Taiwan Semiconductor Manufacturing Co Ltd

S&P Capital IQ

| **Recommendation**	BUY ★★★★☆	**Price** $29.63 (as of Jan 06, 2017 4:00 PM ET)	**12-Mo. Target Price** $35.00	**Report Currency** USD

Equity Analyst Tzyy Loon Ng

GICS Sector Information Technology
Sub-Industry Semiconductors

Summary This company is the world's largest dedicated semiconductor foundry.

Key Stock Statistics (Source S&P Capital IQ, Vickers, company reports)

52-Wk Range	$31.62– 20.45	S&P Oper. EPS 2016**E**	2.01	Market Capitalization(B)	$153.663	Beta	0.98
Trailing 12-Month EPS	$1.80	S&P Oper. EPS 2017**E**	2.27	Yield (%)	2.53	S&P 3-Yr. Proj. EPS CAGR(%)	8
Trailing 12-Month P/E	16.5	P/E on S&P Oper. EPS 2016**E**	14.7	Dividend Rate/Share	$0.75	S&P Quality Ranking	NR
$10K Invested 5 Yrs Ago	$26,276	Common Shares Outstg. (M)	25,930.4	Institutional Ownership (%)	4		

Price Performance
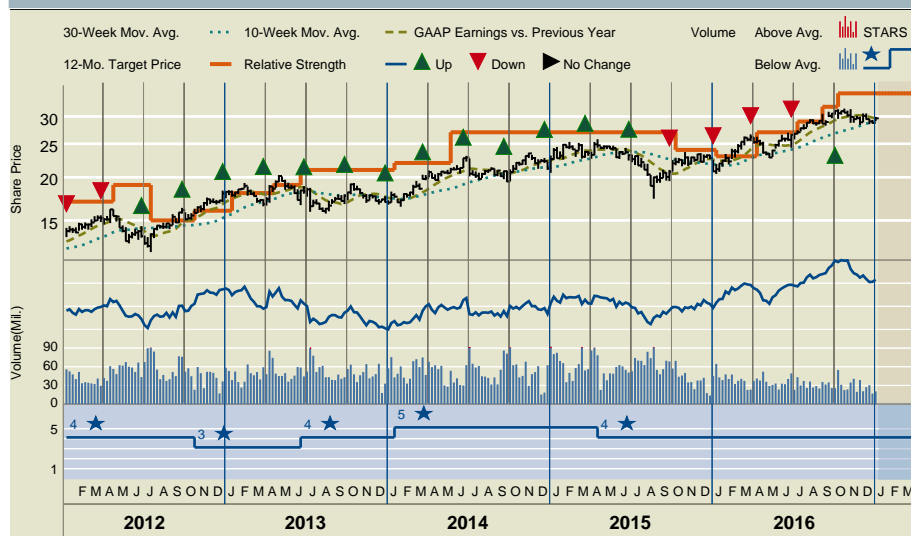
Past performance is not an indication of future performance and should not be relied upon as such.

Analysis prepared by Equity Analyst **Tzyy Loon Ng** on Oct 13, 2016 09:11 AM, when the stock traded at **$31.35**.

Highlights

➤ We expect TSM's revenue to grow by 10% in 2017, following our projection for a 10% increase in 2016 and an 11% rise in 2015. We see sales growth backed by rising demand for high performance chips (i.e. 16nm FinFET) in the smartphone industry, which brings better power efficiency and higher speed. Also, we expect orders to accelerate in the second half, with the launch of a new iPhone model and high-end Android devices. Nonetheless, we think there is a valid concern for slowing demand growth for smartphones, particularly from emerging markets. TSM plans to increase capital spending to $9-$10 billion in 2016, which we believe will be mainly used for its 10nm product development.

➤ We expect TSM's EBIT margin to compress in 2016 due to increasing R&D and depreciation expenses and margin dilution related to its 10 nanometer (nm) production. On the positive side, TSM's 10nm is ready for mass production by year-end 2016, earlier than its initial schedule, which could potentially improve its net profit margin in 2017.

➤ We see earnings per ADS of $2.01 in 2016 and $2.27 in 2017.

Investment Rationale/Risk

➤ We think TSM's business will continue to grow given its solid track record and experienced management team. Its leading position in the pure foundry service industry with more than 50% market share will help TSM to tap into the mobile growth opportunity (smartphones, tablets, wearables, etc.) given a slowdown within the PC segment. TSM expects to start mass 10nm production in the fourth quarter of 2016 (7nm in 2017), which we think will support growth and strengthen its market position. TSM's strong earnings growth, stable cash generation and net-cash position will ease its financial burden given ambitious capital spending plans, in our view.

➤ Risks to our recommendation and target price include worse-than-expected economic conditions that lead to further cuts in orders from the company's chip customers, and greater-than-expected depreciation of the U.S. dollar against the Taiwan dollar.

➤ Our 12-month target price of $35 is based on a P/E of 15.4X our 2017 earnings per ADS estimate, which is at a premium to the 14X multiple for its domestic peers to reflect TSM's market position and above-average ROE.

