

TSMC provides customer service through its account management and engineering services offices in North America, Europe, Japan, China, South Korea, and India. The Company employed more than 22,000 people worldwide as of the end of 2008.

TSMC continues to lead the foundry segment of the semiconductor industry in advanced process technologies. Already the first foundry to provide 65nm production capacity, again, in 2008, TSMC was the first foundry to provide 40nm production. In addition to general-purpose logic process technology, TSMC supports the wide-ranging needs of its customers with embedded non-volatile memory, embedded DRAM, mixed signal/RF, high voltage, CMOS image sensor, color filter, MEMS, and silicon germanium technologies. In September 2008, TSMC announced future plans to deliver its 28nm process as a full node technology in 2010, offering the option of both high-k metal gate (HKMG) and silicon oxynitride (SiON) material to support a variety of customer applications.

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

2.2 Market/Business Summary

2.2.1 TSMC Achievements

In 2008, TSMC maintained its leading position in the pure-play foundry segment of the global semiconductor industry, with an estimated market segment share of 51%. TSMC achieved this result amid fierce competition from both established players and relatively new entrants to the business.

Leadership in advanced process technologies is a key factor in TSMC's business success. In 2008, 64% of TSMC's wafer revenue came from manufacturing processes with geometries of 0.13 μ m and below. A critical milestone was reached in September 2008, when TSMC shipped its five hundred thousandth 65nm 12-inch wafer. Moreover, TSMC also achieved volume production of the 45/40nm process as well as development of the leading-edge 32/28nm process, both foundry firsts. As of the fourth quarter of 2008, 27% of TSMC's wafer revenue came from 65nm processes and below.

In addition to advanced technologies, TSMC also offers innovative services in line with its unwavering focus on customer partnership. Among the many innovative services unveiled in 2008 was wafer level chip scale package (WLCSP) which offers smaller form factor, addressing the trend of mobile devices becoming smaller and thinner while providing richer features. TSMC also rolled out its Open Innovation Platform™ initiative in 2008 to promote and facilitate timely innovation among the semiconductor design community, its ecosystem partners and TSMC's IP, design methodology, design implementation, DFM capabilities, process technology and backend services.

TSMC continued to advance the semiconductor roadmap in 2008. Examples of technologies the Company developed or rolled out include:

- 32/28nm technology with functional static random access memory (SRAM)
- 45/40nm technology
- 55nm general performance technology, a 90% linear shrink from 65nm
- 85nm general performance technology
- 85nm low power technology
- 0.12 μ m general performance technology
- 0.13 μ m high voltage process for small panel single chip drivers
- 0.152 μ m logic process for low power and radio frequency (RF) applications
- 0.18 μ m low power embedded flash memory
- 0.18 μ m bipolar complementary device (BCD)

At the same time, the following technology is also in our development roadmap:

- 55nm low power technology

In addition, one major focus of TSMC's technology development in 2008 was its specialty technology strategy, including 65/90nm embedded flash, 65/90nm CMOS image sensor and 0.13 μ m analog technologies. In 2008, TSMC offered the foundry segment's first CMOS image sensor with innovative back side illumination technology, known as 0.11 μ m BSI. These specialty technologies are key differentiators from competitors and provide customer with greater value.

2.2.2 Market Overview

It is estimated that the semiconductor market in 2008 reached US\$249 billion in revenue, a slight decrease of 3% compared to 2007. According to IC Insights, total foundry, a manufacturing sub-segment of the semiconductor industry, generated total revenues of US\$25 billion in 2008, up 2.9% year on year, while revenues from pure-play foundries such as TSMC reached US\$21 billion. In 2008, the largest geographic market for pure-play foundry services was North America, which accounted for 62% of overall pure-play foundry revenue. The second largest geographic market was Asia Pacific (excluding Japan), which accounted for 24% of total pure-play foundry revenue in 2008. European-based customers accounted for 9%, and orders from companies based in Japan contributed 5%. The TSMC figures are based on the customer's headquarters location and not actual end-product destination or use.

2.2.3 Industry Outlook, Opportunities and Threats

Industry Demand and Supply Outlook

The semiconductor market in 2008 experienced a slight decline of 3%. For 2009, based on the deteriorating global macro economic conditions of first quarter, the semiconductor market could decline in percentage terms by around 20%, depending on the severity of the recession. As the inventory level in the supply chain generally appeared to be higher than average at the end of 2008, the decline of the foundry segment could be deeper than the semiconductor industry by another mid-to-high single digit percent in 2009. Pure-play foundry capacity is estimated to increase by around 5% in 2009, compared with the 12% compound annual growth rate from 2006 to 2008. This indicates that

foundry players may only invest very limited capacity in response to the recession in 2009.

Opportunities and Threats in the Foundry Segment of the Semiconductor Marketplace

Despite the fact that the semiconductor market as a whole is maturing, and considering the global challenges of 2009, TSMC believes that foundry services, the segment in which TSMC principally competes, will play an increasingly important role as the semiconductor industry becomes more reliant on outsourced manufacturing in the long run. With the assumption of production value being 2.2 times pure-play foundry revenue, it's forecasted that by 2013, 21% of global semiconductor revenue could come from pure-play foundries, compared with 17% in 2008, according to IC Insights. As the leader in pure-play foundry services, TSMC is well positioned to capture the growth opportunities of this segment. On the other hand, threats facing the foundry segment include a continuing decline in wafer prices, due to the fact that the IC industry is prone to fast-declining end application prices, as well as potential industry overcapacity when the global economic climate experiences a downturn.

