

# 1. Letter to Shareholders



A diamond requires meticulous cutting and polishing before it can dazzle radiantly in the light. Though competition grows more intense, TSMC works unceasingly to deliver brilliant results.

## Dear Shareholders,

In 2014, we continued to reap the benefits of correct strategic choices made over the last several years. Our record high revenue and profitability led to significant growth in both net income and earnings per share. Our revenue growth was propelled largely by strong demand for our industry-leading 28-nanometer technologies and the rapid customer acceptance and ramp-up of our first-in-foundry-industry 20-nanometer System-on-Chip (SoC) production, which was the application processor of the world's best-selling smartphone models in 2014. We anticipate continued growth in 2015 and beyond as strong demand for leading-edge technologies continues with better performance, more efficient power consumption, and smaller device form factors.

We envision the race ahead as a relay in which our new technology development programs hand off the benefit of each node to the next, leveraging our knowledge and capacity to deliver optimal performance for our customers and the best returns to our shareholders. Our success in 20-nanometer has also laid the groundwork for our industry-leading FinFET solution at the 16-nanometer node. Our 16 FinFET Plus has completed technology qualification on schedule in December 2014 and begun risk production for customers. Our 10-nanometer technology development is progressing, and we remain on track to begin customer product tape-outs by the end of 2015.

We continue to increase our investments in R&D and capacity, as we firmly believe these will sow the seeds for further harvests to come. Our other achievements in 2014 include:

- Total wafer shipments grew 19 percent from 2013 to reach 8.26 million 12-inch equivalent wafers.
- Advanced technologies (28-nanometer and beyond) accounted for 42 percent of total wafer revenue.
- We deployed 210 process technologies, and manufactured 8,876 products for 453 customers.
- TSMC's market share in the total semiconductor foundry segment rose successively during the last five years and reached 54 percent in 2014.

### 2014 Financial Performance

Consolidated revenue totaled NT\$762.81 billion, an increase of 27.8 percent over NT\$597.02 billion in 2013. Net income was NT\$263.90 billion and diluted earnings per share were NT\$10.18. Both increased 40.3 percent from the 2013 level of NT\$188.15 billion net income and NT\$7.26 diluted EPS.

In US dollars, TSMC generated net income of US\$8.71 billion on consolidated revenue of US\$25.17 billion, compared with net income of US\$6.34 billion on consolidated revenue of US\$20.11 billion for 2013.

Gross profit margin was 49.5 percent compared with 47.1 percent in 2013, and operating profit margin was 38.8 percent compared with 35.1 percent a year earlier. Net profit margin was 34.6 percent, an increase of 3.1 percentage points from the previous year's 31.5 percent.

### Technological Developments

TSMC's industry-leading 28-nanometer saw several significant process improvements in 2014. Enhancements and extensions of the 28-nanometer node help ensure continued strong market share, and the Company is building additional capacity to accommodate and support customers' increasing demand. A new offering, 28ULP for ultra-low power applications helps customers to expand into the Internet of Things (IoT) and wearable device area. Combined with the Company's 55- and 40-nanometer ULP, TSMC builds the foundry industry's most comprehensive ultra-low power platform that can serve a wide range of speed-power combinations.



In 20-nanometer, high volume production started in the middle of 2014 and quickly ramped up to account for 21 percent of fourth quarter revenue, registering a record as the fastest production ramp of any node in Company history. By introducing the double patterning technique, 20SoC provides better density and power value for both performance-driven products and mobile computing applications migration. In addition, 16-nanometer FinFET Plus (16FF+) has a comprehensive design ecosystem that supports a wide variety of design tools and more than 100 silicon-validated IPs. Nearly 60 customer designs are currently scheduled for tape out by the end of 2015. Volume ramp is expected to begin in the middle of 2015.

Meanwhile, we are at work providing the design ecosystem for our 10-nanometer technology. Not only have we started the IP validation process early, we have also completed certification of over 35 design tools.

In 2014, 7-nanometer technology entered advanced development stage. Development activities in 2015 will focus on selection of transistor architecture, baseline manufacturing process setup for both transistors and interconnects, and initial reliability evaluations.