Analyst's Risk Assessment

LOW	MEDIUM	HIGH

Our risk assessment reflects the company's exposure to the sales cycles of the semiconductor industry; competition from smaller wafer foundries and integrated semiconductor makers; and high capital spending requirements. Also, an industry trend toward outsourcing, which has aided growth, will eventually reach its limits.

Revenue/Earnings Data

Revenue (Million $)

	1Q	2Q	3Q	4Q	Year
2016	6,143	6,840	8,208	--	--
2015	7,032	6,656	6,637	6,229	26,550
2014	4,893	6,075	6,962	7,209	25,148
2013	4,498	5,217	5,444	4,932	20,098
2012	3,553	4,323	4,740	4,505	17,119
2011	3,593	3,825	3,647	3,459	14,517

Earnings Per ADS ($)

	1Q	2Q	3Q	4Q	Year
2016	0.38	0.43	0.59	--	E2.01
2015	0.48	0.50	0.45	0.43	1.86
2014	0.31	0.38	0.49	0.50	1.68
2013	0.26	0.33	0.34	0.29	1.22
2012	0.22	0.27	0.32	0.28	1.08
2011	0.24	0.24	0.20	0.20	0.88

Fiscal year ended Dec. 31. Next earnings report expected: NA. EPS Estimates based on S&P Capital IQ Operating Earnings; historical GAAP earnings are as reported in Company reports.

Dividend Data

Amount ($)	Date Decl.	Ex-Div. Date	Stk. of Record	Payment Date
0.752	Jun 10	Jun 27	Jun 29	Jul 21 '16

Dividends have been paid since 2004. Source: Company reports.

Past performance is not an indication of future performance and should not be relied upon as such.

Taiwan Semiconductor Manufacturing Co Ltd

Business Summary October 13, 2016

CORPORATE OVERVIEW. Taiwan Semiconductor Manufacturing Co. Ltd. manufactures semiconductors using advanced production processes for customers based on its own or third parties' proprietary integrated circuit (IC) designs. TSM offers a wide range of leading-edge wafer fabrication processes, including processes to manufacture CMOS logic, mixed-signal, radio frequency and embedded memory and BiCMOS mixed-signal and other semiconductors.

TSM manufactures semiconductors on silicon wafers based on proprietary circuitry designs provided by customers or third party designers. According to the company, two key factors that characterize a foundry's manufacturing capabilities are output capacity and fabrication process technologies. Since its establishment, TSM has possessed the largest capacity among the world's dedicated foundries.

The semiconductor industry is characterized by rapid changes in technology, frequently resulting in the introduction of new technologies to meet customers' demands and in the obsolescence of recently introduced technology and products. The company believes that, in order to stay technologically ahead of its competitors and maintain its market position in the foundry segment of the semiconductor industry, it needs to maintain its position as a technology leader not only in the foundry segment but in the semiconductor industry in general.

The company also believes it is the technology leader among the dedicated foundries in terms of net sales of advanced semiconductors, and is one of the leaders in the semiconductor manufacturing industry generally. The company began mass production of its 20 nanometer products in 2014, and 16 nanometers in 2015.

Each ADS represents five shares of Taiwan Semiconductor Manufacturing Co. Ltd.

Among TSM's fabless customers are Broadcom, Marvell, Microsoft, Nvidia and Qualcomm. The company also serves integrated device manufacturers (IDMs) including Advanced Micro Devices, Analog Devices, Freescale Semiconductor and STMicroelectronics; these "fabbed" semiconductor makers seek foundries for a portion of their wafer manufacturing needs.

CORPORATE STRATEGY. To remain competitive, TSM intends to maintain its strategy of expanding manufacturing capacity and improving manufacturing process technology to meet both the fabrication and the technological needs of its customers. Based on estimates of market demand, TSM expects to continue adding capacity to its 300mm wafer fabs.

The company believes that the main factors that affect its sales results are the worldwide demand for semiconductor products, pricing, worldwide production capacity including its own, capacity utilization, technology migrations, and fluctuations in the foreign currency exchange rates.

FINANCIAL TRENDS. The company's revenues are generally cyclical and are influenced by economic and semiconductor industry factors, such as GDP, pricing pressure, industry-wide inventory levels, and customer product cycles. With relatively high fixed manufacturing costs, gross and operating margins shift with varying order levels and capacity plant utilization rates, among other more variable operating expenses. Consequently, profits have also been highly variable compared to those of companies in other industries, but less volatile compared to some other foundries.

Taiwan Semiconductor Manufacturing Co Ltd

**S&P
Capital IQ**

Quantitative Evaluations

**S&P Capital IQ
Fair Value
Rank**   4

1	2	3	**4**	5

LOWEST   HIGHEST

Based on S&P Capital IQ's proprietary quantitative model, stocks are ranked from most overvalued (1) to most undervalued (5).

**Fair Value
Calculation** $33.70

Analysis of the stock's current worth, based on S&P Capital IQ's proprietary quantitative model suggests that TSM is slightly undervalued by $4.07 or 13.7%.

**Investability
Quotient
Percentile**

73

LOWEST = 1   HIGHEST = 100

TSM scored higher than 73% of all companies for which an S&P Capital IQ Report is available.

