,525</u>	<u>139,355</u>
Components of defined benefit costs recognized in profit or loss	<u>271,551</u>	<u>272,141</u>
Remeasurement on the net defined benefit liability:		
Return on plan assets (excluding amounts included in net interest expense)	29,290	45,721
Actuarial loss arising from experience adjustments	483,846	38,195
Actuarial loss(gain) arising from changes in financial assumptions	(258,455)	694,632
Actuarial loss arising from changes in demographic assumptions	<u>-</u>	<u>278,672</u>
Components of defined benefit costs recognized in other comprehensive income	<u>254,681</u>	<u>1,057,220</u>
Total	<u>\$ 526,232</u>	<u>\$ 1,329,361</u>

The pension costs of the aforementioned defined benefit plans were recognized in profit or loss by the following categories:

	Years Ended December 31	
	2017	2016
Cost of revenue	\$ 175,357	\$ 176,977
Research and development expenses	75,340	73,395
General and administrative expenses	16,669	17,367
Marketing expenses	<u>4,185</u>	<u>4,402</u>
	<u>\$ 271,551</u>	<u>\$ 272,141</u>

The amounts arising from the defined benefit obligation of the Company were as follows:

	December 31, 2017	December 31, 2016
Present value of defined benefit obligation	\$ 12,774,593	\$ 12,480,480
Fair value of plan assets	<u>(3,923,889)</u>	<u>(3,929,072)</u>
Net defined benefit liability	<u>\$ 8,850,704</u>	<u>\$ 8,551,408</u>

Movements in the present value of the defined benefit obligation were as follows:

	Years Ended December 31	
	2017	2016
Balance, beginning of year	\$ 12,480,480	\$ 11,318,174
Current service cost	145,026	132,786
Interest expense	185,561	212,909
Remeasurement losses (gains):		
Actuarial loss arising from experience adjustments	483,846	38,195
Actuarial loss (gain) arising from changes in financial assumptions	(258,455)	694,632
Actuarial loss arising from changes in demographic assumptions	-	278,672
Benefits paid from plan assets	<u>(261,865)</u>	<u>(194,888)</u>
Balance, end of year	<u>\$ 12,774,593</u>	<u>\$ 12,480,480</u>

Movements in the fair value of the plan assets were as follows:

	Years Ended December 31	
	2017	2016
Balance, beginning of year	\$ 3,929,072	\$ 3,870,148
Interest income	59,036	73,554
Remeasurement losses:		
Return on plan assets (excluding amounts included in net interest expense)	(29,290)	(45,721)
Contributions from employer	226,936	225,979
Benefits paid from plan assets	<u>(261,865)</u>	<u>(194,888)</u>
Balance, end of year	<u>\$ 3,923,889</u>	<u>\$ 3,929,072</u>

The fair value of the plan assets by major categories at the end of reporting period was as follows:

	December 31, 2017	December 31, 2016
Cash	\$ 707,477	\$ 818,426
Equity instruments	1,993,336	1,852,950
Debt instruments	<u>1,223,076</u>	<u>1,257,696</u>
	<u>\$ 3,923,889</u>	<u>\$ 3,929,072</u>

The actuarial valuations of the present value of the defined benefit obligation were carried out by qualified actuaries. The principal assumptions of the actuarial valuation were as follows:

	Measurement Date	
	December 31, 2017	December 31, 2016
Discount rate	1.65%	1.50%
Future salary increase rate	3.00%	3.00%

Through the defined benefit plans under the R.O.C. Labor Standards Law, the Company is exposed to the following risks:

- 1) Investment risk: The pension funds are invested in equity and debt securities, bank deposits, etc. The investment is conducted at the discretion of the government's designated authorities or under the mandated management. However, under the R.O.C. Labor Standards Law, the rate of return on assets shall not be less than the average interest rate on a two-year time deposit published by the local banks and the government is responsible for any shortfall in the event that the rate of return is less than the required rate of return.
- 2) Interest risk: A decrease in the government bond interest rate will increase the present value of the defined benefit obligation; however, this will be partially offset by an increase in the return on the debt investments of the plan assets.

Assuming a hypothetical decrease in interest rate at the end of the reporting period contributed to a decrease of 0.5% in the discount rate and all other assumptions were held constant, the present value of the defined benefit obligation would increase by NT\$890,116 thousand and NT\$970,282 thousand as of December 31, 2017 and 2016, respectively.

- 3) Salary risk: The present value of the defined benefit obligation is calculated by reference to the future salaries of plan participants. As such, an increase in the salary of the plan participants will increase the present value of the defined benefit obligation.

Assuming the expected salary rate increases by 0.5% at the end of the reporting period and all other assumptions were held constant, the present value of the defined benefit obligation would increase by NT\$873,801 thousand and NT\$951,424 thousand as of December 31, 2017 and 2016, respectively.

The sensitivity analysis presented above may not be representative of the actual change in the defined benefit obligation as it is unlikely that the change in assumptions would occur in isolation of one another as some of the assumptions may be correlated.

Furthermore, in presenting the above sensitivity analysis, the present value of the defined benefit obligation has been calculated using the projected unit credit method at the end of the reporting period, which is the same as that applied in calculating the defined benefit obligation liability.

The Company expects to make contributions of NT\$233,745 thousand to the defined benefit plans in the next year starting from December 31, 2017. The weighted average duration of the defined benefit obligation is 13 years.

20. GUARANTEE DEPOSITS

	December 31, 2017	December 31, 2016
Capacity guarantee	\$ 13,346,550	\$ 20,929,350
Others	<u>282,572</u>	<u>176,992</u>
	<u>\$ 13,629,122</u>	<u>\$ 21,106,342</u>
Current portion (classified under accrued expenses and other current liabilities)	\$ 6,046,643	\$ 6,439,800
Noncurrent portion	<u>7,582,479</u>	<u>14,666,542</u>
	<u>\$ 13,629,122</u>	<u>\$ 21,106,342</u>

Some of guarantee deposits were refunded to customers by offsetting related accounts receivable.

21. EQUITY

a. Capital stock

	December 31, 2017	December 31, 2016
Authorized shares (in thousands)	<u>28,050,000</u>	<u>28,050,000</u>
Authorized capital	<u>\$ 280,500,000</u>	<u>\$ 280,500,000</u>
Issued and paid shares (in thousands)	<u>25,930,380</u>	<u>25,930,380</u>
Issued capital	<u>\$ 259,303,805</u>	<u>\$ 259,303,805</u>

A holder of issued common shares with par value of NT\$10 per share is entitled to vote and to receive dividends.

The authorized shares include 500,000 thousand shares allocated for the exercise of employee stock options.

As of December 31, 2017, 1,068,165 thousand ADSs of the Company were traded on the NYSE. The number of common shares represented by the ADSs was 5,340,823 thousand shares (one ADS represents five common shares).

b. Capital surplus

	December 31, 2017	December 31, 2016
Additional paid-in capital	\$ 24,184,939	\$ 24,184,939
From merger	22,804,510	22,804,510
From convertible bonds	8,892,847	8,892,847
From share of changes in equities of subsidiaries	118,792	107,798
From share of changes in equities of associates	289,240	282,155
Donations	<u>19,208</u>	<u>55</u>
	<u>\$ 56,309,536</u>	<u>\$ 56,272,304</u>

Under the relevant laws, the capital surplus generated from donations and the excess of the issuance price over the par value of capital stock (including the stock issued for new capital, mergers and convertible bonds) may be used to offset a deficit; in addition, when the Company has no deficit, such capital surplus may be distributed as cash dividends or stock dividends up to a certain percentage of the Company's paid-in capital. The capital surplus from share of changes in equities of subsidiaries and associates and dividend of a claim extinguished by a prescription may be used to offset a deficit; however, when generated from issuance of restricted shares for employees, such capital surplus may not be used for any purpose.

c. Retained earnings and dividend policy

In accordance with the amendments to the R.O.C. Company Act in May 2015, the recipients of dividends and bonuses are limited to shareholders and do not include employees. The amendments to the Company's Articles of Incorporation on earnings distribution policy had been approved by the Company's shareholders in its meeting held on June 7, 2016. For policy about the profit sharing bonus to employees, please refer to Note 29.

The Company's amended Articles of Incorporation provide that, when allocating the net profits for each fiscal year, the Company shall first offset its losses in previous years and then set aside the following items accordingly:

- 1) Legal capital reserve at 10% of the profits left over, until the accumulated legal capital reserve equals the Company's paid-in capital;
- 2) Special capital reserve in accordance with relevant laws or regulations or as requested by the authorities in charge;
- 3) Any balance left over shall be allocated according to the resolution of the shareholders' meeting.

The Company's Articles of Incorporation also provide that profits of the Company may be distributed by way of cash dividend and/or stock dividend. However, distribution of earnings shall be made preferably by way of cash dividend. Distribution of earnings may also be made by way of stock dividend; provided that the ratio for stock dividend shall not exceed 50% of the total distribution.

Any appropriations of the profits are subject to shareholders' approval in the following year.

The appropriation for legal capital reserve shall be made until the reserve equals the Company's paid-in capital. The reserve may be used to offset a deficit, or be distributed as dividends in cash or stocks for the portion in excess of 25% of the paid-in capital if the Company incurs no loss.

Pursuant to existing regulations, the Company is required to set aside additional special capital reserve equivalent to the net debit balance of the other components of stockholders' equity, such as the accumulated balance of foreign currency translation reserve, unrealized valuation gain/loss from available-for-sale financial assets, gain/loss from changes in fair value of hedging instruments in cash flow hedges, etc. For the subsequent decrease in the deduction amount to stockholders' equity, any special reserve appropriated may be reversed to the extent that the net debit balance reverses.

The appropriations of 2016 and 2015 earnings have been approved by the Company's shareholders in its meetings held on June 8, 2017 and June 7, 2016, respectively. The appropriations and dividends per share were as follows:

	Appropriation of Earnings		Dividends Per Share (NT\$)	
	For Fiscal Year 2016	For Fiscal Year 2015	For Fiscal Year 2016	For Fiscal Year 2015
Legal capital reserve	\$ 33,424,718	\$ 30,657,384		
Cash dividends to shareholders	<u>181,512,663</u>	<u>155,582,283</u>	\$7	\$6
	<u>\$ 214,937,381</u>	<u>\$ 186,239,667</u>		

The Company's appropriations of earnings for 2017 had been approved in the meeting of the Board of Directors held on February 13, 2018. The appropriations and dividends per share were as follows:

	Appropriation of Earnings	Dividends Per Share (NT\$)
	For Fiscal Year 2017	For Fiscal Year 2017
Legal capital reserve	\$ 34,311,148	
Special capital reserve	26,907,527	
Cash dividends to shareholders	<u>207,443,044</u>	\$ 8
	<u>\$ 268,661,719</u>	

The appropriations of earnings for 2017 are to be presented for approval in the Company's shareholders' meeting to be held on June 5, 2018 (expected).

Under the Integrated Income Tax System that became effective on January 1, 1998, the R.O.C. resident shareholders are allowed a tax credit for their proportionate share of the income tax paid by the Company on earnings generated since January 1, 1998.

d. Others

Changes in others were as follows:

	Year Ended December 31, 2017				
	Foreign Currency Translation Reserve	Unrealized Gain/Loss from Available-for- sale Financial Assets	Cash Flow Hedges Reserve	Unearned Stock-Based Employee Compensation	Total
Balance, beginning of year	\$ 1,661,237	\$ 2,641	\$ 105	\$ -	\$ 1,663,983
Exchange differences arising on translation of foreign operations	(28,270,770)	-	-	-	(28,270,770)
Changes in fair value of available-for-sale financial assets	-	(310,002)	-	-	(310,002)
Cumulative (gain)/loss reclassified to profit or loss upon disposal of available-for-sale financial assets	-	(115,690)	-	-	(115,690)
Gain/(loss) arising on changes in the fair value of hedging instruments	-	-	99,534	-	99,534
Transferred to initial carrying amount of hedged items	-	-	(94,851)	-	(94,851)
Share of other comprehensive income (loss) of associates	(88,147)	211,951	-	-	123,804
Share of unearned stock-based employee compensation of associates	-	-	-	(10,290)	(10,290)
Income tax effect	-	(2,974)	(562)	-	(3,536)
Balance, end of year	<u>\$ (26,697,680)</u>	<u>\$ (214,074)</u>	<u>\$ 4,226</u>	<u>\$ (10,290)</u>	<u>\$ 26,917,818</u>
	Year Ended December 31, 2016				
	Foreign Currency Translation Reserve	Unrealized Gain/Loss from Available-for- sale Financial Assets	Cash Flow Hedges Reserve		Total
Balance, beginning of year	\$ 11,039,949	\$ 734,771	\$ (607)		\$ 11,774,113
Exchange differences arising on translation of foreign operations	(9,439,776)	-	-		(9,439,776)
Changes in fair value of available-for-sale financial assets	-	148,917	-		148,917
Cumulative gain reclassified to profit or loss upon disposal of available-for-sale financial assets	-	(101,411)	-		(101,411)
Share of other comprehensive income (loss) of subsidiaries and associates	65,776	(714,991)	712		(648,503)
Other comprehensive loss reclassified to profit or loss upon disposal of associates	(4,712)	(3,469)	-		(8,181)
Income tax effect	-	(61,176)	-		(61,176)
Balance, end of year	<u>\$ 1,661,237</u>	<u>\$ 2,641</u>	<u>\$ 105</u>		<u>\$ 1,663,983</u>

The aforementioned other equity includes the changes in other equities of the Company and the Company's share of its subsidiaries and associates.

22. NET REVENUE

	<u>Years Ended December 31</u>	
	<u>2017</u>	<u>2016</u>
Net revenue from sale of goods	\$ 968,611,860	\$ 935,864,491
Net revenue from royalties	<u>524,249</u>	<u>522,800</u>
	<u>\$ 969,136,109</u>	<u>\$ 936,387,291</u>

23. OTHER OPERATING INCOME AND EXPENSES, NET

	<u>Years Ended December 31</u>	
	<u>2017</u>	<u>2016</u>
Gain (loss) on disposal or retirement of property, plant and equipment, net	\$ (1,008,989)	\$ 100,503
Others	<u>(252,676)</u>	<u>(16,538)</u>
	<u>\$ (1,261,665)</u>	<u>\$ 83,965</u>

24. OTHER INCOME

	<u>Years Ended December 31</u>	
	<u>2017</u>	<u>2016</u>
Interest income		
Bank deposits	\$ 1,522,579	\$ 1,634,873
Held-to-maturity financial assets	<u>32,213</u>	<u>48,277</u>
	1,554,792	1,683,150
Dividend income	<u>141,803</u>	<u>133,653</u>
	<u>\$ 1,696,595</u>	<u>\$ 1,816,803</u>

25. FINANCE COSTS

	<u>Years Ended December 31</u>	
	<u>2017</u>	<u>2016</u>
Interest expense		
Corporate bonds	\$ 1,967,750	\$ 2,353,251
Bank loans	766,001	289,942
Related parties	<u>15,889</u>	<u>-</u>
	<u>\$ 2,749,640</u>	<u>\$ 2,643,193</u>

26. OTHER GAINS AND LOSSES, NET

	Years Ended December 31	
	2017	2016
Gain on disposal of financial assets, net		
Available-for-sale financial assets	\$ 115,690	\$ 101,411
Other gains	245,483	125,282
Net gain (loss) on financial instruments at FVTPL		
Held for trading	1,252,759	899,991
Designated as at FVTPL	-	(76,691)
Loss on disposal of investments accounted for using equity method, net	-	(296,065)
Impairment loss of financial assets		
Financial assets carried at cost	(6,137)	(4,537)
Other losses	<u>(15,556)</u>	<u>(15,291)</u>
	<u>\$ 1,592,239</u>	<u>\$ 734,100</u>

27. INCOME TAX

- a. Income tax expense recognized in profit or loss

Income tax expense consisted of the following:

	Years Ended December 31	
	2017	2016
Current income tax expense		
Current tax expense recognized in the current year	\$ 55,187,468	\$ 53,577,418
Income tax adjustments on prior years	(938,292)	(1,039,175)
Other income tax adjustments	<u>150,168</u>	<u>168,040</u>
	<u>54,399,344</u>	<u>52,706,283</u>
Deferred income tax benefit		
The origination and reversal of temporary differences	<u>(4,194,644)</u>	<u>(1,764,503)</u>
Income tax expense recognized in profit or loss	<u>\$ 50,204,700</u>	<u>\$ 50,941,780</u>

A reconciliation of income before income tax and income tax expense recognized in profit or loss was as follows:

	Years Ended December 31	
	2017	2016
Income before tax	<u>\$ 393,316,176</u>	<u>\$ 385,188,960</u>
Income tax expense at the statutory rate (17%)	\$ 66,863,750	\$ 65,482,123
Tax effect of adjusting items:		
Nondeductible (deductible) items in determining taxable income	(1,438,813)	121,152
Tax-exempt income	(16,467,720)	(19,075,801)
Additional income tax on unappropriated earnings	11,835,948	11,957,213

(Continued)

	Years Ended December 31	
	2017	2016
The origination and reversal of temporary differences	\$ (4,194,644)	\$ (1,764,503)
Income tax credits	<u>(5,605,697)</u>	<u>(4,907,269)</u>
	50,992,824	51,812,915
Income tax adjustments on prior years	(938,292)	(1,039,175)
Other income tax adjustments	<u>150,168</u>	<u>168,040</u>
Income tax expense recognized in profit or loss	<u>\$ 50,204,700</u>	<u>\$ 50,941,780</u> (Concluded)

In January 2018, it was announced that the Income Tax Law in the R.O.C. was amended and, starting from 2018, the corporate income tax rate will be adjusted from 17% to 20%. In addition, the tax rate applicable to unappropriated earnings will be reduced from 10% to 5%. Deferred tax assets and deferred tax liabilities recognized as of December 31, 2017 are expected to be adjusted and would increase by NT\$1,464,963 thousand and NT\$15,096 thousand, respectively, in 2018.

b. Income tax expense recognized in other comprehensive income

	Years Ended December 31	
	2017	2016
Deferred income tax benefit (expense)		
Related to remeasurement of defined benefit obligation	\$ 30,562	\$ 126,867
Related to unrealized gain/loss on available-for-sale financial assets	(2,974)	(61,176)
Related to gain/loss on cash flow hedges	<u>(562)</u>	<u>-</u>
	<u>\$ 27,026</u>	<u>\$ 65,691</u>

c. Deferred income tax balance

The analysis of deferred income tax assets and liabilities was as follows:

	December 31, 2017	December 31, 2016
Deferred income tax assets		
Temporary differences		
Depreciation	\$ 7,668,535	\$ 3,284,735
Provision for sales returns and allowance	1,580,979	1,428,787
Net defined benefit liability	975,324	939,543
Unrealized loss on inventories	604,635	698,858
Others	<u>-</u>	<u>94,858</u>
	<u>\$ 10,829,473</u>	<u>\$ 6,446,781</u>
Deferred income tax liabilities		
Temporary differences		
Unrealized exchange gains	\$ (169,480)	\$ (48,736)
Available-for-sale financial assets	(95,421)	(92,447)
Cash flow hedges	<u>(37,304)</u>	<u>-</u>
	<u>\$ (302,205)</u>	<u>\$ (141,183)</u>

	Balance, Beginning of Year	Recognized in		Balance, End of Year
		Profit or Loss	Other Comprehensive Income	
<u>Year Ended December 31, 2017</u>				
Deferred income tax assets				
Temporary differences				
Depreciation	\$ 3,284,735	\$ 4,383,800	\$ -	\$ 7,668,535
Provision for sales returns and allowance	1,428,787	152,192	-	1,580,979
Net defined benefit liability	939,543	5,219	30,562	975,324
Unrealized loss on inventories	698,858	(94,223)	-	604,635
Others	<u>94,858</u>	<u>(94,858)</u>	<u>-</u>	<u>-</u>
	<u>\$ 6,446,781</u>	<u>\$ 4,352,130</u>	<u>\$ 30,562</u>	<u>\$ 10,829,473</u>
Deferred income tax liabilities				
Temporary differences				
Unrealized exchange gains	\$ (48,736)	\$ (120,744)	\$ -	\$ (169,480)
Available-for-sale financial assets	(92,447)	-	(2,974)	(95,421)
Cash flow hedges	<u>-</u>	<u>(36,742)</u>	<u>(562)</u>	<u>(37,304)</u>
	<u>\$ (141,183)</u>	<u>\$ (157,486)</u>	<u>\$ (3,536)</u>	<u>\$ (302,205)</u>
<u>Year Ended December 31, 2016</u>				
Deferred income tax assets				
Temporary differences				
Depreciation	\$ 1,874,632	\$ 1,410,103	\$ -	\$ 3,284,735
Provision for sales returns and allowance	1,081,423	347,364	-	1,428,787
Net defined benefit liability	895,486	(82,810)	126,867	939,543
Unrealized loss on inventories	573,243	125,615	-	698,858
Others	<u>81,891</u>	<u>12,967</u>	<u>-</u>	<u>94,858</u>
	<u>\$ 4,506,675</u>	<u>\$ 1,813,239</u>	<u>\$ 126,867</u>	<u>\$ 6,446,781</u>
Deferred income tax liabilities				
Temporary differences				
Available-for-sale financial assets	\$ (31,271)	\$ -	\$ (61,176)	\$ (92,447)
Unrealized exchange gains	<u>-</u>	<u>(48,736)</u>	<u>-</u>	<u>(48,736)</u>
	<u>\$ (31,271)</u>	<u>\$ (48,736)</u>	<u>\$ (61,176)</u>	<u>\$ (141,183)</u>

- d. The deductible temporary differences for which no deferred income tax assets have been recognized

As of December 31, 2017 and 2016, the aggregate deductible temporary differences for which no deferred income tax assets have been recognized amounted to NT\$26,536,307 thousand and NT\$1,919,784 thousand, respectively.

e. Unused tax-exemption information

As of December 31, 2017, the profits generated from the following projects of the Company are exempt from income tax for a five-year period:

	Tax-exemption Period
Construction and expansion of 2007	2014 to 2018
Construction and expansion of 2008	2015 to 2019
Construction and expansion of 2009	2018 to 2022

f. The information of unrecognized deferred income tax liabilities associated with investments

As of December 31, 2017 and 2016, the aggregate taxable temporary differences associated with investments in subsidiaries not recognized as deferred income tax liabilities amounted to NT\$95,003,344 thousand and NT\$83,181,401 thousand, respectively.

g. Integrated income tax information

	December 31, 2017	December 31, 2016
Balance of the Imputation Credit Account	<u>\$ 114,264,283</u>	<u>\$ 82,072,562</u>

The estimated and actual creditable ratio for distribution of the Company's earnings of 2017 and 2016 were 14.69% and 13.90%, respectively; while the creditable ratio for individual shareholders residing in the R.O.C. is half of the original creditable ratio according to the R.O.C. Income Tax Law. However, effective from January 1, 2018, integrated income tax system were abrogated and imputation credit account is no longer applicable based on amended R.O.C. Income Tax Law in January 2018.