In addition to silicon device scaling, we are working on system scaling through advanced packaging to increase system bandwidth and to decrease power consumption and device form factors. TSMC's Chip-on-Wafer-on-Substrate (CoWoS®) technology continues to expand its applications from FPGA to network and to high performance computing using 20SoC or 16FF+ for the top dies. In parallel, TSMC's Integrated Fan-Out (InFO) technology has been developed for such applications as mobile and consumer products. We are qualifying InFO 16-nanometer products for volume ramp-up in 2016. Meanwhile we are working on our second generation InFO to supplement the silicon scaling of the 10-nanometer generation.

#### Corporate Developments

In January 2015, TSMC's board of directors approved the sale of TSMC Solid State Lighting (TSMC SSL) to Epistar, which is the world's largest manufacturer of LED epitaxial wafers and dies, through an equity ownership transfer. The share transfer is valued at NT\$1.46 per share with a total of NT\$825 million proceeds to TSMC. An important part of the ownership change is that no employee of TSMC SSL will lose employment. After the transfer, TSMC will exit the LED industry.

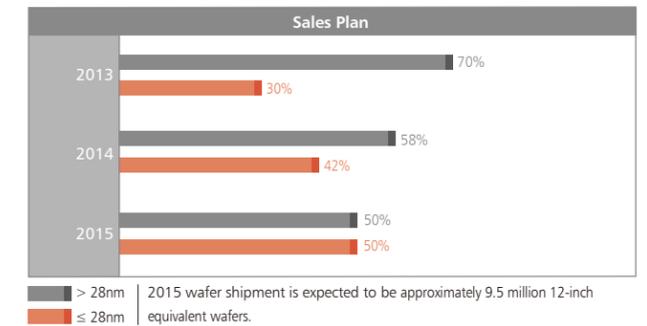
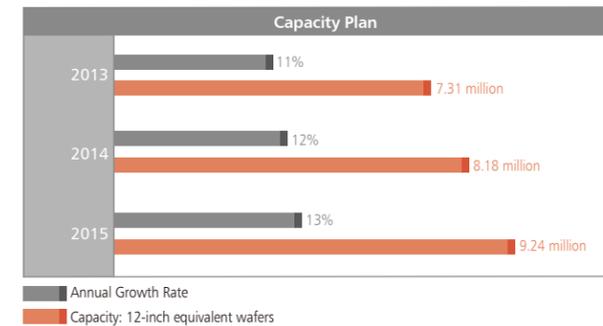
#### Honors and Awards

TSMC received recognitions for achievements in corporate governance and citizenship, economic contribution, financial reporting, innovation, investor relations, management, and sustainability in 2014 from organizations including *FinanceAsia*, *Fortune Magazine*, *Institutional Investor*, *IR Magazine*, *GlobalViews Magazine*, *CommonWealth Magazine*, *RobecoSAM*, and the *Financial Times* and Standard Chartered Bank.

In particular, TSMC was named the Leader of the Dow Jones Sustainability Index for the Semiconductors and Semiconductor Equipment Industry Group for the second year in a row. The honor affirms the Company's commitment to sustainability and corporate social responsibility.

#### Outlook

TSMC positioned itself with the right technology to capture maximum benefit from the growth in demand for mobile devices in the past five years. We continue to believe that these products will propel our growth for the next few years as consumers in emerging economies demand smartphones and tablets with both powerful functionality and accessible prices.



We are now utilizing the same strategy to ride the next wave of new evolutionary mobile devices—the Internet of Things. The Internet of Things not only drive a multitude of consumer devices connected to the network, it will also drive continuously increasing data processing power on various processors, in data centers, and in many mobile devices. For example, exciting applications such as wearables, smart cars, smart homes, and smart cities are the major IoT applications which promise to make semiconductors ubiquitous in our lives.

Innovators are already hard at work designing a myriad of ways to create a better life by linking objects all around us into an intelligent network. To turn their visions into reality, they need semiconductors with processing power, connectivity, ultra-low power, various types of sensors, and system-level integration, including advanced packaging. We have made much progress in developing all of those necessary technologies to make TSMC a critical part of the IoT ecosystem. At the same time, we are also investing in the capacity in both advanced and specialty technologies to supply the demand from this highly promising and still evolving market.

With our unwavering dedication to technology leadership, manufacturing excellence, and customer trust, we believe we can serve as a vital supplier of the fundamental building blocks of the semiconductor industry's "next big things". More importantly, we are preparing for many more years of profitable growth and good shareholder returns.



*Morris Chang*  
Morris Chang  
Chairman