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Letter to Shareholders

Dear Shareholders,

2016 was a good year for TSMC as we delivered another year of record revenue and earnings. Our revenue grew double-digit outpacing a relatively flat global semiconductor industry. We also achieved our highest gross and operating margin in the last twenty years, which is a direct result of our ongoing and unrelenting company-wide focus on driving productivity improvement, higher operating efficiency, and across-the-board cost reduction efforts.

TSMC's growth is propelled by our ability to earn a premium to the overall semiconductor industry's growth by being a trusted provider of technology and capacity to the world logic IC industry. This position allowed us to participate actively in the growth of the faster-growing segments, such as the strong demand from 4G+ smartphones in the China market, the replacement and upgrade of Gaming, and the emergence of AI (Artificial Intelligence) in 2016. These applications require the use of technologies over a wide spectrum, and TSMC holds a leading position over this spectrum. Our strong position in technology leadership and our commitment to invest in both R&D and in Capex are what enabled us to continually gain foundry market segment share.

We made significant advances in leading-edge process technologies in 2016. Revenue from 16-nanometer grew more than five-fold in 2016 and reached above 20% of total wafer revenue. Our 10-nanometer successfully began volume production for customers' products in 2016, while 7-nanometer is on schedule to complete technology qualification in early 2017. Our 5-nanometer development is also well-underway and will see use of EUV (extreme ultraviolet) lithography. Our proprietary InFO (integrated fan-out) advanced packaging solution was adopted by a major customer for a significant mobile product in 2016 while we were working on the next generation of InFO solution for 2017 volume production.

Highlights of TSMC's accomplishments in 2016:

- Total wafer shipments increased 9.6 percent from 2015 to reach 9.6 million12-inch equivalent wafers.
- Advanced technologies (28-nanometer and beyond) accounted for 54 percent of total wafer revenue, up from 48 percent in 2015.
- We deployed 249 process technologies, and manufactured 9,275 products for 449 customers.
- TSMC's market share in the total semiconductor foundry segment rose successively during the last seven years and reached 56 percent in 2016.

2016 Financial Performance

Consolidated revenue totaled NT$947.94 billion, an increase of 12.4 percent over NT$843.50 billion in 2015. Net income was NT$334.25 billion and diluted earnings per share were NT$12.89. Both increased 9 percent from the 2015 level of NT$306.57 billion net income and NT$11.82 diluted EPS. Excluding major one-off items, namely share disposal gains and the closure of TSMC Solar operations in 2015 and the negative impact from the earthquake in 2016, our EPS would have grown 17.4 percent year-on-year in 2016.

In US dollars, TSMC generated net income of US$10.38 billion on consolidated revenue of US$29.43 billion, compared with net income of US$9.67 billion on consolidated revenue of US$26.61 billion in 2015.

Gross profit margin was 50.1 percent compared with 48.7 percent in 2015, and operating profit margin was 39.9 percent compared with 37.9 percent a year earlier. Net profit margin was 35.3 percent, a decrease of 1.0 percentage points from the prior year's 36.3 percent.

TSMC raised its cash dividend payment to NT$6.0 per share for 2015 earnings distribution from NT$4.5 a year ago to reflect continued rising free cash flow generation. We remain confident in our ability to maintain and steadily improve our free cash flow in the next few years, and will consider increasing the cash dividends when appropriate.

Technological Developments

Thanks to continuous innovation and improvement, TSMC's 28-nanometer technology remained robust with rising revenue in 2016, its sixth year of volume production. We will continue to roll out differentiated and cost-effective solutions and expect our strength in this significant node to persist for many more years.

We continued to reduce defect density and improve cycle time in our 16-nanometer FinFET technology. In addition to mobile processors, this node has gained strong acceptance for many other applications including cellular baseband, graphic processors for video games, augmented reality and virtual reality devices, and artificial intelligence systems. We further pushed the envelope of performance, die size and power consumption to roll out our 12-nanometer technology, which will enter volume production in the second half of 2017. Both 16-nanometer and 12-nanometer technologies can serve customers in mainstream and ultra-low power market segments, including low-to-mid-end mobile phones, consumer electronics, digital TV, automotive, and Internet of Things (IoT), as well as high-end applications, including high-end mobile and networking.

10-nanometer FinFET technology began production ramp in the fourth quarter of 2016 with shipments commencing in the first quarter of 2017. We expect a healthy ramp throughout 2017. With its aggressive geometric shrinkage, our 10-nanometer technology provides excellent density and is well positioned to serve the premium mobile market segment.