All earnings generated prior to December 31, 1997 have been appropriated.

h. Income tax examination

The tax authorities have examined income tax returns of the Company through 2014. All investment tax credit adjustments assessed by the tax authorities have been recognized accordingly.

28. EARNINGS PER SHARE

	Years Ended December 31	
	2017	2016
Basic EPS	<u>\$13.23</u>	<u>\$12.89</u>
Diluted EPS	<u>\$13.23</u>	<u>\$12.89</u>

EPS is computed as follows:

	Amounts (Numerator)	Number of Shares (Denominator) (In Thousands)	EPS (NT\$)
<u>Year ended December 31, 2017</u>			
Basic/Diluted EPS			
Net income available to common shareholders	<u>\$ 343,111,476</u>	<u>25,930,380</u>	<u>\$13.23</u>
<u>Year ended December 31, 2016</u>			
Basic/Diluted EPS			
Net income available to common shareholders	<u>\$ 334,247,180</u>	<u>25,930,380</u>	<u>\$12.89</u>

29. ADDITIONAL INFORMATION OF EXPENSES BY NATURE

	<u>Years Ended December 31</u>	
	<u>2017</u>	<u>2016</u>
a. Depreciation of property, plant and equipment		
Recognized in cost of revenue	\$ 231,042,615	\$ 197,595,313
Recognized in operating expenses	19,490,010	16,357,124
Recognized in other operating income and expenses	<u>64,510</u>	<u>24,887</u>
	<u>\$ 250,597,135</u>	<u>\$ 213,977,324</u>
b. Amortization of intangible assets		
Recognized in cost of revenue	\$ 2,119,899	\$ 2,014,814
Recognized in operating expenses	<u>2,205,129</u>	<u>1,709,252</u>
	<u>\$ 4,325,028</u>	<u>\$ 3,724,066</u>
c. Research and development expenses	<u>\$ 79,887,723</u>	<u>\$ 70,366,179</u>
d. Employee benefits expenses		
Post-employment benefits		
Defined contribution plans	\$ 1,905,444	\$ 1,735,492
Defined benefit plans	<u>271,551</u>	<u>272,141</u>
	2,176,995	2,007,633
Other employee benefits	<u>90,611,476</u>	<u>86,133,216</u>
	<u>\$ 92,788,471</u>	<u>\$ 88,140,849</u>
Employee benefits expense summarized by function		
Recognized in cost of revenue	\$ 55,902,877	\$ 53,109,947
Recognized in operating expenses	<u>36,885,594</u>	<u>35,030,902</u>
	<u>\$ 92,788,471</u>	<u>\$ 88,140,849</u>

In accordance with the amendments to the R.O.C. Company Act in May 2015 and the amended the Company's Articles of Incorporation approved by the Company's shareholders in its meeting held on June 7, 2016, the Company shall allocate compensation to directors and profit sharing bonus to employees of the Company not more than 0.3% and not less than 1% of annual profits during the period, respectively.

The Company accrued profit sharing bonus to employees based on a percentage of net income before income tax, profit sharing bonus to employees and compensation to directors during the period, which amounted to NT\$23,019,082 thousand and NT\$22,418,339 thousand for the years ended December 31, 2017 and 2016, respectively; compensation to directors was expensed based on estimated amount payable. If there is a change in the proposed amounts after the annual parent company only financial statements are authorized for issue, the differences are recorded as a change in accounting estimate.

The Company's profit sharing bonus to employees and compensation to directors in the amounts of NT\$23,019,082 thousand and NT\$368,919 thousand in cash for 2017, respectively, and profit sharing bonus to employees and compensation to directors in the amounts of NT\$22,418,339 thousand and NT\$376,432 thousand in cash for 2016, respectively, had been approved by the Board of Directors of the Company held on February 13, 2018 and February 14, 2017, respectively. There is no significant difference between the aforementioned approved amounts and the amounts charged against earnings of 2017 and 2016, respectively.

The Company's profit sharing bonus to employees and compensation to directors in the amounts of NT\$20,556,888 thousand and NT\$356,186 thousand in cash for 2015, respectively, had been approved by the Board of Directors on February 2, 2016. The profit sharing bonus to employees and compensation to directors in cash for 2015 had been reported to the Company's shareholders in its meeting held on June 7, 2016, after the amended the Company's Articles of Incorporation had been approved. The aforementioned approved amount has no difference with the one recognized in the parent company only financial statements for the year ended December 31, 2015.

The information about the appropriations of the Company's profit sharing bonus to employees and compensation to directors is available at the Market Observation Post System website.

30. CAPITAL MANAGEMENT

The Company requires significant amounts of capital to build and expand its production facilities and acquire additional equipment. In consideration of the industry dynamics, the Company manages its capital in a manner to ensure that it has sufficient and necessary financial resources to fund its working capital needs, capital asset purchases, research and development activities, dividend payments, debt service requirements and other business requirements associated with its existing operations over the next 12 months.

31. FINANCIAL INSTRUMENTS

a. Categories of financial instruments

	December 31, 2017	December 31, 2016
Financial assets		
FVTPL	\$ 373,351	\$ 151,070
Available-for-sale financial assets (Note 1)	2,808,606	3,279,220
Held-to-maturity financial assets	-	11,447,538
Hedging derivative financial assets	7,378	-
Loans and receivables (Note 2)	<u>362,375,885</u>	<u>380,199,491</u>
	<u>\$ 365,565,220</u>	<u>\$ 395,077,319</u>

(Continued)

	December 31, 2017	December 31, 2016
Financial liabilities		
FVTPL	\$ 18,764	\$ 62,441
Hedging derivative financial liabilities	15,562	-
Amortized cost (Note 3)	<u>294,856,247</u>	<u>344,572,867</u>
	<u>\$ 294,890,573</u>	<u>\$ 344,635,308</u>
		(Concluded)

Note 1: Including financial assets carried at cost.

Note 2: Including cash and cash equivalents, notes and accounts receivable (including related parties), other receivables and refundable deposits.

Note 3: Including short-term loans, accounts payable (including related parties), payables to contractors and equipment suppliers, accrued expenses and other current liabilities, bonds payable, and guarantee deposits.

b. Financial risk management objectives

The Company seeks to ensure sufficient cost-efficient funding readily available when needed. The Company manages its exposure to foreign currency risk, interest rate risk, equity price risk, credit risk and liquidity risk with the objective to reduce the potentially adverse effects the market uncertainties may have on its financial performance.

The plans for material treasury activities are reviewed by Audit Committees and/or Board of Directors in accordance with procedures required by relevant regulations or internal controls. During the implementation of such plans, Corporate Treasury function must comply with certain treasury procedures that provide guiding principles for overall financial risk management and segregation of duties.

c. Market risk

The Company is exposed to the financial market risks, primarily changes in foreign currency exchange rates, interest rates and equity investment prices.

Foreign currency risk

Most of the Company's operating activities are denominated in foreign currencies. Consequently, the Company is exposed to foreign currency risk. To protect against reductions in value and the volatility of future cash flows caused by changes in foreign exchange rates, the Company utilizes derivative financial instruments, such as forward exchange contracts and cross currency swaps, and non-derivative financial instruments, such as foreign currency-denominated debt, to partially hedge its currency exposure.

The Company's sensitivity analysis of foreign currency risk mainly focuses on the foreign currency monetary items and the derivatives financial instruments at the end of the reporting period. Assuming an unfavorable 10% movement in the levels of foreign exchanges relative to the New Taiwan dollar, the net income for the years ended December 31, 2017 and 2016 would have decreased by NT\$849,248 thousand and NT\$116,345 thousand, respectively, and the other comprehensive income for the year ended December 31, 2017 would have decreased by NT\$265,875 thousand.

Interest rate risk

The Company is exposed to interest rate risk primarily related to its outstanding debt at fixed interest rates and investments in fixed income securities. All of the Company's bonds payable have fixed interest rates and are measured at amortized cost. As such, changes in interest rates would not affect the future cash flows.

The Company classified its investments in fixed income securities as held-to-maturity financial assets. Because held-to-maturity fixed income securities are measured at amortized cost, changes in interest rates would not affect the fair value.

Other price risk

The Company is exposed to equity price risk arising from available-for-sale equity investments.

Assuming a hypothetical decrease of 5% in prices of the equity investments at the end of the reporting period for the years ended December 31, 2017 and 2016, the other comprehensive income would have decreased by NT\$120,835 thousand and NT\$141,570 thousand, respectively.

d. Credit risk management

Credit risk refers to the risk that a counterparty will default on its contractual obligations resulting in financial loss to the Company. The Company is exposed to credit risk from operating activities, primarily trade receivables, and from investing activities, primarily deposits, fixed-income investments and other financial instruments with banks. Credit risk is managed separately for business related and financial related exposures. As of the end of the reporting period, the Company's maximum credit risk exposure is mainly from the carrying amount of financial assets.

Business related credit risk

The Company has considerable trade receivables outstanding with its customers worldwide. A substantial majority of the Company's outstanding trade receivables are not covered by collateral or credit insurance. While the Company has procedures to monitor and limit exposure to credit risk on trade receivables, there can be no assurance such procedures will effectively limit its credit risk and avoid losses. This risk is heightened during periods when economic conditions worsen.

As of December 31, 2017 and 2016, the Company's ten largest customers both accounted for 74% of accounts receivable. The Company believes the concentration of credit risk is not material for the remaining accounts receivable.

Financial credit risk

The Company regularly monitors and reviews the concentration limit applied to counterparties and adjusts the concentration limit according to market conditions and the credit standing of the counterparties. The Company mitigates its exposure by limiting the exposure to any individual counterparty and by selecting counterparties with investment-grade credit ratings.

e. Liquidity risk management

The objective of liquidity risk management is to ensure the Company has sufficient liquidity to fund its business requirements associated with existing operations over the next 12 months. The Company manages its liquidity risk by maintaining adequate cash and cash equivalent, short-term available-for-sale financial assets and short-term held-to-maturity financial assets.

The table below summarizes the maturity profile of the Company's financial liabilities based on contractual undiscounted payments, including principal and interest.

	Less Than 1 Year	2-3 Years	4-5 Years	5+ Years	Total
<u>December 31, 2017</u>					
<u>Non-derivative financial liabilities</u>					
Short-term loans	\$ 63,801,977	\$ -	\$ -	\$ -	\$ 63,801,977
Accounts payable (including related parties)	30,434,887	-	-	-	30,434,887
Payables to contractors and equipment suppliers	50,363,976	-	-	-	50,363,976
Accrued expenses and other current liabilities	20,561,411	-	-	-	20,561,411
Bonds payable	25,791,842	68,378,787	7,777,715	18,203,601	120,151,945
Guarantee deposits (including those classified under accrued expenses and other current liabilities)	<u>6,046,643</u>	<u>7,498,840</u>	<u>83,639</u>	<u>-</u>	<u>13,629,122</u>
	<u>197,000,736</u>	<u>75,877,627</u>	<u>7,861,354</u>	<u>18,203,601</u>	<u>298,943,318</u>
<u>Derivative financial instruments</u>					
Forward exchange contracts					
Outflows	48,169,933	-	-	-	48,169,933
Inflows	<u>(48,530,989)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(48,530,989)</u>
	<u>(361,056)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(361,056)</u>
	<u>\$ 196,639,680</u>	<u>\$ 75,877,627</u>	<u>\$ 7,861,354</u>	<u>\$ 18,203,601</u>	<u>\$ 298,582,262</u>
<u>December 31, 2016</u>					
<u>Non-derivative financial liabilities</u>					
Short-term loans	\$ 57,974,562	\$ -	\$ -	\$ -	\$ 57,974,562
Accounts payable (including related parties)	29,373,925	-	-	-	29,373,925
Payables to contractors and equipment suppliers	62,449,143	-	-	-	62,449,143
Accrued expenses and other current liabilities	19,485,257	-	-	-	19,485,257
Bonds payable	40,067,749	61,831,777	35,340,742	22,979,426	160,219,694
Guarantee deposits (including those classified under accrued expenses and other current liabilities)	<u>6,439,800</u>	<u>13,056,592</u>	<u>1,609,950</u>	<u>-</u>	<u>21,106,342</u>
	<u>215,790,436</u>	<u>74,888,369</u>	<u>36,950,692</u>	<u>22,979,426</u>	<u>350,608,923</u>
<u>Derivative financial instruments</u>					
Forward exchange contracts					
Outflows	26,366,343	-	-	-	26,366,343
Inflows	<u>(26,490,320)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(26,490,320)</u>
	<u>(123,977)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(123,977)</u>
Cross currency swap contracts					
Outflows	5,478,066	-	-	-	5,478,066
Inflows	<u>(5,487,600)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(5,487,600)</u>
	<u>(9,534)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(9,534)</u>
	<u>\$ 215,656,925</u>	<u>\$ 74,888,369</u>	<u>\$ 36,950,692</u>	<u>\$ 22,979,426</u>	<u>\$ 350,475,412</u>

f. Fair value of financial instruments

1) Fair value measurements recognized in the parent company only balance sheets

Fair value measurements are grouped into Levels 1 to 3 based on the degree to which the fair value is observable:

- Level 1 fair value measurements are those derived from quoted prices (unadjusted) in active markets for identical assets or liabilities;

- Level 2 fair value measurements are those derived from inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices); and
- Level 3 fair value measurements are those derived from valuation techniques that include inputs for the asset or liability that are not based on observable market data (unobservable inputs).

2) Fair value of financial instruments that are measured at fair value on a recurring basis

Fair value hierarchy

The following table presents the Company's financial assets and liabilities measured at fair value on a recurring basis:

	December 31, 2017			
	Level 1	Level 2	Level 3	Total
<u>Financial assets at FVTPL</u>				
Held for trading				
Forward exchange contracts	\$ _____ -	\$ 373,351	\$ _____ -	\$ 373,351
<u>Available-for-sale financial assets</u>				
Publicly traded stocks	\$ 2,393,555	\$ _____ -	\$ _____ -	\$ 2,393,555
<u>Hedging derivative financial assets</u>				
Cash flow hedges				
Forward exchange contracts	\$ _____ -	\$ 7,378	\$ _____ -	\$ 7,378
<u>Financial liabilities at FVTPL</u>				
Held for trading				
Forward exchange contracts	\$ _____ -	\$ 18,764	\$ _____ -	\$ 18,764
<u>Hedging derivative financial liabilities</u>				
Cash flow hedges				
Forward exchange contracts	\$ _____ -	\$ 15,562	\$ _____ -	\$ 15,562
	December 31, 2016			
	Level 1	Level 2	Level 3	Total
<u>Financial assets at FVTPL</u>				
Held for trading				
Forward exchange contracts	\$ -	\$ 140,094	\$ -	\$ 140,094
Cross currency swap contracts	_____ -	10,976	_____ -	10,976
	\$ _____ -	\$ 151,070	\$ _____ -	\$ 151,070
<u>Available-for-sale financial assets</u>				
Publicly traded stocks	\$ 2,843,952	\$ _____ -	\$ _____ -	\$ 2,843,952
<u>Financial liabilities at FVTPL</u>				
Held for trading				
Forward exchange contracts	\$ _____ -	\$ 62,441	\$ _____ -	\$ 62,441

There were no transfers between Level 1 and Level 2 for the years ended December 31, 2017 and 2016, respectively.

There were no purchases and disposals for assets classified as Level 3 for the years ended December 31, 2017 and 2016, respectively.

Valuation techniques and assumptions used in Level 2 fair value measurement

The fair values of financial assets and financial liabilities are determined as follows:

- Forward exchange contracts and cross currency swap contracts are measured using forward exchange rates and the discounted curves that are derived from quoted market prices.

3) Fair value of financial instruments that are not measured at fair value

Except as detailed in the following table, the Company considers that the carrying amounts of financial instruments in the parent company only financial statements that are not measured at fair value approximate their fair values.

	<u>December 31, 2017</u>		<u>December 31, 2016</u>	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
<u>Financial assets</u>				
Held-to-maturity financial assets				
Commercial paper	\$ -	\$ -	\$ 8,628,176	\$ 8,630,769
Corporate bonds	-	-	2,819,362	2,821,660
<u>Financial liabilities</u>				
Measured at amortized cost				
Bonds payable	116,100,000	118,020,699	154,200,000	155,930,125

Fair value hierarchy

The table below sets out the fair value hierarchy for the Company's assets and liabilities which are not required to measure at fair value:

	<u>December 31, 2017</u>			<u>Total</u>
	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	
<u>Financial liabilities</u>				
Measured at amortized cost				
Bonds payable	\$ -	\$ 118,020,699	\$ -	\$ 118,020,699
<u>December 31, 2016</u>				
	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Total</u>
<u>Financial assets</u>				
Held-to-maturity securities				
Commercial paper	\$ -	\$ 8,630,769	\$ -	\$ 8,630,769
Corporate bonds	-	2,821,660	-	2,821,660
	\$ -	\$ 11,452,429	\$ -	\$ 11,452,429
<u>Financial liabilities</u>				
Measured at amortized cost				
Bonds payable	\$ -	\$ 155,930,125	\$ -	\$ 155,930,125

In the fourth quarter of 2017, the Company reassessed the bid-ask spread and the transaction volume of the fixed income securities in determining whether there were quoted prices in active markets. Accordingly, the Company classified the fair value hierarchy levels of corporate bonds and bonds payable as level 2. To have consistent comparative basis, the Company had revised prior year classification from level 1 to level 2.

Valuation techniques and assumptions used in Level 2 fair value measurement

The fair values of corporate bonds are determined by quoted market prices.

The fair value of commercial paper is determined by the present value of future cash flows based on the discounted curves that are derived from the quoted market prices.

The fair value of the Company's bonds payable is determined by quoted market prices.