2.2.4 TSMC Position, Differentiation and Strategy

Position

As the leader in the pure-play foundry segment of the semiconductor industry, TSMC commanded a 51% share of this segment in 2008, with total consolidated revenue of US\$10.6 billion. In terms of geographic distribution of wafer revenue, 74% came from North America, 13% from the Asia Pacific region excluding Japan, 10% from Europe, and 3% from Japan. In terms of end-product application, 33% of total wafer revenue came from the computing sector,

42% from communications, 19% from consumer products, and 6% from other categories, such as industrial products. The TSMC figures are based on the customer's headquarters location and not actual end-product destination or use.

Differentiation

TSMC's leading industry position is based on a trinity of key differentiating strengths: technology leadership, manufacturing excellence, and customer partnership. As a technology leader, TSMC has consistently been the first pure-play foundry to develop the next generation of leading-edge technologies. As a manufacturing leader, TSMC is renowned for its yield management, and offers best-in-class support services to expedite time-to-market and time-to-volume. And, in customer partnership, TSMC works closely with its customers on end-to-end collaboration to optimize design and manufacturing efficiencies. Going forward, TSMC will continue building on this trinity of strengths to provide the best overall value to its customers.

Strategy

TSMC is confident its differentiating strengths will enable it to leverage the attractive growth opportunities in the foundry segment going forward. TSMC works constantly to ensure that these strengths are maintained and improved. For example, TSMC is intensively working on the leading-edge 28nm and 22nm processes to maintain its technology leadership position, and is poised to be the first pure-play foundry player to roll out production in these technologies. Numerous efforts are also underway to ensure manufacturing excellence, such as continuing enhancement of Design-For-Manufacturing (DFM) support services to increase yield and efficiency. TSMC also introduced its Open

Innovation Platform™ initiative, a set of ecosystem interfaces and collaborative components initiated and supported by TSMC that efficiently empowers innovation throughout the supply chain to enhance timely innovation. Finally, TSMC conducts throughout the year customer reviews and surveys to better understand customer needs and wants, and accordingly may adjust its offerings in response, thereby strengthening its partnership with customers.

TSMC's plans to continue strengthening its core capabilities and value propositions, including its ability to deliver customer product to market earlier and with better functionality; to develop advanced and mainstream technologies with sufficient capacity support and flexible manufacturing; to continue to focus on customer service; and to continue optimizing its service portfolio in order to balance profitability and growth.

2.3 Business Activities

2.3.1 Business Scope

TSMC's business scope is semiconductor foundry and associated services. The Company excels in all aspects of its business, including semiconductor process technology research and development, wafer manufacturing, logistics management, capacity utilization, customer service, and associated services such as design services, mask manufacturing, wafer probing, and in-house bumping and testing. TSMC strives to provide the best overall value to customers; the success of TSMC's business is manifested in the success of its customers.

2.3.2 Customer Applications

Over the past 21 years, more than 500 customers worldwide have relied on TSMC to manufacture chips that are used across the entire spectrum of electronic applications, including computers and peripherals, information appliances, wired and wireless communications systems, automotive and industrial equipment, consumer electronics such as DVDs, digital TVs, game consoles, digital still cameras (DSCs), and many other applications.

The rapid evolution of end products drives our customers to utilize TSMC's innovative technologies and services, while at the same time spurring TSMC's own development of technology. As always, success depends on leading rather than following industry trends.

2.4 Financial Highlights

2008 was a year of rapid change. TSMC's business remained vibrant in the first three quarters of the year, but saw demand slowing by the middle of the third quarter. Fourth quarter revenue substantially declined and showed no sign of recovery by the year-end.

With the sharp decline in the demand for semiconductors in the last quarter of 2008, revenue of the worldwide semiconductor market for the full year is estimated to have declined by about 3 percent from its 2007 level. Pure-play foundry segment is estimated to have outperformed the semiconductor industry and registered an annual growth rate of approximately 2 percent. TSMC outperformed its peers, delivered 7.9 percent revenue growth in

US dollars, and gained market share to reach 51 percent among pure-play foundries during 2008. The outperformance is particularly pronounced in the advanced process technologies where TSMC successfully ramped its 65-nanometer process technology from 10 percent of wafer revenue at the beginning of the year to 27 percent by year-end.

Total TSMC consolidated revenue for 2008 was NT\$333.16 billion, a 3.3 percent increase compared with NT\$322.63 billion in 2007. Mainly due to the implementation of a new accounting rule that requires expensing of employee profit sharing in the Company's financial statements starting in 2008, net income decreased 8.5 percent to NT\$99.93 billion, compared with 2007 net income of NT\$109.18 billion. Similarly, diluted earnings per share decreased 5.7 percent to NT\$3.83, compared with NT\$4.06 a year earlier. Had the accounting rules remained the same and employee profit sharing had not been expensed, net income in 2008 would have been NT\$112.42 billion and EPS NT\$4.31. In US dollars, TSMC's 2008 revenue was US\$10.61 billion and net income was US\$3.18 billion.

TSMC paid dividends of NT\$3.0 in cash and 0.5 percent in stock per common share in 2008.

Based on the increase on the previous expansion, the purchase of production equipment and research and development expenditures, TSMC is entitled to tax incentives, such as tax exemption and investment tax credits. For more information, review TSMC's "Income Tax" disclosed in the "Financial Information" of Annual Report (II), page 19-20.