During the year, we collaborated with major customers and IP vendors to complete the IP design for our 7-nanometer technology and started silicon validation. We are on plan to start risk production in the spring of 2017. Meanwhile, development activities for our 5-nanometer node continued with risk production targeted for first half of 2019. We plan to use EUV lithography extensively at 5-nanometer to reduce process complexity. In addition, intensive early development efforts focusing on new transistors and technology definition were on-going for the technologies beyond 5-nanometer.

In the area of advanced packaging technologies, TSMC s proprietary InFO began volume production in 2016 while we also successfully qualified the next generation InFO solution with volume production expected in 2017. We extended our interposer CoWoS (chip-on-wafer-on substrate) technology to 16-nanometer and led the industry with volume production of super high-end accelerators that integrate multiple second generation high bandwidth memory chips (HBM2) and GPUs (Graphics Processing Unit) for the high performance computing market segment of artificial intelligence and deep learning.

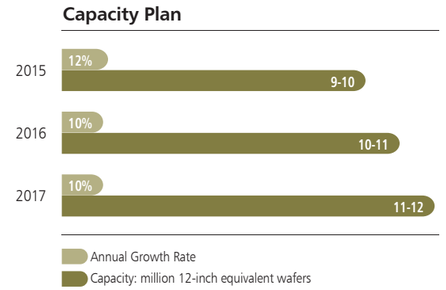
TSMC s ecosystem, the Open Innovation Platform (OIP), continued to expand in 2016 with more than 12,000 items contained in our libraries and silicon IP portfolio. More than 8,200 technology files and over 270 process design kits were available to customers via TSMC-Online which saw more than 100,000 customer downloads in 2016.

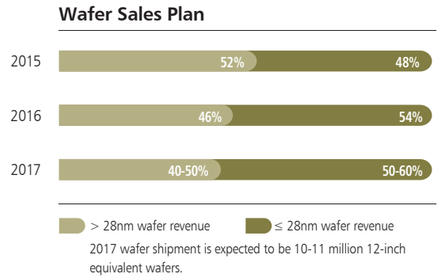
Corporate Developments

In March 2016, TSMC and the municipal government of Nanjing, China signed an agreement affirming that TSMC will make an investment to establish TSMC Nanjing Co. Ltd., a wholly-owned subsidiary of TSMC that will own and operate a 12-inch wafer fab and a design service center. The purpose is to provide closer support to customers as we expand our business opportunities in China. The facility is scheduled to commence production of 16-nanometer process technology in the second half of 2018.

Honors and Awards

TSMC received recognitions for achievements in innovation, business information disclosure, corporate governance, sustainability, investor relations and overall excellence in management from organizations including *Newsweek*, *CommonWealth Magazine*, PricewaterhouseCoopers, *GlobalViews Magazine*, *Channel NewsAsia*, RobecoSAM and the Taiwan Stock Exchange. TSMC received multiple awards from *Institutional Investor Magazine* and was ranked number one in *IR Magazine* s Global Top Fifty Awards. TSMC was also selected as a component of the Dow Jones Sustainability Indices for a 16th consecutive year, reflecting our ongoing commitment to sustainability and corporate social responsibility. In 2016, TSMC was included as the largest component in the newly-launched FTSE4Good Emerging Index by the London Stock Exchange, and we remained a major component in MSCI Global Sustainability Indexes, an important global benchmark for CSR.





Outlook

Entering our fourth decade, TSMC has advanced into the forefront of semiconductor technology and has grown to become the world s largest wafer capacity provider for logic ICs. TSMC s innovative foundry business model has flourished and placed us at the center of a comprehensive ecosystem of IC designers, IP providers, and equipment suppliers with unmatched ability to unleash innovation. ICs manufactured by TSMC formed the backbone of information technology today.

As silicon becomes pervasive and computing is ubiquitous, the intelligent future requires continued advancement and innovation in semiconductor process technologies. As our technology development collecting pace, we now can provide our customers the most competitive leading-edge technology to develop their product. Combined with their innovative algorithm, customized architecture and strength in designs, our customers are able to provide the most competitive products in the applications where they were not used to compete before. Through our customers, we are expanding our footprint into the global high performance computing market as well.

TSMC has evolved over the last three decades, but our core values of integrity, commitment, innovation, and customer trust remain unchanged. We remain committed to creating value and generating strong returns to shareholders who have placed their trust with us. As we carry our heritage of excellence forward into an exciting future, we look forward to prospering together with our shareholders.

Morris Chang
Chairman