32. RELATED PARTY TRANSACTIONS

The significant transactions between the Company and its related parties, other than those disclosed in other notes, are summarized as follows:

a. Related party name and categories

<u>Related Party Name</u>	<u>Related Party Categories</u>
TSMC Global	Subsidiaries
TSMC China	Subsidiaries
TSMC Nanjing	Subsidiaries
VisEra Tech	Subsidiaries
TSMC North America	Subsidiaries
TSMC Europe	Subsidiaries
TSMC Japan	Subsidiaries
TSMC Korea	Subsidiaries
TSMC Solar Europe GmbH	Subsidiaries
TSMC Design Technology Canada Inc. (TSMC Canada)	Indirect Subsidiaries
TSMC Technology, Inc. (TSMC Technology)	Indirect Subsidiaries
WaferTech, LLC (WaferTech)	Indirect Subsidiaries
GUC	Associates
VIS	Associates
SSMC	Associates
Xintec	Associates
TSMC Education and Culture Foundation	Other related parties
TSMC Charity Foundation	Other related parties

b. Net revenue

		Years Ended December 31	
		2017	2016
<u>Item</u>	<u>Related Party Name/Categories</u>		
Net revenue from sale of goods	TSMC North America	\$ 650,351,537	\$ 633,917,888
	Associates	6,941,089	5,084,397
	Other subsidiaries	487,112	5,687
	Other related parties	<u>133</u>	<u>-</u>
		<u>\$ 657,779,871</u>	<u>\$ 639,007,972</u>
<u>Item</u>	<u>Related Party Categories</u>		
Net revenue from royalties	Associates	\$ 482,537	\$ 516,749
	Subsidiaries	<u>264</u>	<u>355</u>
		<u>\$ 482,801</u>	<u>\$ 517,104</u>

c. Purchases

		Years Ended December 31	
		2017	2016
	<u>Related Party Categories</u>		
	Subsidiaries	\$ 30,843,591	\$ 27,788,470
	Associates	<u>9,903,917</u>	<u>10,107,719</u>
		<u>\$ 40,747,508</u>	<u>\$ 37,896,189</u>

d. Receivables from related parties

		December 31,	December 31,
		2017	2016
<u>Item</u>	<u>Related Party Name/Categories</u>		
Receivables from related parties	TSMC North America	\$ 91,329,510	\$ 85,874,678
	Associates	777,730	931,787
	Other subsidiaries	<u>34,597</u>	<u>39,105</u>
		<u>\$ 92,141,837</u>	<u>\$ 86,845,570</u>
Other receivables from related parties	TSMC Nanjing	\$ 1,754,484	\$ -
	TSMC North America	1,246,101	800,657
	Associates	127,459	146,621
	Other subsidiaries	<u>15,828</u>	<u>1,522</u>
		<u>\$ 3,143,872</u>	<u>\$ 948,800</u>

e. Payables to related parties

		December 31, 2017	December 31, 2016
<u>Item</u>	<u>Related Party Name/Categories</u>		
Payables to related parties	TSMC China	\$ 1,440,141	\$ 1,775,774
	WaferTech	1,328,094	1,303,795
	Xintec	817,876	123,586
	VIS	409,950	587,407
	SSMC	406,959	505,655
	Other subsidiaries	405,127	499,679
	Other related parties	12,000	-
	Other associates	9,517	44,105
		<u>\$ 4,829,664</u>	<u>\$ 4,840,001</u>

f. Disposal of property, plant and equipment

	Proceeds	
	Years Ended December 31	
	2017	2016
<u>Related Party Name/Categories</u>		
TSMC Nanjing	\$ 14,336,846	\$ -
Other subsidiaries	120,790	10,622
Associates	1,355	-
	<u>\$ 14,458,991</u>	<u>\$ 10,622</u>

	Gains	
	Years Ended December 31	
	2017	2016
<u>Related Party Name/Categories</u>		
TSMC Nanjing	\$ 81,272	\$ -
Other subsidiaries	50,361	49,108
Associates	1,355	-
	<u>\$ 132,988</u>	<u>\$ 49,108</u>

	Deferred Gains from Disposal of Property, Plant and Equipment	
	December 31, 2017	December 31, 2016
<u>Related Party Name/Categories</u>		
TSMC Nanjing	\$ 574,633	\$ -
Other subsidiaries	192,554	144,689
	<u>\$ 767,187</u>	<u>\$ 144,689</u>

g. Others

<u>Item</u>	<u>Related Party Name/Categories</u>	<u>Years Ended December 31</u>	
		<u>2017</u>	<u>2016</u>
Manufacturing expenses	Associates	\$ 2,098,141	\$ 1,376,763
	Subsidiaries	<u>9,318</u>	<u>15,954</u>
		<u>\$ 2,107,459</u>	<u>\$ 1,392,717</u>
Research and development expenses	Subsidiaries	\$ 2,205,906	\$ 2,179,813
	Associates	<u>69,841</u>	<u>161,671</u>
		<u>\$ 2,275,747</u>	<u>\$ 2,341,484</u>
Marketing expenses - commission	TSMC Europe	\$ 437,561	\$ 451,801
	Other subsidiaries	<u>370,243</u>	<u>421,316</u>
		<u>\$ 807,804</u>	<u>\$ 873,117</u>
General and administrative expenses	Other related parties	\$ 101,500	\$ 60,000
	Subsidiaries	<u>3,910</u>	<u>-</u>
		<u>\$ 105,410</u>	<u>\$ 60,000</u>

The sales prices and payment terms to related parties were not significantly different from those of sales to third parties. For other related party transactions, price and terms were determined in accordance with mutual agreements.

The Company leased factory and office from associates. The lease terms and prices were both determined in accordance with mutual agreements. The rental expenses were paid to associates monthly; the related expenses were both classified under manufacturing expenses.

The Company deferred the disposal gain/loss derived from sales of property, plant and equipment to related parties using equity method, and then recognized such gain/loss over the depreciable lives of the disposed assets.

h. Compensation of key management personnel

The compensation to directors and other key management personnel for the years ended December 31, 2017 and 2016 were as follows:

	<u>Years Ended December 31</u>	
	<u>2017</u>	<u>2016</u>
Short-term employee benefits	\$ 2,071,171	\$ 1,926,654
Post-employment benefits	<u>3,375</u>	<u>3,617</u>
	<u>\$ 2,074,546</u>	<u>\$ 1,930,271</u>

The compensation to directors and other key management personnel were determined by the Compensation Committee of the Company in accordance with the individual performance and the market trends.

33. SIGNIFICANT OPERATING LEASE ARRANGEMENTS

The Company's major significant operating leases are arrangements on several parcels of land and machinery and equipment.

The Company expensed the lease payments as follows:

	<u>Years Ended December 31</u>	
	<u>2017</u>	<u>2016</u>
Minimum lease payments	<u>\$ 1,748,190</u>	<u>\$ 815,178</u>

Future minimum lease payments under the above non-cancellable operating leases are as follows:

	<u>December 31,</u> <u>2017</u>	<u>December 31,</u> <u>2016</u>
Not later than 1 year	\$ 2,622,896	\$ 777,233
Later than 1 year and not later than 5 years	4,340,428	2,683,437
Later than 5 years	<u>7,849,690</u>	<u>5,300,624</u>
	<u>\$ 14,813,014</u>	<u>\$ 8,761,294</u>

34. SIGNIFICANT CONTINGENT LIABILITIES AND UNRECOGNIZED COMMITMENTS

Significant contingent liabilities and unrecognized commitments of the Company as of the end of the reporting period, excluding those disclosed in other notes, were as follows:

- a. Under a technical cooperation agreement with Industrial Technology Research Institute, the R.O.C. Government or its designee approved by the Company can use up to 35% of the Company's capacity provided the Company's outstanding commitments to its customers are not prejudiced. The term of this agreement is for five years beginning from January 1, 1987 and is automatically renewed for successive periods of five years unless otherwise terminated by either party with one year prior notice. As of December 31, 2017, the R.O.C. Government did not invoke such right.
- b. Under a Shareholders Agreement entered into with Philips and EDB Investments Pte Ltd. on March 30, 1999, the parties formed a joint venture company, SSMC, which is an integrated circuit foundry in Singapore. The Company's equity interest in SSMC was 32%. Nevertheless, in September 2006, Philips spun-off its semiconductor subsidiary which was renamed as NXP B.V. Further, the Company and NXP B.V. purchased all the SSMC shares owned by EDB Investments Pte Ltd. pro rata according to the Shareholders Agreement on November 15, 2006. After the purchase, the Company and NXP B.V. currently own approximately 39% and 61% of the SSMC shares, respectively. The Company and NXP B.V. are required, in the aggregate, to purchase at least 70% of SSMC's capacity, but the Company alone is not required to purchase more than 28% of the capacity. If any party defaults on the commitment and the capacity utilization of SSMC falls below a specific percentage of its capacity, the defaulting party is required to compensate SSMC for all related unavoidable costs. There was no default from the aforementioned commitment as of December 31, 2017.

- c. The Company joined the Customer Co-Investment Program of ASML and entered into the investment agreement in August 2012. The agreement includes an investment of EUR837,816 thousand by TSMC Global to acquire 5% of ASML's equity with a lock-up period of 2.5 years. TSMC Global has acquired the aforementioned equity on October 31, 2012. The lock-up period expired on May 1, 2015 and as of October 8, 2015, all ASML shares had been disposed.

Both parties also signed the research and development funding agreement whereby the Company shall provide EUR276,000 thousand to ASML's research and development programs from 2013 to 2017. As of September 30, 2017, the amount has been fully paid.

- d. In May 2017, Mr. Uri Cohen filed a complaint in the U.S. District Court for the Eastern District of Texas alleging that the Company, TSMC North America and other companies infringe four U.S. patents. In response, the Company and TSMC North America filed a declaratory judgment complaint against Cohen in the U.S. District Court for the Northern District of California seeking a judgment declaring that there is no infringement of the same four patents. The Company also filed a motion to transfer Cohen's lawsuit in the U.S. District Court for the Eastern District of Texas to the U.S. District Court for the Northern District of California. Cohen agreed to the transfer, and as of December 2017, the cases are consolidated and pending in the U.S. District Court for the Northern District of California. The outcome cannot be determined and the Company cannot make a reliable estimate of the contingent liability at this time.
- e. On September 28, 2017, the Company was contacted by the European Commission ("Commission") for information and documents concerning alleged anti-competitive practices of the Company in relation to semiconductor sales. This proceeding is still in its preliminary stage, and it is premature to predict how the case will proceed, the outcome of the proceeding or its impact. The Company will continue to cooperate fully with the Commission.
- f. The Company entered into long-term purchase agreements of silicon wafer with multiple suppliers. The relative minimum purchase quantity and price are specified in the agreements.
- g. As of December 31, 2017, the Company provided financial guarantees of NT\$34,107,850 thousand to its subsidiary, TSMC Global, in respect of the issuance of unsecured corporate bonds.
- h. As of December 31, 2017, the Company provided endorsement guarantees of NT\$2,468,023 thousand to its subsidiary, TSMC North America, in respect of providing endorsement guarantees for office leasing contract.

35. SIGNIFICANT LOSS FROM DISASTER

On February 6, 2016, an earthquake struck Taiwan. The resulting damage was mostly to inventories and equipment. The Company recognized earthquake losses of NT\$2,492,138 thousand, net of insurance claim, for the year ended December 31, 2016. Such losses were primarily included in cost of revenue. The related insurance claim was finalized in the first quarter of 2017, and the accumulated earthquake losses were NT\$2,386,824 thousand, net of insurance claim. The Company recognized a reduction of such losses of NT\$105,314 thousand for the three months ended March 31, 2017.

36. EXCHANGE RATE INFORMATION OF FOREIGN-CURRENCY FINANCIAL ASSETS AND LIABILITIES

The following information was summarized according to the foreign currencies other than the functional currency of the Company. The exchange rates disclosed were used to translate the foreign currencies into the functional currency. The significant financial assets and liabilities denominated in foreign currencies were as follows:

	Foreign Currencies (In Thousands)	Exchange Rate (Note)	Carrying Amount (In Thousands)
<u>December 31, 2017</u>			
<u>Financial assets</u>			
Monetary items			
USD	\$ 5,494,191	29.659	\$ 162,952,207
EUR	236,279	35.45	8,376,078
JPY	34,012,314	0.2629	8,941,837
Non-monetary items			
HKD	285,336	3.80	1,084,276
<u>Financial liabilities</u>			
Monetary items			
USD	3,880,441	29.659	115,090,012
EUR	410,686	35.45	14,558,807
JPY	35,365,911	0.2629	9,297,698
<u>December 31, 2016</u>			
<u>Financial assets</u>			
Monetary items			
USD	4,583,146	32.199	147,572,712
EUR	19,545	34.30	670,405
JPY	36,963,829	0.2775	10,257,463
Non-monetary items			
HKD	257,056	4.15	1,066,780
<u>Financial liabilities</u>			
Monetary items			
USD	3,981,333	32.199	128,194,952
EUR	183,821	34.30	6,305,052
JPY	60,843,106	0.2775	16,883,962

Note: Exchange rate represents the number of N.T. dollars for which one foreign currency could be exchanged.

Please refer to the parent company only statements of comprehensive income for the total of realized and unrealized foreign exchange gain and loss for the years ended December 31, 2017 and 2016, respectively. Since there were varieties of foreign currency transactions of the Company, the Company was unable to disclose foreign exchange gain (loss) towards each foreign currency with significant impact.

37. ADDITIONAL DISCLOSURES

Following are the additional disclosures required by the Securities and Futures Bureau for the Company:

- a. Financings provided: Please see Table 1 attached;
- b. Endorsement/guarantee provided: Please see Table 2 attached;
- c. Marketable securities held (excluding investments in subsidiaries and associates): Please see Table 3 attached;
- d. Marketable securities acquired and disposed of at costs or prices of at least NT\$300 million or 20% of the paid-in capital: Please see Table 4 attached;
- e. Acquisition of individual real estate properties at costs of at least NT\$300 million or 20% of the paid-in capital: Please see Table 5 attached;
- f. Disposal of individual real estate properties at prices of at least NT\$300 million or 20% of the paid-in capital: None;
- g. Total purchases from or sales to related parties of at least NT\$100 million or 20% of the paid-in capital: Please see Table 6 attached;
- h. Receivables from related parties amounting to at least NT\$100 million or 20% of the paid-in capital: Please see Table 7 attached;
- i. Information about the derivative financial instruments transaction: Please see Notes 7 and 9;
- j. Names, locations, and related information of investees over which the Company exercises significant influence (excluding information on investment in mainland China): Please see Table 8 attached;
- k. Information on investment in mainland China
 - 1) The name of the investee in mainland China, the main businesses and products, its issued capital, method of investment, information on inflow or outflow of capital, percentage of ownership, income (losses) of the investee, share of profits/losses of investee, ending balance, amount received as dividends from the investee, and the limitation on investee: Please see Table 9 attached.
 - 2) Significant direct or indirect transactions with the investee, its prices and terms of payment, unrealized gain or loss, and other related information which is helpful to understand the impact of investment in mainland China on financial reports: Please see Note 32.

38. OPERATING SEGMENTS INFORMATION

The Company has provided the operating segments disclosure in the consolidated financial statements.

Taiwan Semiconductor Manufacturing Company Limited and Investees

FINANCINGS PROVIDED
FOR THE YEAR ENDED DECEMBER 31, 2017

(Amounts in Thousands of New Taiwan Dollars, Unless Specified Otherwise)

No.	Financing Company	Counter-party	Financial Statement Account	Related Party	Maximum Balance for the Period (Foreign Currencies in Thousands) (Note 3)	Ending Balance (Foreign Currencies in Thousands) (Note 3)	Amount Actually Drawn (Foreign Currencies in Thousands)	Interest Rate	Nature for Financing (Note 4)	Transaction Amounts	Reason for Financing (Note 4)	Allowance for Bad Debt	Collateral		Financing Limits for Each Borrowing Company (Notes 1 and 2)	Financing Company's Total Financing Amount Limits (Notes 1 and 2)
													Item	Value		
1	TSMC China	TSMC Nanjing	Other receivables from related parties	Yes	\$ 20,950,700 (RMB 4,600,000)	\$ 20,950,700 (RMB 4,600,000)	\$ 20,039,800 (RMB 4,400,000)	1.3%-1.5%	The need for short-term / long-term financing	\$ -	Operating capital	\$ -	\$ -	\$ 51,161,815	\$ 51,161,815	
2	TSMC Global	TSMC	Other receivables from related parties	Yes	44,488,500 (US\$ 1,500,000)	44,488,500 (US\$ 1,500,000)	-	1.08%-1.45%	The need for short-term financing	-	Operating capital	-	-	309,211,877	309,211,877	

Note 1: The total amount available for lending purpose shall not exceed the net worth of TSMC China. The total amount for funding for a short-term period shall not exceed ten percent (10%) of the net worth of TSMC China. In addition, the total amount lendable to any one borrower shall be no more than thirty percent (30%) of the borrower's net worth. The above restriction does not apply to the subsidiaries whose voting shares are 100% owned, directly or indirectly, by TSMC. However, the total amount lendable to any such subsidiary of TSMC shall not exceed forty percent (40%) of the net worth of TSMC China. When there is a lending for funding needs by TSMC China to TSMC, or to the subsidiaries whose voting shares are 100% owned, directly or indirectly, by TSMC, which are not located in Taiwan, the lending will not be subject to the restriction set forth in the above paragraph of this Article. Notwithstanding the foregoing, the aggregate amount available for lending to such borrowers and the total amount lendable to each of such borrowers still shall not exceed the net worth of TSMC China.

Note 2: The total amount available for lending purpose shall not exceed the net worth of TSMC Global. The total amount for funding for a short-term period shall not exceed ten percent (10%) of the net worth of TSMC Global. In addition, the total amount lendable to any one borrower shall be no more than thirty percent (30%) of the borrower's net worth. While TSMC, or foreign subsidiaries whose voting shares are 100% owned, directly or indirectly, by TSMC, will not be subject to this restriction, their total borrowing amount still shall not exceed the net worth of TSMC Global. Notwithstanding the foregoing, the aggregate amount for lending to Taiwan companies other than TSMC shall not exceed forty percent (40%) of the net worth of TSMC Global.

Note 3: The maximum balance for the period and ending balance represent the amounts approved by the Board of Directors.

Note 4: The restriction of the term of each loan for funding not exceeding one year shall not apply to inter-company loans for funding between offshore subsidiaries in which the Company holds, directly or indirectly, 100% of the voting shares.

Taiwan Semiconductor Manufacturing Company Limited and Investees

ENDORSEMENTS/GUARANTEES PROVIDED
FOR THE YEAR ENDED DECEMBER 31, 2017

(Amounts in Thousands of New Taiwan Dollars, Unless Specified Otherwise)

No.	Endorser/ Guarantee Provider	Guaranteed Party		Limits on Endorsement/ Guarantee Amount Provided to Each Party (Notes 1 and 2)	Maximum Balance for the Period (US\$ in Thousands) (Note 3)	Ending Balance (US\$ in Thousands) (Note 3)	Amount Actually Drawn (US\$ in Thousands)	Amount of Endorsement/ Guarantee Collateralized by Properties	Ratio of Accumulated Endorsement/ Guarantee to Net Equity per Latest Financial Statements	Maximum Endorsement/ Guarantee Amount Allowable (Note 2)	Guarantee Provided by Parent Company	Guarantee Provided by A Subsidiary	Guarantee Provided to Subsidiaries in Mainland China
		Name	Nature of Relationship										
0	TSMC	TSMC Global	Subsidiary	\$ 380,514,383	\$ 34,107,850 (US\$ 1,150,000)	\$ 34,107,850 (US\$ 1,150,000)	\$ 34,107,850 (US\$ 1,150,000)	\$ -	2.24%	\$ 380,514,383	Yes	No	No
		TSMC North America	Subsidiary	380,514,383	2,468,023 (US\$ 83,213)	2,468,023 (US\$ 83,213)	2,468,023 (US\$ 83,213)	-	0.16%	380,514,383	Yes	No	No

Note 1: The total amount of the guarantee provided by TSMC to any individual entity shall not exceed ten percent (10%) of TSMC's net worth, or the net worth of such entity. However, subsidiaries whose voting shares are 100% owned, directly or indirectly, by TSMC are not subject to the above restrictions after the approval of the Board of Directors.

Note 2: The total amount of guarantee shall not exceed twenty-five percent (25%) of TSMC's net worth.

Note 3: The maximum balance for the period and ending balance represent the amounts approved by the Board of Directors.

Taiwan Semiconductor Manufacturing Company Limited and Investees

MARKETABLE SECURITIES HELD
DECEMBER 31, 2017

(Amounts in Thousands of New Taiwan Dollars, Unless Specified Otherwise)

Held Company Name	Marketable Securities Type and Name	Relationship with the Company	Financial Statement Account	December 31, 2017			Note
				Shares/Units (In Thousands)	Carrying Value (Foreign Currencies in Thousands)	Percentage of Ownership (%)	
TSMC	Common stock	-	Available-for-sale financial assets	58,320	\$ 1,309,279	12	\$ 1,309,279
	Motech	-	"	21,105	1,084,276	-	1,084,276
	Semiconductor Manufacturing International Corporation	-	Financial assets carried at cost	21,230	193,584	10	193,584
	United Industrial Gases Co., Ltd.	-	"	10,500	105,000	7	105,000
	Shin-Etsu Handotai Taiwan Co., Ltd.	-	"	11,124	99,041	6	99,041
	Global Investment Holding Inc.	-	"	1,152	4,041	2	4,041
	W.K. Technology Fund IV	-	"	-	-	-	-
	Fund	-	Financial assets carried at cost	-	6,975	12	6,975
	Horizon Ventures Fund	-	"	-	6,410	1	6,410
	Crimson Asia Capital	-	"	-	-	-	-
TSMC Partners	Common stock	-	Financial assets carried at cost	10,440	US\$ 65,000	25	US\$ 65,000
	Telia Innovations Mcube Inc.	-	"	6,333	-	12	-
TSMC Global	Fund	-	Financial assets carried at cost	-	US\$ 8,607	9	US\$ 8,607
	China Walden Venture Investments II, L.P. Shanghai Walden Venture Capital Enterprise	-	"	-	US\$ 4,270	6	US\$ 4,270
TSMC Global	Corporate bond	-	Available-for-sale financial assets	-	US\$ 43,115	N/A	US\$ 43,115
	Morgan Stanley	-	"	-	US\$ 42,703	N/A	US\$ 42,703
	Bank of America Corp	-	"	-	US\$ 40,101	N/A	US\$ 40,101
	JPMorgan Chase & Co	-	"	-	US\$ 38,465	N/A	US\$ 38,465
	Goldman Sachs Group Inc/The	-	"	-	US\$ 29,911	N/A	US\$ 29,911
	Citigroup Inc	-	"	-	US\$ 26,867	N/A	US\$ 26,867
	AT&T Inc	-	"	-	US\$ 18,533	N/A	US\$ 18,533
	Ford Motor Credit Co LLC	-	"	-	US\$ 18,298	N/A	US\$ 18,298
	Verizon Communications Inc	-	"	-	US\$ 17,024	N/A	US\$ 17,024
	BAT Capital Corp	-	"	-	US\$ 16,463	N/A	US\$ 16,463
	Apple Inc	-	"	-	US\$ 14,412	N/A	US\$ 14,412
	PNC Bank NA	-	"	-	US\$ 13,623	N/A	US\$ 13,623
	Credit Suisse AG/New York NY	-	"	-	US\$ 13,406	N/A	US\$ 13,406
	Anheuser-Busch InBev Finance Inc	-	"	-	US\$ 12,214	N/A	US\$ 12,214
	Tyson Foods Inc	-	"	-	US\$ 12,015	N/A	US\$ 12,015
	Southern Co/The	-	"	-	US\$ 11,097	N/A	US\$ 11,097
	AbbVie Inc	-	"	-	US\$ 11,073	N/A	US\$ 11,073
	Asian Development Bank	-	"	-	US\$ 10,791	N/A	US\$ 10,791
	Mitsubishi UFJ Financial Group Inc	-	"	-	US\$ 10,465	N/A	US\$ 10,465
	Capital One NA/McLean VA	-	"	-	US\$ 10,464	N/A	US\$ 10,464
	Westpac Banking Corp	-	"	-	US\$ 10,383	N/A	US\$ 10,383
	Cardinal Health Inc	-	"	-	US\$ 10,264	N/A	US\$ 10,264
	BP Capital Markets PLC	-	"	-	US\$ 10,018	N/A	US\$ 10,018
	CVS Health Corp	-	"	-	US\$ 9,868	N/A	US\$ 9,868
	Wells Fargo & Co	-	"	-	US\$ 9,862	N/A	US\$ 9,862
	Svenska Handelsbanken AB	-	"	-	US\$ 9,620	N/A	US\$ 9,620
	Aviation Capital Group Corp	-	"	-	US\$ 9,410	N/A	US\$ 9,410
	American International Group Inc	-	"	-	US\$ 9,396	N/A	US\$ 9,396
Sumitomo Mitsui Financial Group Inc	-	"	-	US\$ 9,301	N/A	US\$ 9,301	
Microsoft Corp	-	"	-	-	-	-	-

(Continued)

Held Company Name	Marketable Securities Type and Name	Relationship with the Company	Financial Statement Account	December 31, 2017			Note
				Shares/Units (In Thousands)	Carrying Value (Foreign Currencies in Thousands)	Percentage of Ownership (%)	
TSMC Global	HSBC Holdings PLC	-	Available-for-sale financial assets	-	US\$ 9,099	N/A	US\$ 9,099
	ERAC USA Finance LLC	-	"	-	US\$ 8,759	N/A	US\$ 8,759
	Dominion Energy Inc	-	"	-	US\$ 8,626	N/A	US\$ 8,626
	Hewlett Packard Enterprise Co	-	"	-	US\$ 8,604	N/A	US\$ 8,604
	Ventias Realty LP / Ventias Capital Corp	-	"	-	US\$ 8,506	N/A	US\$ 8,506
	Duke Energy Corp	-	"	-	US\$ 8,337	N/A	US\$ 8,337
	Daimler Finance North America LLC	-	"	-	US\$ 8,041	N/A	US\$ 8,041
	International Bank for Reconstruction & Development	-	"	-	US\$ 7,992	N/A	US\$ 7,992
	Huntington National Bank/The	-	"	-	US\$ 7,873	N/A	US\$ 7,873
	Oracle Corp	-	"	-	US\$ 7,794	N/A	US\$ 7,794
	UBS Group Funding Switzerland AG	-	"	-	US\$ 7,505	N/A	US\$ 7,505
	ANZ New Zealand Int'l Ltd/London	-	"	-	US\$ 7,353	N/A	US\$ 7,353
	Toronto-Dominion Bank/The	-	"	-	US\$ 7,327	N/A	US\$ 7,327
	Deutsche Telekom International Finance BV	-	"	-	US\$ 7,252	N/A	US\$ 7,252
	ABN AMRO Bank NV	-	"	-	US\$ 7,100	N/A	US\$ 7,100
	Stiemens Financieringsmaatschappij NV	-	"	-	US\$ 7,073	N/A	US\$ 7,073
	Banque Federative dt Credit Mutuel SA	-	"	-	US\$ 7,072	N/A	US\$ 7,072
	Reckitt Benckiser Treasury Services PLC	-	"	-	US\$ 7,010	N/A	US\$ 7,010
	Barclays PLC	-	"	-	US\$ 6,994	N/A	US\$ 6,994
	Hyundai Capital America	-	"	-	US\$ 6,971	N/A	US\$ 6,971
	Air Lease Corp	-	"	-	US\$ 6,971	N/A	US\$ 6,971
	Marriott International Inc/MD	-	"	-	US\$ 6,900	N/A	US\$ 6,900
	21st Century Fox America Inc	-	"	-	US\$ 6,882	N/A	US\$ 6,882
	QUALCOMM Inc	-	"	-	US\$ 6,866	N/A	US\$ 6,866
	Citizens Bank NA/Providence RI	-	"	-	US\$ 6,726	N/A	US\$ 6,726
	Fifth Third Bancorp	-	"	-	US\$ 6,543	N/A	US\$ 6,543
	Skandinaviska Enskilda Banken AB	-	"	-	US\$ 6,531	N/A	US\$ 6,531
	Mizaho Financial Group Inc	-	"	-	US\$ 6,484	N/A	US\$ 6,484
	Reliance Standard Life Global Funding II	-	"	-	US\$ 6,483	N/A	US\$ 6,483
	Banco Santander SA	-	"	-	US\$ 6,347	N/A	US\$ 6,347
	Dow Chemical Co/The	-	"	-	US\$ 6,336	N/A	US\$ 6,336
	Bank of New York Mellon Corp/The	-	"	-	US\$ 6,306	N/A	US\$ 6,306
	Welltower Inc	-	"	-	US\$ 6,301	N/A	US\$ 6,301
	Santander UK Group Holdings PLC	-	"	-	US\$ 6,219	N/A	US\$ 6,219
	Celgene Corp	-	"	-	US\$ 6,181	N/A	US\$ 6,181
	Northrop Grumman Corp	-	"	-	US\$ 6,180	N/A	US\$ 6,180
	SMBC Aviation Capital Finance DAC	-	"	-	US\$ 5,938	N/A	US\$ 5,938
	Manufacturers & Traders Trust Co	-	"	-	US\$ 5,925	N/A	US\$ 5,925
	KeyCorp	-	"	-	US\$ 5,901	N/A	US\$ 5,901
	UBS AG/London	-	"	-	US\$ 5,858	N/A	US\$ 5,858
	NextEra Energy Capital Holdings Inc	-	"	-	US\$ 5,847	N/A	US\$ 5,847
	Schlumberger Holdings Corp	-	"	-	US\$ 5,769	N/A	US\$ 5,769
	Danone SA	-	"	-	US\$ 5,768	N/A	US\$ 5,768
	Aspen Insurance Holdings Ltd	-	"	-	US\$ 5,723	N/A	US\$ 5,723
	Santander UK PLC	-	"	-	US\$ 5,675	N/A	US\$ 5,675
	Toyota Motor Credit Corp	-	"	-	US\$ 5,643	N/A	US\$ 5,643
	Penske Truck Leasing Co Lp / PTL Finance Corp	-	"	-	US\$ 5,605	N/A	US\$ 5,605
	Nordea Bank AB	-	"	-	US\$ 5,571	N/A	US\$ 5,571
	ITC Holdings Corp	-	"	-	US\$ 5,536	N/A	US\$ 5,536
	McComick & Co Inc/MD	-	"	-	US\$ 5,297	N/A	US\$ 5,297
	Montpelier Re Holdings Ltd	-	"	-	US\$ 5,259	N/A	US\$ 5,259
	Angen Inc	-	"	-	US\$ 5,243	N/A	US\$ 5,243
	Jackson National Life Global Funding	-	"	-	US\$ 5,145	N/A	US\$ 5,145
	Branch Banking & Trust Co	-	"	-	US\$ 5,089	N/A	US\$ 5,089
	Cigna Corp	-	"	-	US\$ 5,065	N/A	US\$ 5,065
	Rockwell Collins Inc	-	"	-	US\$ 5,043	N/A	US\$ 5,043
	KeyBank NA/Cleveland OH	-	"	-	US\$ 5,032	N/A	US\$ 5,032
	UBS AG/Stamford CT	-	"	-	US\$ 5,005	N/A	US\$ 5,005
	International Finance Corp	-	"	-	US\$ 5,000	N/A	US\$ 5,000

(Continued)

Held Company Name	Marketable Securities Type and Name	Relationship with the Company	Financial Statement Account	December 31, 2017				Note
				Shares/Units (In Thousands)	Carrying Value (Foreign Currencies in Thousands)	Percentage of Ownership (%)	Fair Value (Foreign Currencies in Thousands)	
TSMC Global	Analog Devices Inc	-	Available-for-sale financial assets	-	US\$ 4,948	N/A	US\$ 4,948	
	US Bancorp	-	"	-	US\$ 4,935	N/A	US\$ 4,935	
	Cox Communications Inc	-	"	-	US\$ 4,917	N/A	US\$ 4,917	
	Macquarie Group Ltd	-	"	-	US\$ 4,908	N/A	US\$ 4,908	
	Five Corners Funding Trust	-	"	-	US\$ 4,819	N/A	US\$ 4,819	
	American Express Credit Corp	-	"	-	US\$ 4,782	N/A	US\$ 4,782	
	Air Liquide Finance SA	-	"	-	US\$ 4,740	N/A	US\$ 4,740	
	Shell International Finance BV	-	"	-	US\$ 4,735	N/A	US\$ 4,735	
	Citibank NA	-	"	-	US\$ 4,724	N/A	US\$ 4,724	
	European Investment Bank	-	"	-	US\$ 4,689	N/A	US\$ 4,689	
	Ontario Teachers' Cadillac Fairview Properties Trust	-	"	-	US\$ 4,659	N/A	US\$ 4,659	
	SunTrust Banks Inc	-	"	-	US\$ 4,642	N/A	US\$ 4,642	
	Lam Research Corp	-	"	-	US\$ 4,587	N/A	US\$ 4,587	
	AEP Texas Inc	-	"	-	US\$ 4,583	N/A	US\$ 4,583	
	Ryder System Inc	-	"	-	US\$ 4,472	N/A	US\$ 4,472	
	New York Life Global Funding	-	"	-	US\$ 4,446	N/A	US\$ 4,446	
	Royal Bank of Canada	-	"	-	US\$ 4,391	N/A	US\$ 4,391	
	US Bank NA/Cincinnati OH	-	"	-	US\$ 4,367	N/A	US\$ 4,367	
	Lloyds Bank PLC	-	"	-	US\$ 4,208	N/A	US\$ 4,208	
	Enterprise Products Operating LLC	-	"	-	US\$ 4,119	N/A	US\$ 4,119	
	Exelon Generation Co LLC	-	"	-	US\$ 4,098	N/A	US\$ 4,098	
	Intel Corp	-	"	-	US\$ 3,990	N/A	US\$ 3,990	
	Mondelez International Holdings Netherlands BV	-	"	-	US\$ 3,982	N/A	US\$ 3,982	
	Intercontinental Exchange Inc	-	"	-	US\$ 3,961	N/A	US\$ 3,961	
	BB&T Corp	-	"	-	US\$ 3,939	N/A	US\$ 3,939	
	Edison International	-	"	-	US\$ 3,911	N/A	US\$ 3,911	
	Wells Fargo Bank NA	-	"	-	US\$ 3,888	N/A	US\$ 3,888	
	Express Scripts Holding Co	-	"	-	US\$ 3,864	N/A	US\$ 3,864	
	Bank of Nova Scotia	-	"	-	US\$ 3,825	N/A	US\$ 3,825	
	Suncorp-Metway Ltd	-	"	-	US\$ 3,787	N/A	US\$ 3,787	
	Husky Energy Inc	-	"	-	US\$ 3,738	N/A	US\$ 3,738	
	Alimentation Couche-Tard Inc	-	"	-	US\$ 3,736	N/A	US\$ 3,736	
	Credit Agricole SA/London	-	"	-	US\$ 3,663	N/A	US\$ 3,663	
	Canadian Imperial Bank of Commerce	-	"	-	US\$ 3,609	N/A	US\$ 3,609	
	Pacific Gas & Electric Co	-	"	-	US\$ 3,587	N/A	US\$ 3,587	
	Protective Life Global Funding	-	"	-	US\$ 3,574	N/A	US\$ 3,574	
	Nuveen Finance LLC	-	"	-	US\$ 3,568	N/A	US\$ 3,568	
	SES GLOBAL Americas Holdings GP	-	"	-	US\$ 3,521	N/A	US\$ 3,521	
	LyondellBasell Industries NV	-	"	-	US\$ 3,515	N/A	US\$ 3,515	
	Sprint Spectrum Co LLC / Sprint Spectrum Co II LLC / Sprint Spectrum Co III LLC	-	"	-	US\$ 3,481	N/A	US\$ 3,481	
	Kroger Co/The	-	"	-	US\$ 3,360	N/A	US\$ 3,360	
	State Street Corp	-	"	-	US\$ 3,355	N/A	US\$ 3,355	
	Digital Realty Trust LP	-	"	-	US\$ 3,225	N/A	US\$ 3,225	
	DXC Technology Co	-	"	-	US\$ 3,122	N/A	US\$ 3,122	
	BNP Paribas SA	-	"	-	US\$ 3,115	N/A	US\$ 3,115	
	Anheuser-Busch InBev Worldwide Inc	-	"	-	US\$ 3,020	N/A	US\$ 3,020	
	Macquarie Bank Ltd	-	"	-	US\$ 3,012	N/A	US\$ 3,012	
	Time Warner Inc	-	"	-	US\$ 2,995	N/A	US\$ 2,995	
	Enel Finance International NV	-	"	-	US\$ 2,990	N/A	US\$ 2,990	
	Anthem Inc	-	"	-	US\$ 2,924	N/A	US\$ 2,924	
	Acena Inc	-	"	-	US\$ 2,882	N/A	US\$ 2,882	
	Delta Air Lines 2007-1 Class A Pass Through Trust	-	"	-	US\$ 2,865	N/A	US\$ 2,865	
	Lloyds Banking Group PLC	-	"	-	US\$ 2,777	N/A	US\$ 2,777	
	BMW US Capital LLC	-	"	-	US\$ 2,719	N/A	US\$ 2,719	
	AutoZone Inc	-	"	-	US\$ 2,693	N/A	US\$ 2,693	
	Fifth Third Bank/Cincinnati OH	-	"	-	US\$ 2,689	N/A	US\$ 2,689	
	PartnerRe Finance B LLC	-	"	-	US\$ 2,657	N/A	US\$ 2,657	
	NiSource Finance Corp	-	"	-	US\$ 2,589	N/A	US\$ 2,589	

(Continued)

Held Company Name	Marketable Securities Type and Name	Relationship with the Company	Financial Statement Account	December 31, 2017			Note
				Shares/Units (In Thousands)	Carrying Value (Foreign Currencies in Thousands)	Percentage of Ownership (%)	
TSMC Global	Realty Income Corp	-	Available-for-sale financial assets	-	US\$ 2,556	N/A	US\$ 2,556
	Metropolitan Life Global Funding I	-	"	-	US\$ 2,519	N/A	US\$ 2,519
	Capital One Financial Corp	-	"	-	US\$ 2,501	N/A	US\$ 2,501
	Credit Suisse Group Funding Guernsey Ltd	-	"	-	US\$ 2,490	N/A	US\$ 2,490
	Wm Wrigley Jr Co	-	"	-	US\$ 2,489	N/A	US\$ 2,489
	UnitedHealth Group Inc	-	"	-	US\$ 2,485	N/A	US\$ 2,485
	Eastman Chemical Co	-	"	-	US\$ 2,439	N/A	US\$ 2,439
	Xylem Inc/NY	-	"	-	US\$ 2,426	N/A	US\$ 2,426
	EI du Pont de Nemours & Co	-	"	-	US\$ 2,337	N/A	US\$ 2,337
	NBCUniversal Media LLC	-	"	-	US\$ 2,331	N/A	US\$ 2,331
	National Australia Bank Ltd/New York	-	"	-	US\$ 2,317	N/A	US\$ 2,317
	Bank of Tokyo-Mitsubishi UFJ Ltd/The	-	"	-	US\$ 2,301	N/A	US\$ 2,301
	Simon Property Group LP	-	"	-	US\$ 2,300	N/A	US\$ 2,300
	Voya Financial Inc	-	"	-	US\$ 2,289	N/A	US\$ 2,289
	Kimco Realty Corp	-	"	-	US\$ 2,280	N/A	US\$ 2,280
	ING Groep NV	-	"	-	US\$ 2,241	N/A	US\$ 2,241
	Inter American Development Bank	-	"	-	US\$ 2,227	N/A	US\$ 2,227
	Cintas Corp No.2	-	"	-	US\$ 2,218	N/A	US\$ 2,218
	Pricoa Global Funding I	-	"	-	US\$ 2,206	N/A	US\$ 2,206
	Pro-Assurance Corp	-	"	-	US\$ 2,150	N/A	US\$ 2,150
	WR Berkley Corp	-	"	-	US\$ 2,136	N/A	US\$ 2,136
	Bank of Montreal	-	"	-	US\$ 2,130	N/A	US\$ 2,130
	HCP Inc	-	"	-	US\$ 2,113	N/A	US\$ 2,113
	Sysco Corp	-	"	-	US\$ 2,005	N/A	US\$ 2,005
	British Telecommunications PLC	-	"	-	US\$ 2,002	N/A	US\$ 2,002
	Johnson Controls International plc	-	"	-	US\$ 2,001	N/A	US\$ 2,001
	Danske Bank A/S	-	"	-	US\$ 1,962	N/A	US\$ 1,962
	American Airlines 2013-2 Class A Pass Through Trust	-	"	-	US\$ 1,960	N/A	US\$ 1,960
	Duke Realty LP	-	"	-	US\$ 1,954	N/A	US\$ 1,954
	Stryker Corp	-	"	-	US\$ 1,947	N/A	US\$ 1,947
	BPCE SA	-	"	-	US\$ 1,924	N/A	US\$ 1,924
	Magellan Midstream Partners LP	-	"	-	US\$ 1,920	N/A	US\$ 1,920
	Societe Generale SA	-	"	-	US\$ 1,913	N/A	US\$ 1,913
	Bear Stearns Cos LLC/The	-	"	-	US\$ 1,908	N/A	US\$ 1,908
	SunTrust Bank/Atlanta GA	-	"	-	US\$ 1,836	N/A	US\$ 1,836
	WestRock RKT Co	-	"	-	US\$ 1,832	N/A	US\$ 1,832
	Orange SA	-	"	-	US\$ 1,831	N/A	US\$ 1,831
	Philip Morris International Inc	-	"	-	US\$ 1,809	N/A	US\$ 1,809
	Australia & New Zealand Banking Group Ltd/New York NY	-	"	-	US\$ 1,794	N/A	US\$ 1,794
	Brambles USA Inc	-	"	-	US\$ 1,791	N/A	US\$ 1,791
	State Grid Overseas Investment Ltd	-	"	-	US\$ 1,775	N/A	US\$ 1,775
	Visa Inc	-	"	-	US\$ 1,773	N/A	US\$ 1,773
	Dominion Energy Gas Holdings LLC	-	"	-	US\$ 1,762	N/A	US\$ 1,762
	United Technologies Corp	-	"	-	US\$ 1,761	N/A	US\$ 1,761
	Regency Centers LP	-	"	-	US\$ 1,758	N/A	US\$ 1,758
	Commonwealth Bank of Australia/New York NY	-	"	-	US\$ 1,751	N/A	US\$ 1,751
	Alterra Finance LLC	-	"	-	US\$ 1,741	N/A	US\$ 1,741
	Regions Financial Corp	-	"	-	US\$ 1,708	N/A	US\$ 1,708
	Sumitomo Mitsui Trust Bank Ltd	-	"	-	US\$ 1,691	N/A	US\$ 1,691
	Sumitomo Mitsui Banking Corp	-	"	-	US\$ 1,629	N/A	US\$ 1,629
	Amazon.com Inc	-	"	-	US\$ 1,626	N/A	US\$ 1,626
	Gilead Sciences Inc	-	"	-	US\$ 1,608	N/A	US\$ 1,608
	Weyerhaeuser Co	-	"	-	US\$ 1,602	N/A	US\$ 1,602
	BAT International Finance PLC	-	"	-	US\$ 1,594	N/A	US\$ 1,594
	Principal Life Global Funding II	-	"	-	US\$ 1,588	N/A	US\$ 1,588
	Caterpillar Financial Services Corp	-	"	-	US\$ 1,536	N/A	US\$ 1,536
	Chevron Corp	-	"	-	US\$ 1,532	N/A	US\$ 1,532
	O'Reilly Automotive Inc	-	"	-	US\$ 1,527	N/A	US\$ 1,527
	PSEG Power LLC	-	"	-	US\$ 1,510	N/A	US\$ 1,510

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Held Company Name	Marketable Securities Type and Name	Relationship with the Company	Financial Statement Account	December 31, 2017				Note
				Shares/Units (In Thousands)	Carrying Value (Foreign Currencies in Thousands)	Percentage of Ownership (%)	Fair Value (Foreign Currencies in Thousands)	
TSMC Global	McKesson Corp	-	Available-for-sale financial assets	-	US\$ 1,500	N/A	US\$ 1,500	
	Hartley-Davidson Financial Services Inc	-	"	-	US\$ 1,498	N/A	US\$ 1,498	
	Standard Chartered PLC	-	"	-	US\$ 1,497	N/A	US\$ 1,497	
	CBS Corp	-	"	-	US\$ 1,495	N/A	US\$ 1,495	
	HSBC USA Inc	-	"	-	US\$ 1,470	N/A	US\$ 1,470	
	Guardian Life Global Funding	-	"	-	US\$ 1,469	N/A	US\$ 1,469	
	HSBC Bank PLC	-	"	-	US\$ 1,459	N/A	US\$ 1,459	
	Cooperative Rabobank U/ANY	-	"	-	US\$ 1,450	N/A	US\$ 1,450	
	Oesterreichische Kontrollbank AG	-	"	-	US\$ 1,444	N/A	US\$ 1,444	
	Monongahela Power Co	-	"	-	US\$ 1,429	N/A	US\$ 1,429	
	Texas Eastern Transmission LP	-	"	-	US\$ 1,408	N/A	US\$ 1,408	
	Georgia-Pacific LLC	-	"	-	US\$ 1,401	N/A	US\$ 1,401	
	AIG Global Funding	-	"	-	US\$ 1,387	N/A	US\$ 1,387	
	Choe Global Markets Inc	-	"	-	US\$ 1,366	N/A	US\$ 1,366	
	Energy Arkansas Inc	-	"	-	US\$ 1,284	N/A	US\$ 1,284	
	GATX Corp	-	"	-	US\$ 1,277	N/A	US\$ 1,277	
	Energy Corp	-	"	-	US\$ 1,273	N/A	US\$ 1,273	
	Western Union Co/The	-	"	-	US\$ 1,266	N/A	US\$ 1,266	
	Nissan Motor Acceptance Corp	-	"	-	US\$ 1,261	N/A	US\$ 1,261	
	Comcast Corp	-	"	-	US\$ 1,256	N/A	US\$ 1,256	
	Consolidated Edison Inc	-	"	-	US\$ 1,213	N/A	US\$ 1,213	
	Glencore Funding LLC	-	"	-	US\$ 1,206	N/A	US\$ 1,206	
	Sempra Energy	-	"	-	US\$ 1,179	N/A	US\$ 1,179	
	Public Service Enterprise Group Inc	-	"	-	US\$ 1,136	N/A	US\$ 1,136	
	Kreditanstalt fuer Wiederaufbau	-	"	-	US\$ 1,134	N/A	US\$ 1,134	
	ERP Operating LP	-	"	-	US\$ 1,118	N/A	US\$ 1,118	
	Wesfarmers Ltd	-	"	-	US\$ 1,095	N/A	US\$ 1,095	
	Marsh & McLennan Cos Inc	-	"	-	US\$ 1,085	N/A	US\$ 1,085	
	International Paper Co	-	"	-	US\$ 1,075	N/A	US\$ 1,075	
	Glencore Finance Canada Ltd	-	"	-	US\$ 1,067	N/A	US\$ 1,067	
	African Development Bank	-	"	-	US\$ 1,064	N/A	US\$ 1,064	
	CA Inc	-	"	-	US\$ 1,064	N/A	US\$ 1,064	
	General Electric Co	-	"	-	US\$ 1,050	N/A	US\$ 1,050	
	Merck & Co Inc	-	"	-	US\$ 1,049	N/A	US\$ 1,049	
	EOG Resources Inc	-	"	-	US\$ 1,042	N/A	US\$ 1,042	
	Commonwealth Edison Co	-	"	-	US\$ 1,037	N/A	US\$ 1,037	
	Athene Global Funding	-	"	-	US\$ 1,032	N/A	US\$ 1,032	
	Lincoln National Corp	-	"	-	US\$ 1,029	N/A	US\$ 1,029	
	Statoil ASA	-	"	-	US\$ 1,016	N/A	US\$ 1,016	
	Biogen Inc	-	"	-	US\$ 1,013	N/A	US\$ 1,013	
	Berkshire Hathaway Energy Co	-	"	-	US\$ 1,009	N/A	US\$ 1,009	
	Unum Group	-	"	-	US\$ 1,007	N/A	US\$ 1,007	
	Tencent Holdings Ltd	-	"	-	US\$ 1,006	N/A	US\$ 1,006	
	Ares Capital Corp	-	"	-	US\$ 1,004	N/A	US\$ 1,004	
	Laboratory Corp of America Holdings	-	"	-	US\$ 1,002	N/A	US\$ 1,002	
	Home Depot Inc/The	-	"	-	US\$ 1,000	N/A	US\$ 1,000	
	John Deere Capital Corp	-	"	-	US\$ 999	N/A	US\$ 999	
	JM Smucker Co/The	-	"	-	US\$ 998	N/A	US\$ 998	
	Healthcare Trust of America Holdings LP	-	"	-	US\$ 997	N/A	US\$ 997	
	Bunge Ltd Finance Corp	-	"	-	US\$ 992	N/A	US\$ 992	
	Energy Texas Inc	-	"	-	US\$ 992	N/A	US\$ 992	
	XLIT Ltd	-	"	-	US\$ 988	N/A	US\$ 988	
	Capital One Bank USA NA	-	"	-	US\$ 976	N/A	US\$ 976	
	National Retail Properties Inc	-	"	-	US\$ 965	N/A	US\$ 965	
	PPL Capital Funding Inc	-	"	-	US\$ 932	N/A	US\$ 932	
	Duke Energy Progress LLC	-	"	-	US\$ 929	N/A	US\$ 929	
	Coca-Cola Femsa SAB de CV	-	"	-	US\$ 917	N/A	US\$ 917	
	Lockheed Martin Corp	-	"	-	US\$ 905	N/A	US\$ 905	
	Southern Electric Generating Co	-	"	-	US\$ 901	N/A	US\$ 901	

(Continued)

Held Company Name	Marketable Securities Type and Name	Relationship with the Company	Financial Statement Account	December 31, 2017				Note
				Shares/Units (In Thousands)	Carrying Value (Foreign Currencies in Thousands)	Percentage of Ownership (%)	Fair Value (Foreign Currencies in Thousands)	
TSMC Global	Wal-Mart Stores Inc	-	Available-for-sale financial assets	-	US\$ 894	N/A	US\$ 894	
	CNOOC Finance Ltd	-	"	-	US\$ 884	N/A	US\$ 884	
	Federal Realty Investment Trust	-	"	-	US\$ 863	N/A	US\$ 863	
	Baker Hughes a GE Co LLC / Baker Hughes Co-Obligor Inc	-	"	-	US\$ 858	N/A	US\$ 858	
	Mastercard Inc	-	"	-	US\$ 849	N/A	US\$ 849	
	Huntington Bancshares Inc/OH	-	"	-	US\$ 836	N/A	US\$ 836	
	Consolidated Edison Co of New York Inc	-	"	-	US\$ 835	N/A	US\$ 835	
	MetLife Inc	-	"	-	US\$ 819	N/A	US\$ 819	
	Continental Airlines 2000-1 Class A-1 Pass Through Trust	-	"	-	US\$ 817	N/A	US\$ 817	
	Aon PLC	-	"	-	US\$ 812	N/A	US\$ 812	
	Nucor Corp	-	"	-	US\$ 812	N/A	US\$ 812	
	ONEOK Partners LP	-	"	-	US\$ 805	N/A	US\$ 805	
	AXIS Specialty Finance LLC	-	"	-	US\$ 802	N/A	US\$ 802	
	Activision Blizzard Inc	-	"	-	US\$ 794	N/A	US\$ 794	
	Incitec Pivot Finance LLC	-	"	-	US\$ 794	N/A	US\$ 794	
	Manulife Financial Corp	-	"	-	US\$ 793	N/A	US\$ 793	
	Spectra Energy Partners LP	-	"	-	US\$ 785	N/A	US\$ 785	
	Sinopec Capital Ltd	-	"	-	US\$ 779	N/A	US\$ 779	
	Baidu Inc	-	"	-	US\$ 753	N/A	US\$ 753	
	Crown Castle Towers LLC	-	"	-	US\$ 737	N/A	US\$ 737	
	Duke Energy Progress LLC	-	"	-	US\$ 720	N/A	US\$ 720	
	APT Pipelines Ltd	-	"	-	US\$ 719	N/A	US\$ 719	
	Baker Hughes a GE Co LLC	-	"	-	US\$ 715	N/A	US\$ 715	
	DTE Energy Co	-	"	-	US\$ 714	N/A	US\$ 714	
	American Honda Finance Corp	-	"	-	US\$ 706	N/A	US\$ 706	
	Total Capital International SA	-	"	-	US\$ 700	N/A	US\$ 700	
	Norfolk Southern Railway Co	-	"	-	US\$ 700	N/A	US\$ 700	
	Secentre Group Trust 1 / Secentre Group Trust 2	-	"	-	US\$ 698	N/A	US\$ 698	
	TTX Co	-	"	-	US\$ 698	N/A	US\$ 698	
	Vornado Realty LP	-	"	-	US\$ 697	N/A	US\$ 697	
	Three Georges Finance I Cayman Islands Ltd	-	"	-	US\$ 687	N/A	US\$ 687	
	Rochester Gas & Electric Corp	-	"	-	US\$ 681	N/A	US\$ 681	
	ING Bank NV	-	"	-	US\$ 675	N/A	US\$ 675	
	Ohio Power Co	-	"	-	US\$ 659	N/A	US\$ 659	
	Continental Airlines 2007-1 Class A Pass Through Trust	-	"	-	US\$ 658	N/A	US\$ 658	
	Entergy Gulf States Louisiana LLC	-	"	-	US\$ 649	N/A	US\$ 649	
	Georgia Power Co	-	"	-	US\$ 646	N/A	US\$ 646	
	Fortive Corp	-	"	-	US\$ 644	N/A	US\$ 644	
	RBC USA Holdco Corp	-	"	-	US\$ 642	N/A	US\$ 642	
	Alexandria Real Estate Equities Inc	-	"	-	US\$ 637	N/A	US\$ 637	
	Liberty Property LP	-	"	-	US\$ 631	N/A	US\$ 631	
	Grupo Bimbo SAB de CV	-	"	-	US\$ 631	N/A	US\$ 631	
	Potash Corp of Saskatchewan Inc	-	"	-	US\$ 628	N/A	US\$ 628	
	Daiwa Securities Group Inc	-	"	-	US\$ 613	N/A	US\$ 613	
	Dr Pepper Snapple Group Inc	-	"	-	US\$ 612	N/A	US\$ 612	
	BOC Aviation Ltd	-	"	-	US\$ 612	N/A	US\$ 612	
	Life Technologies Corp	-	"	-	US\$ 610	N/A	US\$ 610	
	Altria Group Inc	-	"	-	US\$ 604	N/A	US\$ 604	
	Kimberly-Clark Corp	-	"	-	US\$ 598	N/A	US\$ 598	
	American Express Co	-	"	-	US\$ 592	N/A	US\$ 592	
	ABC Inc	-	"	-	US\$ 591	N/A	US\$ 591	
	Host Hotels & Resorts LP	-	"	-	US\$ 588	N/A	US\$ 588	
	Mizuho Bank Ltd	-	"	-	US\$ 578	N/A	US\$ 578	
	AvalonBay Communities Inc	-	"	-	US\$ 576	N/A	US\$ 576	
	AXIS Specialty Finance PLC	-	"	-	US\$ 573	N/A	US\$ 573	
	Boston Properties LP	-	"	-	US\$ 550	N/A	US\$ 550	
	Caisse Centrale Desjardins	-	"	-	US\$ 550	N/A	US\$ 550	
	Exxon Mobil Corp	-	"	-	US\$ 548	N/A	US\$ 548	
	Bunge Ltd Finance Corp	-	"	-	US\$ 542	N/A	US\$ 542	

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Held Company Name	Marketable Securities Type and Name	Relationship with the Company	Financial Statement Account	December 31, 2017				Note
				Shares/Units (In Thousands)	Carrying Value (Foreign Currencies in Thousands)	Percentage of Ownership (%)	Fair Value (Foreign Currencies in Thousands)	
TSMC Global	Prudential Financial Inc	-	Available-for-sale financial assets	-	US\$ 536	N/A	US\$ 536	
	American Electric Power Co Inc	-	"	-	US\$ 522	N/A	US\$ 522	
	Southwestern Electric Power Co	-	"	-	US\$ 521	N/A	US\$ 521	
	Fulton Financial Corp	-	"	-	US\$ 517	N/A	US\$ 517	
	TD Ameritrade Holding Corp	-	"	-	US\$ 516	N/A	US\$ 516	
	Regency Centers Corp	-	"	-	US\$ 512	N/A	US\$ 512	
	Burlington Northern Santa Fe LLC	-	"	-	US\$ 504	N/A	US\$ 504	
	Walgreens Boots Alliance Inc	-	"	-	US\$ 503	N/A	US\$ 503	
	ORIX Corp	-	"	-	US\$ 501	N/A	US\$ 501	
	BNP Paribas / BNP Paribas US Medium-Term Note Program LLC	-	"	-	US\$ 501	N/A	US\$ 501	
	Swedbank AB	-	"	-	US\$ 501	N/A	US\$ 501	
	Halliburton Co	-	"	-	US\$ 500	N/A	US\$ 500	
	MassMutual Global Funding II	-	"	-	US\$ 486	N/A	US\$ 486	
	Comerica Inc	-	"	-	US\$ 473	N/A	US\$ 473	
	Eaton Corp	-	"	-	US\$ 470	N/A	US\$ 470	
	Narragansett Electric Co/The	-	"	-	US\$ 466	N/A	US\$ 466	
	CenterPoint Energy Inc	-	"	-	US\$ 463	N/A	US\$ 463	
	Spire Inc	-	"	-	US\$ 458	N/A	US\$ 458	
	Equifax Inc	-	"	-	US\$ 454	N/A	US\$ 454	
	Canadian Pacific Railway Co	-	"	-	US\$ 437	N/A	US\$ 437	
	Texas-New Mexico Power Co	-	"	-	US\$ 434	N/A	US\$ 434	
	Nationwide Building Society	-	"	-	US\$ 431	N/A	US\$ 431	
	Valero Energy Corp	-	"	-	US\$ 431	N/A	US\$ 431	
	Woodwards Group Ltd	-	"	-	US\$ 415	N/A	US\$ 415	
	TransCanada Pipelines Ltd	-	"	-	US\$ 415	N/A	US\$ 415	
	Volkswagen Group of America Finance LLC	-	"	-	US\$ 399	N/A	US\$ 399	
	Southern Power Co	-	"	-	US\$ 396	N/A	US\$ 396	
	IBM Credit LLC	-	"	-	US\$ 394	N/A	US\$ 394	
	StanCorp Financial Group Inc	-	"	-	US\$ 391	N/A	US\$ 391	
	Aon Corp	-	"	-	US\$ 390	N/A	US\$ 390	
	First Niagara Financial Group Inc	-	"	-	US\$ 382	N/A	US\$ 382	
	Nationwide Financial Services Inc	-	"	-	US\$ 377	N/A	US\$ 377	
	CenterPoint Energy Resources Corp	-	"	-	US\$ 364	N/A	US\$ 364	
	NetApp Inc	-	"	-	US\$ 362	N/A	US\$ 362	
	Deutsche Bank AG	-	"	-	US\$ 351	N/A	US\$ 351	
	Phillips 66	-	"	-	US\$ 325	N/A	US\$ 325	
	Cisco Systems Inc	-	"	-	US\$ 322	N/A	US\$ 322	
	PacificCorp	-	"	-	US\$ 314	N/A	US\$ 314	
	eBay Inc	-	"	-	US\$ 303	N/A	US\$ 303	
	Schlumberger Finance Canada Ltd	-	"	-	US\$ 298	N/A	US\$ 298	
	Eli Lilly & Co	-	"	-	US\$ 294	N/A	US\$ 294	
	BAE Systems Holdings Inc	-	"	-	US\$ 289	N/A	US\$ 289	
	Barclays Bank PLC	-	"	-	US\$ 288	N/A	US\$ 288	
	Amphenol Corp	-	"	-	US\$ 279	N/A	US\$ 279	
	EMD Finance LLC	-	"	-	US\$ 252	N/A	US\$ 252	
	Nonura Holdings Inc	-	"	-	US\$ 249	N/A	US\$ 249	
	NBCUniversal Enterprise Inc	-	"	-	US\$ 243	N/A	US\$ 243	
	CMS Energy Corp	-	"	-	US\$ 237	N/A	US\$ 237	
	Kansas City Power & Light Co	-	"	-	US\$ 237	N/A	US\$ 237	
	Hartford Financial Services Group Inc/The	-	"	-	US\$ 228	N/A	US\$ 228	
	Protective Life Corp	-	"	-	US\$ 227	N/A	US\$ 227	
	WestRock MWV LLC	-	"	-	US\$ 223	N/A	US\$ 223	
	Rolls-Royce PLC	-	"	-	US\$ 210	N/A	US\$ 210	
	Assurant Inc	-	"	-	US\$ 206	N/A	US\$ 206	
	Fidelity National Information Services Inc	-	"	-	US\$ 201	N/A	US\$ 201	
	Commonwealth Bank of Australia	-	"	-	US\$ 199	N/A	US\$ 199	
	Pinnacle West Capital Corp	-	"	-	US\$ 161	N/A	US\$ 161	
	Schneider Electric SE	-	"	-	US\$ 161	N/A	US\$ 161	

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Held Company Name	Marketable Securities Type and Name	Relationship with the Company	Financial Statement Account	December 31, 2017			Note
				Shares/Units (In Thousands)	Carrying Value (Foreign Currencies in Thousands)	Percentage of Ownership (%)	
TSMC Global	Packaging Corp of America	-	Available-for-sale financial assets	-	US\$ 160	N/A	US\$ 160
	Berkshire Hathaway Finance Corp	-	"	-	US\$ 135	N/A	US\$ 135
	Duke Energy Florida LLC	-	"	-	US\$ 120	N/A	US\$ 120
	Wells Fargo & Co	-	Held-to-maturity financial assets	-	US\$ 150,005	N/A	US\$ 152,279
	JPMorgan Chase & Co.	-	"	-	US\$ 142,042	N/A	US\$ 143,994
	Goldman Sachs Group, Inc.	-	"	-	US\$ 100,000	N/A	US\$ 100,943
	Westpac Banking Corp.	-	"	-	US\$ 100,000	N/A	US\$ 100,774
	Commonwealth Bank of Australia	-	"	-	US\$ 50,000	N/A	US\$ 50,363
	National Australia Bank	-	"	-	US\$ 50,000	N/A	US\$ 50,277
	Bank of Nova Scotia	-	"	-	US\$ 49,990	N/A	US\$ 50,236
	Industrial and Commercial Bank of China	-	"	-	US\$ 10,000	N/A	US\$ 10,005
	Government bond	-	Available-for-sale financial assets	-	US\$ 260,156	N/A	US\$ 260,156
	United States Treasury Note/Bond	-	"	-	US\$ 3,430	N/A	US\$ 3,430
	Abu Dhabi Government International Bond	-	"	-			
	Agency bonds/Agency mortgage-backed securities	-	Available-for-sale financial assets	-	US\$ 590,123	N/A	US\$ 590,123
	Fannie Mae	-	"	-	US\$ 233,117	N/A	US\$ 233,117
	Freddie Mac	-	"	-	US\$ 111,741	N/A	US\$ 111,741
	Government National Mortgage Association	-	"	-	US\$ 28,254	N/A	US\$ 28,254
	Ginnie Mae	-	"	-	US\$ 6,147	N/A	US\$ 6,147
	Federal Home Loan Banks	-	"	-	US\$ 3,865	N/A	US\$ 3,865
	Freddie Mac Multifamily Structured Pass Through Certificates	-	"	-	US\$ 3,004	N/A	US\$ 3,004
	Export-Import Bank of Korea	-	"	-	US\$ 2,990	N/A	US\$ 2,990
	Export Development Canada	-	"	-	US\$ 2,551	N/A	US\$ 2,551
	Province of Quebec Canada	-	"	-	US\$ 1,537	N/A	US\$ 1,537
	NCUA Guaranteed Notes Trust 2010-R2	-	"	-	US\$ 1,180	N/A	US\$ 1,180
	CPPIB Capital Inc	-	"	-	US\$ 894	N/A	US\$ 894
	Federal Farm Credit Banks	-	"	-	US\$ 313	N/A	US\$ 313
	FHLMC-GNMA	-	"	-			
	Asset-backed securities	-	Available-for-sale financial assets	-	US\$ 48,328	N/A	US\$ 48,328
	Citibank Credit Card Issuance Trust	-	"	-	US\$ 45,722	N/A	US\$ 45,722
	Discover Card Execution Note Trust	-	"	-	US\$ 39,211	N/A	US\$ 39,211
	Chase Issuance Trust	-	"	-	US\$ 31,060	N/A	US\$ 31,060
	American Express Credit Account Master Trust	-	"	-	US\$ 22,544	N/A	US\$ 22,544
	Capital One Multi-Asset Execution Trust	-	"	-	US\$ 20,808	N/A	US\$ 20,808
	Ford Credit Floorman Master Owner Trust A	-	"	-	US\$ 13,904	N/A	US\$ 13,904
	Ford Credit Auto Owner Trust/Ford Credit 2014-REV1	-	"	-	US\$ 12,792	N/A	US\$ 12,792
	UBS-Barclays Commercial Mortgage Trust 2012-C2	-	"	-	US\$ 12,234	N/A	US\$ 12,234
	COMM Mortgage Trust	-	"	-	US\$ 12,002	N/A	US\$ 12,002
	Morgan Stanley Bank of America Merrill Lynch Trust	-	"	-	US\$ 11,431	N/A	US\$ 11,431
	Toyota Auto Receivables 2014-C Owner Trust	-	"	-	US\$ 10,953	N/A	US\$ 10,953
	Chesapeake Funding II LLC	-	"	-	US\$ 10,821	N/A	US\$ 10,821
	BA Credit Card Trust	-	"	-	US\$ 10,359	N/A	US\$ 10,359
	GM Financial Automobile Leasing Trust 2015-3	-	"	-	US\$ 10,049	N/A	US\$ 10,049
	Mercedes-Benz Master Owner Trust	-	"	-	US\$ 9,335	N/A	US\$ 9,335
	JPMCC Commercial Mortgage Securities Trust 2017-JP7	-	"	-	US\$ 9,179	N/A	US\$ 9,179
	Hyundai Auto Lease Securitization Trust 2017-A	-	"	-	US\$ 8,787	N/A	US\$ 8,787
	Honda Auto Receivables 2017-2 Owner Trust	-	"	-	US\$ 8,047	N/A	US\$ 8,047
	BANK	-	"	-	US\$ 7,509	N/A	US\$ 7,509
	CGD BB Commercial Mortgage Trust 2017-BIOC	-	"	-	US\$ 7,114	N/A	US\$ 7,114
	Nissan Auto Lease Trust	-	"	-	US\$ 7,001	N/A	US\$ 7,001
	GS Mortgage Securities Trust	-	"	-	US\$ 6,859	N/A	US\$ 6,859
	Ford Credit Auto Owner Trust	-	"	-	US\$ 6,769	N/A	US\$ 6,769
	Citigroup Commercial Mortgage Trust 2013-GC11	-	"	-	US\$ 6,749	N/A	US\$ 6,749
	JPMBB Commercial Mortgage Securities Trust 2013-C12	-	"	-	US\$ 6,728	N/A	US\$ 6,728
	Hyundai Auto Receivables Trust	-	"	-	US\$ 6,511	N/A	US\$ 6,511
	Nissan Master Owner Trust Receivables	-	"	-	US\$ 5,961	N/A	US\$ 5,961
	BMW Vehicle Lease Trust	-	"	-			

(Continued)

Held Company Name	Marketable Securities Type and Name	Relationship with the Company	Financial Statement Account	December 31, 2017				Note
				Shares/Units (In Thousands)	Carrying Value (Foreign Currencies in Thousands)	Percentage of Ownership (%)	Fair Value (Foreign Currencies in Thousands)	
TSMC Global	Nissan Auto Receivables 2017-B Owner Trust	-	Available-for-sale financial assets	-	US\$ 4,863	N/A	US\$ 4,863	
	Ford Credit Auto Lease Trust	-	"	-	US\$ 4,528	N/A	US\$ 4,528	
	GM Financial Consumer Automobile 2017-1	-	"	-	US\$ 3,970	N/A	US\$ 3,970	
	Cold Storage Trust 2017-ICE3	-	"	-	US\$ 3,811	N/A	US\$ 3,811	
	Wheels SPV 2 LLC	-	"	-	US\$ 3,624	N/A	US\$ 3,624	
	Hertz Fleet Lease Funding LP	-	"	-	US\$ 3,486	N/A	US\$ 3,486	
	Wells Fargo Commercial Mortgage Trust 2015-LC20	-	"	-	US\$ 3,434	N/A	US\$ 3,434	
	Volvo Financial Equipment Master Owner Trust 2017-A	-	"	-	US\$ 3,009	N/A	US\$ 3,009	
	CSMC OA LLC	-	"	-	US\$ 2,877	N/A	US\$ 2,877	
	BMW Floorplan Master Owner Trust	-	"	-	US\$ 2,442	N/A	US\$ 2,442	
	JPMDB Commercial Mortgage Securities Trust 2017-C7	-	"	-	US\$ 2,006	N/A	US\$ 2,006	
	Mercedes-Benz Auto Lease Trust 2016-A	-	"	-	US\$ 1,820	N/A	US\$ 1,820	
	Morgan Stanley Capital I Trust	-	"	-	US\$ 1,513	N/A	US\$ 1,513	
	CFCRE Commercial Mortgage Trust 2011-C1	-	"	-	US\$ 998	N/A	US\$ 998	
Enterprise Fleet Financing LLC	-	"	-	US\$ 845	N/A	US\$ 845		
280 Park Avenue Mortgage Trust	-	"	-	US\$ 831	N/A	US\$ 831		
Mercedes-Benz Auto Receivables Trust 2015-1	-	"	-	US\$ 501	N/A	US\$ 501		
WFRBS Commercial Mortgage Trust 2013-C14	-	"	-	US\$ 485	N/A	US\$ 485		
Structure product								
Bank of Tokyo-Mitsubishi UFJ			Held-to-maturity financial assets	-	US\$ 50,000	N/A	US\$ 49,744	
Commercial paper								
Societe Generale Instl			Available-for-sale financial assets	-	US\$ 2,000	N/A	US\$ 2,000	
Norinchukin Bank			"	-	US\$ 2,000	N/A	US\$ 2,000	
Bank of Tokyo-Mitsubishi UFJ			"	-	US\$ 1,000	N/A	US\$ 1,000	
Fund								
Primavera Capital Fund II L.P.			Financial assets carried at cost	-	US\$ 65,635	4	US\$ 65,635	
Common stock								
LiquidLeds Lighting Corp.			Financial assets carried at cost	1,600	US\$ 800	11	US\$ 800	
Preferred stock								
Neocomix, Inc.			Financial assets carried at cost	4,147	US\$ 170	-	US\$ 170	
Common stock								
Aquantia			Available-for-sale financial assets	460	US\$ 5,209	1	US\$ 5,209	
Sentelic			Financial assets carried at cost	903	US\$ 2,607	4	US\$ 2,607	
5V Technologies, Inc.			"	963	US\$ 2,168	2	US\$ 2,168	
Aether Systems, Inc.			"	1,085	US\$ 339	20	US\$ 339	
Preferred stock								
Sonics, Inc.			Financial assets carried at cost	230	-	3	-	
Common stock								
Sonics, Inc.			Financial assets carried at cost	278	-	4	-	
Preferred stock								
Sonics, Inc.			Financial assets carried at cost	264	-	4	-	
Common stock								
Immovium, Inc.			Financial assets carried at cost	221	US\$ 370	-	US\$ 370	
Preferred stock								
Immovium, Inc.			Financial assets carried at cost	230	US\$ 384	-	US\$ 384	

(Concluded)

Taiwan Semiconductor Manufacturing Company Limited and Investees

MARKETABLE SECURITIES ACQUIRED AND DISPOSED OF AT COSTS OR PRICES OF AT LEAST NT\$300 MILLION OR 20% OF THE PAID-IN CAPITAL FOR THE YEAR ENDED DECEMBER 31, 2017

(Amounts in Thousands of New Taiwan Dollars, Unless Specified Otherwise)

Company Name	Marketable Securities Type and Name	Financial Statement Account	Counter-party	Nature of Relationship	Beginning Balance		Acquisition		Disposal		Ending Balance (Note 1)		
					Shares/Units (In Thousands)	Amount	Shares/Units (In Thousands)	Amount	Shares/Units (In Thousands)	Amount	Carrying Value	Gain/Loss on Disposal	Shares/Units (In Thousands)
TSMC	Corporate bond	Held-to-maturity financial assets	-	-	-	\$ 1,967,303	-	\$	\$ 1,960,000	-	-	\$	
	CPC Corporation, Taiwan	"	-	-	-	400,250	-	-	400,000	-	-	-	
	Hon Hai Precision Ind. Co., Ltd.	"	-	-	-	-	-	-	-	-	-	-	
	Commercial paper	Held-to-maturity financial assets	-	-	865	8,628,176	170	1,695,771	10,350,000	-	-	-	
	Taiwan Power Company	"	-	-	-	-	-	-	-	-	-	-	
	Stock	Investments accounted for using equity method	-	-	7	265,634,729	2	60,683,010	-	-	-	9	309,211,877
	TSMC Global	"	-	-	-	6,331,094	-	21,724,892	-	-	-	-	26,493,740
	TSMC Nanjing	"	-	-	-	-	-	-	-	-	-	-	-
	Stock	Investments accounted for using equity method	-	Note 2	9,299	US\$ 6,078	-	-	US\$ 15,552	-	-	9,299	US\$ 28
	TSMC Partners	"	-	-	-	-	-	-	-	-	-	-	-
TSMC Global	Corporate bond	Available-for-sale financial assets	-	-	-	US\$ 27,973	-	US\$ 30,914	US\$ 18,071	US\$ 18,205	US\$ (134)	-	US\$ 40,876
	Bank of America Corp	"	-	-	-	-	-	-	-	-	-	-	-
TSMC Global	Citigroup Inc	"	-	-	-	US\$ 16,819	-	US\$ 18,955	US\$ 5,816	US\$ 5,833	US\$ (17)	-	US\$ 29,911
	AT&T Inc	"	-	-	-	US\$ 13,332	-	US\$ 19,933	US\$ 6,425	US\$ 6,438	US\$ (13)	-	US\$ 26,867
	JPMorgan Chase & Co	"	-	-	-	US\$ 22,330	-	US\$ 16,030	US\$ 12,151	US\$ 12,258	US\$ (107)	-	US\$ 26,159
	Goldman Sachs Group Inc/The	"	-	-	-	US\$ 7,390	-	US\$ 17,211	US\$ 1,900	US\$ 1,976	US\$ (76)	-	US\$ 22,709
	Morgan Stanley	"	-	-	-	US\$ 11,237	-	US\$ 16,115	US\$ 9,018	US\$ 8,973	US\$ 45	-	US\$ 18,505
	Verizon Communications Inc	"	-	-	-	US\$ 17,059	-	US\$ 16,250	US\$ 15,042	US\$ 15,163	US\$ (121)	-	US\$ 18,298
	Ford Motor Credit Co LLC	"	-	-	-	US\$ 7,877	-	US\$ 11,849	US\$ 1,964	US\$ 2,016	US\$ (52)	-	US\$ 17,732
	BAT Capital Corp	"	-	-	-	-	-	US\$ 17,144	-	-	-	-	US\$ 17,024
	Apple Inc	"	-	-	-	US\$ 2,607	-	US\$ 14,737	US\$ 854	US\$ 862	US\$ (8)	-	US\$ 16,463
	Morgan Stanley	"	-	-	-	-	-	US\$ 12,683	-	-	-	-	US\$ 12,722
	Tyson Foods Inc	"	-	-	-	US\$ 1,704	-	US\$ 10,762	US\$ 201	US\$ 200	US\$ 1	-	US\$ 12,214
	JPMorgan Chase & Co	"	-	-	-	-	-	US\$ 11,600	-	-	-	-	US\$ 11,613
	Asian Development Bank	"	-	-	-	US\$ 1,994	-	US\$ 11,078	US\$ 1,997	US\$ 1,998	US\$ (1)	-	US\$ 11,073
	Microsoft Corp	"	-	-	-	US\$ 2,905	-	US\$ 11,279	US\$ 5,076	US\$ 4,992	US\$ 84	-	US\$ 9,301
	QUALCOMM Inc	"	-	-	-	US\$ 7,180	-	US\$ 10,425	US\$ 5,076	US\$ 4,992	US\$ 84	-	US\$ 9,301
	BMW US Capital LLC	"	-	-	-	US\$ 11,850	-	US\$ 5,995	US\$ 10,552	US\$ 10,495	US\$ 57	-	US\$ 6,866
	Gilead Sciences Inc	"	-	-	-	US\$ 11,618	-	-	US\$ 10,340	US\$ 10,606	US\$ (266)	-	US\$ 2,719
	Aetna Inc	"	-	-	-	-	-	-	US\$ 10,656	US\$ 10,570	US\$ 86	-	US\$ 1,608
	Government bond	Available-for-sale financial assets	-	-	-	US\$ 195,285	-	US\$ 396,552	US\$ 393,853	US\$ 394,514	US\$ (661)	-	US\$ 202,689
	United States Treasury Note/Bond	"	-	-	-	-	-	-	US\$ 163,600	US\$ 163,487	US\$ 113	-	US\$ 49,901
United States Treasury Floating Rate Note	"	-	-	-	US\$ 30,756	-	US\$ 182,629	US\$ 25,197	US\$ 25,187	US\$ 10	-	US\$ 2,997	
United States Treasury Bill	"	-	-	-	-	-	US\$ 97,678	US\$ 97,712	US\$ 97,678	US\$ 34	-	US\$ -	
United States Treasury Inflation Indexed Bonds	"	-	-	-	US\$ 19,349	-	US\$ 8,060	US\$ 27,343	US\$ 27,343	US\$ (172)	-	US\$ -	

(Continued)

Company Name	Marketable Securities Type and Name	Financial Statement Account	Counter-party	Nature of Relationship	Beginning Balance		Acquisition		Disposal		Ending Balance (Note 1)								
					Shares/Units (In Thousands)	Amount	Shares/Units (In Thousands)	Amount	Shares/Units (In Thousands)	Amount	Carrying Value	Gain/Loss on Disposal	Shares/Units (In Thousands)	Amount					
TSMC Global	Agency bonds/Agency mortgage-backed securities	Available-for-sale financial assets	-	-	-	-	-	-	-	-	-	-							
	FNMA POOL BM3196												US\$ 49,619	-	-	US\$ -	-	US\$ -	US\$ 49,526
	FNMA POOL BMI1948												US\$ 43,322	-	-	US\$ 1,609	US\$ 1,826	US\$ (217)	US\$ 41,275
	FNMA POOL BMI1886												US\$ 18,827	-	-	US\$ 495	US\$ 538	US\$ (43)	US\$ 18,109
	Government National Mortgage Association												US\$ 16,497	-	-	US\$ 81	US\$ 87	US\$ (6)	US\$ 16,739
	Fannie Mae												US\$ 15,777	-	-	US\$ 43	US\$ 114	US\$ (71)	US\$ 16,012
	FNMA TBA 30 Yr 4.5												US\$ 59,134	-	-	US\$ 43,295	US\$ 43,330	US\$ (35)	US\$ 15,758
	Fannie Mae												US\$ 14,877	-	-	US\$ 80	US\$ 123	US\$ (43)	US\$ 14,512
	Government National Mortgage Association												US\$ 14,352	-	-	-	US\$ 10	US\$ (10)	US\$ 14,415
	FNMA POOL AL9903												US\$ 12,520	-	-	US\$ 904	US\$ 1,010	US\$ (106)	US\$ 11,426
	FNMA TBA 30 Yr 3.5												US\$ 65,279	-	-	US\$ 62,406	US\$ 62,406	US\$ -	US\$ 2,866
	FNMA II TBA 30 Yr 4												US\$ 42,194	-	-	US\$ 39,813	US\$ 39,808	US\$ 5	US\$ 2,378
	FNMA TBA 15 Yr 3												US\$ 38,710	-	-	US\$ 36,709	US\$ 36,692	US\$ 17	US\$ 2,015
	FNMA II TBA 30 Yr 3.5												US\$ 27,241	-	-	US\$ 27,087	US\$ 27,096	US\$ (9)	US\$ 145
	FNMA TBA 30 Yr 3												US\$ 154,404	-	-	US\$ 154,494	US\$ 154,404	US\$ 90	-
	FNMA TBA 30 Yr 4												US\$ 21,721	-	-	US\$ 21,726	US\$ 21,721	US\$ 5	-
	FNMA TBA 30 Yr 5												US\$ 11,128	-	-	US\$ 11,134	US\$ 11,128	US\$ 6	-
	Federal Home Loan Bank Discount Notes												US\$ 152,578	-	-	US\$ 152,605	US\$ 152,578	US\$ 27	-
	FED HM LN PC Pool G07375												US\$ 10	-	-	US\$ 12,081	US\$ 12,121	US\$ (40)	-
	GNMA II TBA 30 Yr 3												US\$ 12,544	-	-	US\$ 12,541	US\$ 12,544	US\$ (3)	-
ISDF II	Asset-backed securities	Available-for-sale financial assets	-	-	-	-	-	-	-	-	-	-							
	Citibank Credit Card Issuance Trust												US\$ 22,585	-	-	US\$ 7,567	US\$ 7,766	US\$ (199)	US\$ 48,328
	Discover Card Execution Note Trust												US\$ 23,076	-	-	US\$ 13,991	US\$ 14,003	US\$ (12)	US\$ 45,722
	Chase Issuance Trust												US\$ 31,276	-	-	US\$ 12,607	US\$ 12,604	US\$ 3	US\$ 39,211
	Capital One Multi-Asset Execution Trust												US\$ 39,626	-	-	US\$ 18,303	US\$ 18,384	US\$ (81)	US\$ 22,544
	Ford Credit Floorplan Master Owner Trust A												US\$ 11,944	-	-	US\$ 5,927	US\$ 5,924	US\$ 3	US\$ 20,808
	BA Credit Card Trust												US\$ 17,465	-	-	US\$ 14,407	US\$ 14,416	US\$ (9)	US\$ 10,821
	Fund												-	-	-	-	-	-	-
	Primavera Capital Fund II L.P.												US\$ 23,784	-	-	US\$ 41,851	-	-	US\$ 65,635
	Stock												6,581	US\$ 6,387	-	-	US\$ 17,960	US\$ 3,207	US\$ 14,753
Alechip Technologies Limited	6,581	US\$ 6,387	-	-	6,581	US\$ 3,207	US\$ 14,753												

Note 1: The ending balance includes the amortization of premium/discount on bonds investments, share of profits/losses of investees and other related adjustment.

Note 2: The disposal is primarily consisted of capital return.

(Concluded)

TABLE 5

Taiwan Semiconductor Manufacturing Company Limited and Investees

ACQUISITION OF INDIVIDUAL REAL ESTATE PROPERTIES AT COSTS OF AT LEAST NT\$300 MILLION OR 20% OF THE PAID-IN CAPITAL FOR THE YEAR ENDED DECEMBER 31, 2017

(Amounts in Thousands of New Taiwan Dollars, Unless Specified Otherwise)

Company Name	Types of Property	Transaction Date	Transaction Amount (Foreign Currencies in Thousands)	Payment Term	Counter-party	Nature of Relationships	Prior Transaction of Related Counter-party			Price Reference	Purpose of Acquisition	Other Terms
							Owner	Relationships	Transfer Date			
TSMC	Fab	August 2, 2016 to December 5, 2017	\$ 642,837	Monthly settlement by the construction progress and acceptance	UNITED INTEGRATED SERVICES CO., LTD.	-	N/A	N/A	N/A	Bidding, price comparison and price negotiation	Manufacturing purpose	None
	Fab	August 10, 2016 to December 28, 2017	6,833,577	Monthly settlement by the construction progress and acceptance	Fu Tsa Construction Co., Ltd.	-	N/A	N/A	N/A	Bidding, price comparison and price negotiation	Manufacturing purpose	None
	Fab	September 22, 2016 to September 5, 2017	302,620	Monthly settlement by the construction progress and acceptance	Uangyih-Tech Industrial Co., Ltd.	-	N/A	N/A	N/A	Bidding, price comparison and price negotiation	Manufacturing purpose	None
	Fab	January 13, 2017 to December 14, 2017	307,199	Monthly settlement by the construction progress and acceptance	WHOLETECH SYSTEM HITECH LIMITED	-	N/A	N/A	N/A	Bidding, price comparison and price negotiation	Manufacturing purpose	None
	Fab	January 18, 2017	352,766	Monthly settlement by the construction progress and acceptance	TASA Construction Corporation	-	N/A	N/A	N/A	Bidding, price comparison and price negotiation	Manufacturing purpose	None
	Fab	March 15, 2017 to November 2, 2017	310,151	Monthly settlement by the construction progress and acceptance	MARKETECH INTERNATIONAL CORP.	-	N/A	N/A	N/A	Bidding, price comparison and price negotiation	Manufacturing purpose	None
	Fab	March 15, 2017 to December 15, 2017	317,397	Monthly settlement by the construction progress and acceptance	LI JIE INDUSTRIAL Co., Ltd	-	N/A	N/A	N/A	Bidding, price comparison and price negotiation	Manufacturing purpose	None
	Fab	March 17, 2017 to December 15, 2017	358,354	Monthly settlement by the construction progress and acceptance	TUN YI INDUSTRIAL Co., Ltd.	-	N/A	N/A	N/A	Bidding, price comparison and price negotiation	Manufacturing purpose	None
	Fab	March 21, 2017 to November 30, 2017	303,996	Monthly settlement by the construction progress and acceptance	Taiwan Puritic Corp.	-	N/A	N/A	N/A	Bidding, price comparison and price negotiation	Manufacturing purpose	None
	Fab	March 21, 2017 to December 25, 2017	300,748	Monthly settlement by the construction progress and acceptance	Gold Stone Development Co., Ltd.	-	N/A	N/A	N/A	Bidding, price comparison and price negotiation	Manufacturing purpose	None
	Fab	March 27, 2017 to December 27, 2017	758,991	Monthly settlement by the construction progress and acceptance	Cica-Huntek Chemical Technology Taiwan Co., Ltd	-	N/A	N/A	N/A	Bidding, price comparison and price negotiation	Manufacturing purpose	None
	Fab	April 14, 2017 to September 29, 2017	485,131	Monthly settlement by the construction progress and acceptance	KEDGE Construction Co., Ltd.	-	N/A	N/A	N/A	Bidding, price comparison and price negotiation	Manufacturing purpose	None
	Fab	April 18, 2017 to November 3, 2017	522,566	Monthly settlement by the construction progress and acceptance	Chen Yuan International Co., Ltd	-	N/A	N/A	N/A	Bidding, price comparison and price negotiation	Manufacturing purpose	None
	Fab	May 25, 2017 to December 29, 2017	6,898,386	Monthly settlement by the construction progress and acceptance	DA CIN Construction Co., Ltd.	-	N/A	N/A	N/A	Bidding, price comparison and price negotiation	Manufacturing purpose	None

(Continued)

Company Name	Types of Property	Transaction Date	Transaction Amount (Foreign Currencies in Thousands)	Payment Term	Counter-party	Nature of Relationships	Prior Transaction of Related Counter-party				Price Reference	Purpose of Acquisition	Other Terms
							Owner	Relationships	Transfer Date	Amount			
TSMC Nanjing Company Ltd.	Fab	March 21, 2017 to June 23, 2017	RMB 183,300	Monthly settlement by the construction progress and acceptance	China Construction First Division Group Construction & Development Co., Ltd.	-	N/A	N/A	N/A	Bidding, price comparison and price negotiation	Manufacturing purpose	None	
	Fab	May 25, 2017	RMB 119,027	Monthly settlement by the construction progress and acceptance	Renchong Interior Decoration(Shanghai) Co., Ltd.	-	N/A	N/A	N/A	Bidding, price comparison and price negotiation	Manufacturing purpose	None	
	Fab	June 22, 2017 to June 27, 2017	RMB 98,000	Monthly settlement by the construction progress and acceptance	Shanghai Baoye Group Co., Ltd.	-	N/A	N/A	N/A	Bidding, price comparison and price negotiation	Manufacturing purpose	None	
	Land use right	December 18, 2017	RMB 180,042	100% payment	Nanjing Municipal Bureau of Land and Resources	-	N/A	N/A	N/A	Bidding	Manufacturing purpose	None	

(Concluded)

Taiwan Semiconductor Manufacturing Company Limited and Investees

TOTAL PURCHASES FROM OR SALES TO RELATED PARTIES OF AT LEAST NT\$100 MILLION OR 20% OF THE PAID-IN CAPITAL FOR THE YEAR ENDED DECEMBER 31, 2017
(Amounts in Thousands of New Taiwan Dollars, Unless Specified Otherwise)

Company Name	Related Party	Nature of Relationships	Transaction Details				Abnormal Transaction		Notes/Accounts Payable or Receivable		Note
			Purchases/ Sales	Amount (Foreign Currencies in Thousands)	% to Total	Payment Terms	Unit Price	Payment Terms	Ending Balance (Foreign Currencies in Thousands)	% to Total	
TSMC	TSMC North America	Subsidiary	Sales	\$ 650,351,537	64	Net 30 days from invoice date (Note 1)	-	Note	\$ 91,329,510	77	
	GUC	Associate	Sales	6,864,165	1	Net 30 days from the end of the month of when invoice is issued	-	-	777,730	1	
	TSMC Nanjing	Subsidiary	Sales	416,672	-	Net 30 days from the end of the month of when invoice is issued	-	-	-	-	
	TSMC China	Subsidiary	Purchases	22,059,850	27	Net 30 days from the end of the month of when invoice is issued	-	-	(1,440,141)	5	
	WaferTech	Indirect subsidiary	Purchases	8,783,741	11	Net 30 days from the end of the month of when invoice is issued	-	-	(1,328,094)	4	
	VIS	Associate	Purchases	5,755,727	7	Net 30 days from the end of the month of when invoice is issued	-	-	(409,950)	1	
	SSMC	Associate	Purchases	4,148,190	5	Net 30 days from the end of the month of when invoice is issued	-	-	(406,959)	1	
	TSMC North America	GUC	Associate of TSMC	Sales	1,038,560 (US\$ 34,149)	-	Net 30 days from invoice date	-	-	245,162 (US\$ 8,266)	-
VisEra Tech	Xintec	Associate of TSMC	Sales	401,210	16	Net 30 days from the end of the month of when invoice is issued	-	-	161,232	-	
	SSMC	Associate of TSMC	Sales	115,075 (RMB 25,304)	1	Net 30 days from the end of the month of when invoice is issued	-	-	-	-	

Note: The tenor is 30 days from TSMC's invoice date or determined by the payment terms granted to its clients by TSMC North America.

Taiwan Semiconductor Manufacturing Company Limited and Investees

RECEIVABLES FROM RELATED PARTIES AMOUNTING TO AT LEAST NT\$100 MILLION OR 20% OF THE PAID-IN CAPITAL
DECEMBER 31, 2017

(Amounts in Thousands of New Taiwan Dollars, Unless Specified Otherwise)

Company Name	Related Party	Nature of Relationships	Ending Balance (Foreign Currencies in Thousands)	Turnover Days (Note 1)	Overdue		Amounts Received in Subsequent Period	Allowance for Bad Debts
					Amount	Action Taken		
TSMC	TSMC North America	Subsidiary	\$ 92,575,611	50	\$ 7,340,068	-	\$ 17,269,052	\$ -
	TSMC Nanjing	Subsidiary	1,754,484	Note 2	-	-	-	-
	GUC	Associate	777,730	45	521,739	-	571,010	-
TSMC China	TSMC	Parent company	1,440,141	26	671	-	671	-
	TSMC Nanjing	The same parent company	(RMB 316,238)	Note 2	(RMB 147)	-	(RMB 147)	-
TSMC Technology	TSMC	The ultimate parent of the Company	(RMB 4,427,934)	Note 2	-	-	-	-
WaferTech	TSMC	The ultimate parent of the Company	266,599	Note 2	-	-	-	-
VisEra Tech	TSMC	The ultimate parent of the Company	(US\$ 8,989)	54	1,554	-	1,554	-
	Xintec	Associate of TSMC	(US\$ 44,779)	43	(US\$ 52)	-	(US\$ 52)	-
TSMC North America	GUC	Associate of TSMC	161,232	50	-	-	-	-
			245,162		107,483	-	109,366	-
			(US\$ 8,266)		(US\$ 3,624)	-	(US\$ 3,687)	-

Note 1: The calculation of turnover days excludes other receivables from related parties.

Note 2: The ending balance is primarily consisted of other receivables, which is not applicable for the calculation of turnover days.

Taiwan Semiconductor Manufacturing Company Limited and Investees

NAMES, LOCATIONS, AND RELATED INFORMATION OF INVESTEEES OVER WHICH THE COMPANY EXERCISES SIGNIFICANT INFLUENCE (EXCLUDING INFORMATION ON INVESTMENT IN MAINLAND CHINA) FOR THE YEAR ENDED DECEMBER 31, 2017

(Amounts in Thousands of New Taiwan Dollars, Unless Specified Otherwise)

Investor Company	Investee Company	Location	Main Businesses and Products	Original Investment Amount		Balance as of December 31, 2017		Net Income (Losses) of the Investee (Foreign Currencies in Thousands)	Share of Profits/Losses of Investee (Note 1) (Foreign Currencies in Thousands)	Note
				December 31, 2017 (Foreign Currencies in Thousands)	December 31, 2016 (Foreign Currencies in Thousands)	Shares (In Thousands)	Carrying Value (Foreign Currencies in Thousands)			
TSMC	TSMC Global	Tortola, British Virgin Islands	Investment activities	\$ 292,890,229	\$ 232,207,219	9	\$ 309,211,877	\$ 5,026,024	5,026,024	Subsidiary
	TSMC Partners	Tortola, British Virgin Islands	Investing in companies involved in the design, manufacture, and other related business in the semiconductor industry and other investment activities	31,456,130	31,456,130	988,268	49,684,287	2,225,601	2,225,601	Subsidiary
	VIS	Hsin-Chu, Taiwan	Manufacturing, selling, packaging, testing and computer-aided design of integrated circuits and other semiconductor devices and the manufacturing and design service of masks	10,180,677	10,180,677	464,223	8,568,344	4,505,064	1,270,941	Associate
	SSMC	Singapore	Manufacturing and selling of integrated circuits and other semiconductor devices	5,120,028	5,120,028	314	5,677,640	4,444,634	1,724,073	Associate
	VisEra Tech	Hsin-Chu, Taiwan	Engaged in manufacturing electronic spare parts and in researching, developing, designing, manufacturing, selling, packaging and testing of color filter	5,005,171	5,005,171	253,120	4,667,162	207,557	180,424	Subsidiary
	TSMC North America	San Jose, California, U.S.A	Selling and marketing of integrated circuits and other semiconductor devices	333,718	333,718	11,000	4,001,003	5,859	5,859	Subsidiary
	Xintec	Taoyuan, Taiwan	Wafer level chip size packaging and wafer level post passivation interconnection service	1,988,317	1,988,317	111,282	2,292,100	(733,280)	(304,493)	Associate
	GUC	Hsin-Chu, Taiwan	Researching, developing, manufacturing, testing and marketing of integrated circuits	386,568	386,568	46,688	1,300,194	854,809	297,816	Associate
	TSMC Europe	Amsterdam, the Netherlands	Customer service and supporting activities	15,749	15,749	-	407,324	40,557	40,557	Subsidiary
	VTAF II	Cayman Islands	Investing in new start-up technology companies	412,831	608,562	-	320,533	133,597	130,925	Subsidiary
	VTAF III	Cayman Islands	Investing in new start-up technology companies	1,318,885	1,355,417	-	152,836	(25,234)	(24,729)	Subsidiary
	TSMC Japan	Yokohama, Japan	Customer service and supporting activities	83,760	83,760	6	129,446	3,600	3,600	Subsidiary
	TSMC Korea	Seoul, Korea	Customer service and supporting activities	13,656	13,656	80	39,210	1,970	1,970	Subsidiary
	TSMC Solar Europe GmbH	Hamburg, Germany	Selling of solar related products and providing customer service	25,266	25,266	1	(20,217)	(12,706)	(12,706)	Subsidiary
TSMC Partners	TSMC Development	Delaware, U.S.A	Investing in companies involved in the manufacturing related business in the semiconductor industry	17,408,018	17,408,018	-	26,379,465	1,448,900	Note 2	Subsidiary
	TSMC Technology	Delaware, U.S.A	Engineering support activities	(US\$ 586,939)	(US\$ 586,939)	-	(US\$ 889,425)	(US\$ 47,479)	Note 2	Subsidiary
	TSMC Canada	Ontario, Canada	Engineering support activities	423,590	423,590	2,500	(US\$ 518,616)	18,990	Note 2	Subsidiary
	ISDF II	Cayman Islands	Investing in new start-up technology companies	68,216	(US\$ 14,282)	9,299	(US\$ 182,321)	15,597	Note 2	Subsidiary
	ISDF	Cayman Islands	Investing in new start-up technology companies	(US\$ 2,300)	(US\$ 2,300)	583	(US\$ 6,147)	(US\$ 512)	Note 2	Subsidiary
	Growth Fund	Cayman Islands	Investing in new start-up technology companies	-	(US\$ 5,194)	-	(US\$ 28)	(US\$ 12,491)	Note 2	Subsidiary
	Mutual-Pak	New Taipei, Taiwan	Manufacturing of electronic parts, wholesaling and retailing of electronic materials, and researching, developing and testing of RFID	14,094	14,094	4,693	(US\$ 492)	44	Note 2	Subsidiary
				(US\$ 475)	(US\$ 475)	-	(US\$ 17)	(US\$ 1)	Note 2	Subsidiary
				63,879	43,355	-	46,334	(1,385)	Note 2	Subsidiary
				(US\$ 2,154)	(US\$ 1,462)	-	(US\$ 1,562)	(US\$ (46))	Note 2	Associate
				47,257	154,602	-	23,210	(18,028)	Note 2	Associate
				(US\$ 1,593)	(US\$ 5,213)	-	(US\$ 783)	(US\$ (589))	Note 2	Associate

(Continued)

Investor Company	Investee Company	Location	Main Businesses and Products	Original Investment Amount		Balance as of December 31, 2017			Net Income (Losses) of the Investee (Foreign Currencies in Thousands)	Share of Profits/Losses of Investee (Note 1) (Foreign Currencies in Thousands)	Note
				December 31, 2017 (Foreign Currencies in Thousands)	December 31, 2016 (Foreign Currencies in Thousands)	Shares (In Thousands)	Percentage of Ownership	Carrying Value (Foreign Currencies in Thousands)			
TSMC Development	WaferTech	Washington, U.S.A	Manufacturing, selling and testing of integrated circuits and other semiconductor devices	\$ -	\$ -	293,637	100	\$ 4,762,342 (US\$ 160,570)	\$ 1,248,658 (US\$ 40,896)	Note 2 Subsidiary	

Note 1: The share of profits/losses of investee includes the effect of unrealized gross profit on intercompany transactions.

Note 2: The share of profits/losses of the investee company is not reflected herein as such amount is already included in the share of profits/losses of the investor company.

(Concluded)

Taiwan Semiconductor Manufacturing Company Limited and Investees

INFORMATION ON INVESTMENT IN MAINLAND CHINA
FOR YEAR ENDED DECEMBER 31, 2017

(Amounts in Thousands of New Taiwan Dollars, Unless Specified Otherwise)

Investee Company	Main Businesses and Products	Total Amount of Paid-in Capital (RMB in Thousands)	Method of Investment	Accumulated Outflow of Investment from Taiwan as of January 1, 2017 (US\$ in Thousands)	Investment Flows		Accumulated Outflow of Investment from Taiwan as of December 31, 2017 (US\$ in Thousands)	Net Income (Losses) of the Investee Company	Percentage of Ownership	Share of Profits/Losses	Carrying Amount as of December 31, 2017	Accumulated Inward Remittance of Earnings as of December 31, 2017
					Outflow (US\$ in Thousands)	Inflow						
TSMC China	Manufacturing, selling, testing and computer-aided design of integrated circuits and other semiconductor devices	\$ 18,939,667 (RMB 4,502,080)	Note 1	\$ 18,939,667 (US\$ 596,000)	\$ -	\$ -	\$ 18,939,667 (US\$ 596,000)	\$ 8,938,933	100%	\$ 9,058,937 (Note 2)	\$ 51,060,885	\$ -
TSMC Nanjing	Manufacturing, selling, testing and computer-aided design of integrated circuits and other semiconductor devices	28,160,092 (RMB 6,133,276)	Note 1	6,435,200 (US\$ 200,000)	21,724,892 (US\$ 720,000)	-	28,160,092 (US\$ 920,000)	(867,563)	100%	(867,563) (Note 2)	26,493,740	-

Accumulated Investment in Mainland China as of December 31, 2017 (US\$ in Thousands)	Investment Amounts Authorized by Investment Commission, MOEA (US\$ in Thousands)	Upper Limit on Investment
\$ 47,099,759 (US\$ 1,516,000)	\$ 119,412,667 (US\$ 3,596,000)	Note 3

Note 1: TSMC directly invested US\$596,000 thousand in TSMC China and US\$920,000 thousands in TSMC Nanjing.

Note 2: Amount was recognized based on the audited financial statements.

Note 3: As the Company has obtained the certificate of being qualified for operating headquarters issued by Industrial Development Bureau, MOEA on August 2016, the upper limit on investment in mainland China pursuant to "Principle of investment or Technical Cooperation in Mainland China" is not applicable.

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Taiwan Semiconductor Manufacturing Company Limited**STATEMENT OF CASH AND CASH EQUIVALENTS****DECEMBER 31, 2017****(In Thousands of New Taiwan Dollars, Unless Specified Otherwise)**

Item	Description	Amount
Cash		
Petty cash		\$ 330
Cash in banks		
Checking accounts and demand deposits		25,958,240
Foreign currency deposits	Including US\$778,555 thousand @29.659, JPY33,992,762 thousand @0.2629 and EUR90,361 thousand @35.45	35,231,163
Time deposits	From 2017.05.31 to 2018.09.28, interest rates at 0.001%-2.16%, including NT\$155,849,074 thousand, US\$574,900 thousand @29.659 and EUR143,500 @35.45	<u>177,987,108</u>
Total		<u>\$ 239,176,841</u>

Taiwan Semiconductor Manufacturing Company Limited**STATEMENT OF NOTES AND ACCOUNTS RECEIVABLE, NET****DECEMBER 31, 2017****(In Thousands of New Taiwan Dollars)**

Client Name	Amount
Client A	\$ 4,331,550
Client B	4,182,954
Client C	2,348,708
Client D	2,006,820
Client E	1,390,409
Client F	1,357,239
Others (Note 1)	<u>11,506,872</u>
	27,124,552
Less: Allowance for doubtful accounts	<u>(469,125)</u>
Total	<u>\$ 26,655,427</u>

Note 1: The amount of individual client included in others does not exceed 5% of the account balance.

Note 2: The accounts receivable past due over one year amounted to NT\$5,902 thousand. The Company's subsidiary has obtained guarantee against these receivables, thus there was no impairment concern for the notes and accounts receivable.

Taiwan Semiconductor Manufacturing Company Limited

STATEMENT OF RECEIVABLES FROM RELATED PARTIES

DECEMBER 31, 2017

(In Thousands of New Taiwan Dollars)

Client Name	Amount
TSMC North America	\$ 91,329,510
Others (Note)	<u>812,327</u>
Total	<u>\$ 92,141,837</u>

Note: The amount of individual client included in others does not exceed 5% of the account balance.

Taiwan Semiconductor Manufacturing Company Limited**STATEMENT OF INVENTORIES
DECEMBER 31, 2017
(In Thousands of New Taiwan Dollars)**

Item	Amount	
	Cost	Net Realizable Value
Finished goods	\$ 9,596,837	\$ 26,645,348
Work in process	52,166,234	213,045,079
Raw materials	6,566,716	6,611,434
Supplies and spare parts	<u>1,967,658</u>	<u>1,999,552</u>
Total	<u>\$ 70,297,445</u>	<u>\$ 248,301,413</u>

Taiwan Semiconductor Manufacturing Company Limited

STATEMENT OF CHANGES IN INVESTMENTS ACCOUNTED FOR USING EQUITY METHOD
FOR THE YEAR ENDED DECEMBER 31, 2017
(In Thousands of New Taiwan Dollars, Unless Specified Otherwise)

Investees	Balance, January 1, 2017		Additions in Investment		Decrease in Investment		Increase (Decrease) in Using the Equity Method		Balance, December 31, 2017		Market Value or Net Assets Value		
	Shares (In Thousands)	Amount	Shares (In Thousands)	Amount	Shares (In Thousands)	Amount	Amount (Note 3)	Shares (In Thousands)	%	Amount	Unit Price (NT\$)	Total Amount	Collateral
Stocks													
TSMC Global	7	\$ 265,634,729	2	\$ 60,683,010	-	\$ -	\$ (17,105,862)	9	100	\$ 309,211,877		\$ 309,211,877	Nil
TSMC Partners	988,268	51,749,910	-	-	-	-	(2,065,623)	988,268	100	49,684,287		49,684,287	Nil
VIS	464,223	8,806,384	-	-	-	-	(238,040)	464,223	28	8,568,344	\$ 66 (Note 1)	30,638,751	Nil
SSMC	314	7,163,516	-	-	-	-	(1,485,876)	314	39	5,677,640		5,463,657	Nil
VisEra Tech	253,120	5,234,883	-	-	-	-	(567,721)	253,120	87	4,667,162		4,613,528	Nil
TSMC North America	11,000	4,340,303	-	-	-	-	(339,300)	11,000	100	4,001,003		4,001,003	Nil
Xintec	111,282	2,599,807	-	-	-	-	(307,707)	111,282	41	2,292,100		9,180,759	Nil
GUC	46,688	1,174,181	-	-	-	-	126,013	46,688	35	1,300,194	82.5 (Note 1)	11,905,404	Nil
TSMC Europe	-	353,695	-	-	-	-	53,629	-	100	407,324	255 (Note 2)	407,324	Nil
TSMC Japan	6	132,999	-	-	-	-	(3,553)	6	100	129,446		129,446	Nil
TSMC Korea	80	35,706	-	-	-	-	3,504	80	100	39,210		39,210	Nil
TSMC Solar Europe GmbH	1	(6,328)	-	-	-	-	(13,889)	1	100	(20,217)		(20,217)	Nil
Subtotal		347,219,785		60,683,010		-	(21,944,425)			385,958,370		425,384,695	
Capital													
TSMC China	-	42,618,308	-	-	-	-	8,442,577	-	100	51,060,885		51,161,815	Nil
TSMC Nanjing	-	6,331,094	-	21,724,892	-	-	(1,562,246)	-	100	26,493,740		27,068,373	Nil
VTAF II	-	467,171	-	-	-	(195,731)	49,093	-	98	320,533		314,287	Nil
VTAF III	-	219,350	-	25,385	-	(61,917)	(29,982)	-	98	152,836		129,667	Nil
Subtotal		49,635,923		21,750,277		(257,648)	6,899,442			78,027,994		78,674,142	
Total		\$ 396,855,708		\$ 82,433,287		\$ (257,648)	\$ (15,044,983)			\$ 463,986,364		\$ 504,058,837	

Note 1: The unit price is calculated by closing price of Gre Tai Securities Market as of December 29, 2017.

Note 2: The unit price is calculated by closing price of the Taiwan Stock Exchange as of December 29, 2017.

Note 3: Including share of profit or loss of subsidiaries and associates, share of other comprehensive income of subsidiaries and associates, cash dividends received from subsidiaries and associates, adjustments to share of changes in equity of subsidiaries and associates, adjustments arising from changes in percentage of ownership in subsidiaries and adjustments resulting from the transactions with subsidiaries and associates.

Taiwan Semiconductor Manufacturing Company Limited

STATEMENT OF SHORT-TERM LOANS
DECEMBER 31, 2017

(In Thousands of New Taiwan Dollars, Unless Specified Otherwise)

Type	Balance, End of Year	Contract Period	Range of Interest Rates (%)	Loan Commitments	Collateral	Remark
Unsecured loans						
Bank Of China	\$ 13,494,845	2017.11.13-2018.01.08	1.56	US\$ 500,000	Nil	-
The Bank Of Tokyo-Mitsubishi UFJ, Ltd.	8,304,520	2017.11.03-2018.01.03	1.555	US\$ 300,000	Nil	-
Bank Of America	8,007,930	2017.12.18-2018.01.08	1.75	US\$ 300,000	Nil	-
Crédit Agricole CIB	8,007,930	2017.12.20-2018.01.22	1.82	US\$ 300,000	Nil	-
Megabank	4,448,850	2017.11.02-2018.01.09	1.57	NT\$ 7,000,000	Nil	-
Citibank Taipei	4,003,965	2017.11.01-2018.01.16	1.56-1.60	US\$ 484,000	Nil	-
DBS	4,003,965	2017.11.17-2018.02.13	1.65	US\$ 250,000	Nil	-
JPMorgan Chase Bank N.A.	4,003,965	2017.11.06-2018.01.05	1.66	US\$ 200,000	Nil	-
Citibank Taiwan	2,965,900	2017.12.15-2018.01.11	1.76	US\$ 110,000	Nil	-
DB	2,669,310	2017.11.03-2018.01.05	1.62	US\$ 100,000	Nil	-
HSBC Taiwan	1,779,540	2017.11.17-2018.01.16	1.54	US\$ 70,000	Nil	-
HSBC	1,186,360	2017.11.17-2018.01.16	1.54	US\$ 55,000	Nil	-
Sumitomo Mitsui Banking Corporation	889,770	2017.12.19-2018.01.19	1.80	US\$ 300,000	Nil	-
	<u>\$ 63,766,850</u>					

Taiwan Semiconductor Manufacturing Company Limited

STATEMENT OF ACCOUNTS PAYABLES

DECEMBER 31, 2017

(In Thousands of New Taiwan Dollars)

Vendor Name	Amount
Vendor A	\$ 1,423,525
Others (Note)	<u>24,181,698</u>
Total	<u>\$ 25,605,223</u>

Note: The amount of individual vendor in others does not exceed 5% of the account balance.

Taiwan Semiconductor Manufacturing Company Limited**STATEMENT OF PAYABLES TO RELATED PARTIES****DECEMBER 31, 2017****(In Thousands of New Taiwan Dollars)**

Vendor Name	Amount
TSMC China	\$ 1,440,141
WaferTech	1,328,094
Xintec	817,876
VIS	409,950
SSMC	406,959
TSMC Technology	266,599
Others (Note)	<u>160,045</u>
Total	<u>\$ 4,829,664</u>

Note: The amount of individual vendor in others does not exceed 5% of the account balance.

Taiwan Semiconductor Manufacturing Company Limited

STATEMENT OF PAYABLES TO CONTRACTORS AND EQUIPMENT SUPPLIERS

DECEMBER 31, 2017

(In Thousands of New Taiwan Dollars)

Vendor Name	Amount
Vendor B	\$ 13,232,731
Vendor C	10,942,580
Vendor D	3,378,171
Vendor E	2,893,271
Others (Note)	<u>19,917,223</u>
Total	<u>\$ 50,363,976</u>

Note: The amount of individual vendor included in others does not exceed 5% of the account balance.

Taiwan Semiconductor Manufacturing Company Limited**STATEMENT OF ACCRUED EXPENSES AND OTHER CURRENT LIABILITIES****DECEMBER 31, 2017****(In Thousands of New Taiwan Dollars)**

Item	Amount
Receipts in advance	\$ 31,078,331
Guarantee deposit	6,046,643
Others (Note)	<u>20,561,412</u>
Total	<u>\$ 57,686,386</u>

Note: The amount of each item in others does not exceed 5% of the account balance.

Taiwan Semiconductor Manufacturing Company Limited

STATEMENT OF BONDS PAYABLE
 DECEMBER 31, 2017
 (In Thousands of New Taiwan Dollars)

Bonds Name	Trustee	Issuance Date	Interest Payment Date	Coupon Rate (%)	Total Amount	Repayment paid	Amount			Collateral	
							Balance, End of Year	Unamortized Premiums (Discounts)	Carrying Value		
Domestic unsecured bonds-100-1	Mega International Commercial Bank Co., Ltd.	2011.09.28	on 09.28 annually	1.63	\$ 7,500,000	\$ -	\$ 7,500,000	-	\$ 7,500,000	Bullet repayment	Nil
- B											
Domestic unsecured bonds-100-2	Mega International Commercial Bank Co., Ltd.	2012.01.11	on 01.11 annually	1.29	10,000,000	10,000,000	-	-	-	Bullet repayment	Nil
- A											
- B	Mega International Commercial Bank Co., Ltd.	2012.01.11	on 01.11 annually	1.46	7,000,000	-	7,000,000	-	7,000,000	Bullet repayment	Nil
Domestic unsecured bonds-101-1	Mega International Commercial Bank Co., Ltd.	2012.08.02	on 08.02 annually	1.28	9,900,000	9,900,000	-	-	-	Bullet repayment	Nil
- A											
- B	Mega International Commercial Bank Co., Ltd.	2012.08.02	on 08.02 annually	1.40	9,000,000	-	9,000,000	-	9,000,000	Bullet repayment	Nil
Domestic unsecured bonds-101-2	Taipei Fubon Commercial Bank Co., Ltd.	2012.09.26	on 09.26 annually	1.28	12,700,000	12,700,000	-	-	-	Bullet repayment	Nil
- A											
- B	Taipei Fubon Commercial Bank Co., Ltd.	2012.09.26	on 09.26 annually	1.39	9,000,000	-	9,000,000	-	9,000,000	Bullet repayment	Nil
Domestic unsecured bonds-101-3	Taipei Fubon Commercial Bank Co., Ltd.	2012.10.09	on 10.09 annually	1.53	4,400,000	-	4,400,000	-	4,400,000	Bullet repayment	Nil
- A											
- B	Taipei Fubon Commercial Bank Co., Ltd.	2013.01.04	on 01.04 annually	1.23	10,600,000	-	10,600,000	-	10,600,000	Bullet repayment	Nil
Domestic unsecured bonds-101-4	Taipei Fubon Commercial Bank Co., Ltd.	2013.01.04	on 01.04 annually	1.35	10,000,000	-	10,000,000	-	10,000,000	Bullet repayment	Nil
- A											
- B	Taipei Fubon Commercial Bank Co., Ltd.	2013.01.04	on 01.04 annually	1.49	3,000,000	-	3,000,000	-	3,000,000	Bullet repayment	Nil
Domestic unsecured bonds-102-1	Taipei Fubon Commercial Bank Co., Ltd.	2013.02.06	on 02.06 annually	1.23	6,200,000	-	6,200,000	-	6,200,000	Bullet repayment	Nil
- A											
- B	Taipei Fubon Commercial Bank Co., Ltd.	2013.02.06	on 02.06 annually	1.38	11,600,000	-	11,600,000	-	11,600,000	Bullet repayment	Nil
- C	Taipei Fubon Commercial Bank Co., Ltd.	2013.02.06	on 02.06 annually	1.50	3,600,000	-	3,600,000	-	3,600,000	Bullet repayment	Nil
Domestic unsecured bonds-102-2	Taipei Fubon Commercial Bank Co., Ltd.	2013.07.16	on 07.16 annually	1.50	10,200,000	-	10,200,000	-	10,200,000	Bullet repayment	Nil
- A											
- B	Taipei Fubon Commercial Bank Co., Ltd.	2013.07.16	on 07.16 annually	1.70	3,500,000	-	3,500,000	-	3,500,000	Bullet repayment	Nil
Domestic unsecured bonds-102-3	Taipei Fubon Commercial Bank Co., Ltd.	2013.08.09	on 08.09 annually	1.34	4,000,000	4,000,000	-	-	-	Bullet repayment	Nil
- A											
- B	Taipei Fubon Commercial Bank Co., Ltd.	2013.08.09	on 08.09 annually	1.52	8,500,000	-	8,500,000	-	8,500,000	Bullet repayment	Nil
Domestic unsecured bonds-102-4	Taipei Fubon Commercial Bank Co., Ltd.	2013.09.25	on 09.25 annually	1.45	1,500,000	1,500,000	-	-	-	Bullet repayment	Nil
- B											
- C	Taipei Fubon Commercial Bank Co., Ltd.	2013.09.25	on 09.25 annually	1.60	1,400,000	-	1,400,000	-	1,400,000	Bullet repayment	Nil
- D	Taipei Fubon Commercial Bank Co., Ltd.	2013.09.25	on 09.25 annually	1.85	2,600,000	-	2,600,000	-	2,600,000	Bullet repayment	Nil
- E	Taipei Fubon Commercial Bank Co., Ltd.	2013.09.25	on 09.25 annually	2.05	5,400,000	-	5,400,000	-	5,400,000	Bullet repayment	Nil
- F	Taipei Fubon Commercial Bank Co., Ltd.	2013.09.25	on 09.25 annually	2.10	2,600,000	-	2,600,000	-	2,600,000	Bullet repayment	Nil
TOTAL					\$ 154,200,000	\$ 38,100,000	\$ 116,100,000	\$ -	\$ 116,100,000		

Taiwan Semiconductor Manufacturing Company Limited**STATEMENT OF NET REVENUE****FOR THE YEAR ENDED DECEMBER 31, 2017****(In Thousands of New Taiwan Dollars, Unless Specified Otherwise)**

Item	Shipments (Piece) (Note)	Amount
Wafer	10,449,058	\$ 869,210,414
Other		<u>99,925,695</u>
Net revenue		<u>\$ 969,136,109</u>

Note: 12-inch equivalent wafers.

Taiwan Semiconductor Manufacturing Company Limited**STATEMENT OF COST OF REVENUE
FOR THE YEAR ENDED DECEMBER 31, 2017
(In Thousands of New Taiwan Dollars)**

Item	Amount
Raw materials used	
Balance, beginning of year	\$ 3,864,429
Raw material purchased	39,679,243
Raw materials, end of year	(6,566,716)
Transferred to manufacturing or operating expenses	(8,153,898)
Others	<u>(105,122)</u>
Subtotal	28,717,936
Direct labor	14,088,114
Manufacturing expenses	<u>439,610,993</u>
Manufacturing cost	482,417,043
Work in process, beginning of year	32,317,210
Work in process, end of year	(52,166,234)
Transferred to manufacturing or operating expenses	<u>(13,503,059)</u>
Cost of finished goods	449,064,960
Finished goods, beginning of year	8,324,267
Finished goods purchased	41,252,348
Finished goods, end of year	(9,596,837)
Transferred to manufacturing or operating expenses	(8,449,639)
Scrapped	<u>(294,486)</u>
Subtotal	480,300,613
Others	<u>9,896,243</u>
 Total	 <u>\$ 490,196,856</u>

Taiwan Semiconductor Manufacturing Company Limited**STATEMENT OF OPERATING EXPENSES
FOR THE YEAR ENDED DECEMBER 31, 2017
(In Thousands of New Taiwan Dollars)**

Item	Research and Development Expenses	General and Administrative Expenses	Selling Expenses
Payroll and related expense	\$ 27,419,259	\$ 7,125,078	\$ 2,028,116
Consumables	18,846,071	203,831	3,376
Depreciation expense	18,652,520	816,327	21,163
Repair and maintenance expense	3,426,711	1,679,314	2,940
Moving expense	503,573	1,824,079	524
Service fee	78,244	1,063,848	17,682
Patents	-	1,761,405	-
Management fees of the Science Park Administration	-	1,776,508	-
Commission	-	-	804,144
Others (Note)	<u>10,961,345</u>	<u>3,799,015</u>	<u>170,836</u>
Total	<u>\$ 79,887,723</u>	<u>\$ 20,049,405</u>	<u>\$ 3,048,781</u>

Note: The amount of each item in others does not exceed 5% of the account balance.

Taiwan Semiconductor Manufacturing Company Limited

STATEMENT OF LABOR, DEPRECIATION AND AMORTIZATION BY FUNCTION
FOR THE YEARS ENDED DECEMBER 31, 2017 AND 2016
(In Thousands of New Taiwan Dollars, Unless Specified Otherwise)

	Year Ended December 31, 2017			Year Ended December 31, 2016				
	Classified as Cost of Revenue	Classified as Operating Expenses	Classified as Other Operating Income and Expenses	Total	Classified as Cost of Revenue	Classified as Operating Expenses	Classified as Other Operating Income and Expenses	Total
Labor cost (Note)								
Salary and bonus	\$ 50,157,890	\$ 33,626,599	\$ -	\$ 83,784,489	\$ 47,718,885	\$ 32,054,821	\$ -	\$ 79,773,706
Labor and health insurance	2,628,261	1,589,597	-	4,217,858	2,393,838	1,425,653	-	3,819,491
Pension	1,405,941	771,054	-	2,176,995	1,305,083	702,550	-	2,007,633
Others	1,710,785	898,344	-	2,609,129	1,692,141	847,878	-	2,540,019
	<u>\$ 55,902,877</u>	<u>\$ 36,885,594</u>	<u>\$ -</u>	<u>\$ 92,788,471</u>	<u>\$ 53,109,947</u>	<u>\$ 35,030,902</u>	<u>\$ -</u>	<u>\$ 88,140,849</u>
Depreciation	\$ 231,042,615	\$ 19,490,010	\$ 64,510	\$ 250,597,135	\$ 197,595,313	\$ 16,357,124	\$ 24,887	\$ 213,977,324
Amortization	<u>\$ 2,119,899</u>	<u>\$ 2,205,129</u>	<u>\$ -</u>	<u>\$ 4,325,028</u>	<u>\$ 2,014,814</u>	<u>\$ 1,709,252</u>	<u>\$ -</u>	<u>\$ 3,724,066</u>

Note: As of December 31, 2017 and 2016, the Company had 43,139 and 41,850 employees, respectively.



Taiwan Semiconductor Manufacturing Company, Ltd.

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Taiwan Semiconductor Manufacturing Company, Ltd.



Morris Chang, Chairman