Volatility

LOW	AVERAGE	HIGH

**Technical
Evaluation**   NEUTRAL

Since November, 2016, the technical indicators for TSM have been NEUTRAL.

Insider Activity   NA

UNFAVORABLE	NEUTRAL	FAVORABLE

Expanded Ratio Analysis

	2015	2014	2013	2012
Price/Sales	4.44	4.62	4.50	5.20
Price/EBITDA	6.91	7.10	7.35	8.42
Price/Pretax Income	10.70	11.65	12.47	14.49
P/E Ratio	12.23	13.35	14.29	15.86
Avg. Diluted Shares Outstg (M)	5,186.1	5,186.0	5,185.9	5,185.6

Figures based on calendar year-end price

Key Growth Rates and Averages

Past Growth Rate (%)	1 Year	3 Years	5 Years	9 Years
Sales	5.57	16.66	16.23	13.48
Net Income	10.95	21.45	16.00	13.22
Ratio Analysis (Annual Avg.)				
Net Margin (%)	36.34	34.14	33.34	33.29
% LT Debt to Capitalization	13.56	16.81	12.66	7.68
Return on Equity (%)	27.52	26.53	25.36	24.18

Company Financials Fiscal Year Ended Dec. 31

Per ADS Data ($)	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
Tangible Book Value	1.41	1.26	1.08	0.95	0.79	0.75	0.58	2.74	2.88	2.95
Cash Flow	0.64	0.59	0.45	0.39	0.31	0.30	0.99	1.07	1.09	7.61
Earnings	1.86	1.68	1.22	1.08	0.88	0.99	0.52	0.61	0.64	0.74
Dividends	0.58	0.40	0.40	0.90	0.41	0.37	0.36	0.40	0.35	0.31
Payout Ratio	31%	24%	33%	83%	47%	38%	70%	65%	56%	42%
Prices:High	25.77	23.54	20.30	17.47	14.05	12.73	11.94	11.85	11.69	11.11
Prices:Low	17.32	16.44	15.70	12.14	10.75	9.30	6.67	5.80	8.67	7.85
P/E Ratio:High	14	14	17	16	16	13	23	20	18	15
P/E Ratio:Low	9	10	13	11	12	9	13	10	14	11

Income Statement Analysis (Million $)	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
Revenue	26,550	25,148	20,098	17,119	14,517	13,304	8,941	10,544	9,801	9,756
Operating Income	17,077	16,357	12,308	10,564	8,395	7,762	5,224	6,121	5,824	6,178
Depreciation	7,003	6,602	5,258	4,442	3,581	2,714	2,443	2,494	2,430	2,266
Interest Expense	100	107	89.1	34.5	21.3	13.5	11.8	20.2	25.6	27.4
Pretax Income	11,030	9,960	7,254	6,139	4,934	5,400	2,886	3,528	3,695	4,099
Effective Tax Rate	12.5%	12.7%	12.8%	8.59%	7.37%	4.69%	6.28%	9.82%	9.60%	5.83%
Net Income	9,649	8,696	6,329	5,612	4,570	5,146	2,697	3,163	3,339	3,860

Balance Sheet & Other Financial Data (Million $)	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
Cash	17,906	13,821	8,213	5,193	4,984	6,251	6,119	6,500	2,911	3,614
Current Assets	22,645	19,819	12,000	8,681	7,429	8,961	8,120	8,243	7,656	7,984
Total Assets	50,264	47,293	42,280	32,863	25,537	24,633	18,586	17,030	17,494	18,019
Current Liabilities	6,436	6,358	6,353	4,901	3,859	4,221	2,473	1,854	1,493	1,437
Long Term Debt	5,822	6,759	7,055	2,753	646	165	141	180	456	423
Common Equity	37,047	33,072	28,370	24,885	20,765	19,672	15,473	14,515	14,927	15,580
Total Capital	42,928	39,839	35,443	27,819	21,723	20,157	15,767	15,068	15,493	16,038
Capital Expenditures	7,809	9,127	9,621	8,470	7,057	6,405	2,744	1,804	2,552	2,420
Cash Flow	16,653	15,298	11,587	10,054	8,151	7,860	5,141	5,657	5,770	6,126
Current Ratio	3.5	3.1	1.9	1.8	1.9	2.1	3.3	4.5	5.1	5.6
% Long Term Debt of Capitalization	13.6	17.0	19.9	9.9	3.0	0.8	0.9	1.2	2.9	2.6
% Net Income of Revenue	36.3	34.6	31.5	32.8	31.5	38.7	30.2	30.0	34.1	39.6
% Return on Assets	19.8	19.4	16.9	19.2	18.2	23.8	15.2	18.3	19.0	22.7
% Return on Equity	27.5	28.3	23.8	24.6	22.6	29.3	18.0	21.5	22.1	26.3

Data as originally reported in Company reports.; bef. results of disc opers/spec. items. Per share data adj. for stk. divs.; EPS diluted. E-Estimated. NA-Not Available. NM-Not Meaningful. NR-Not Ranked. UR-Under Review.

Taiwan Semiconductor Manufacturing Co Ltd

S&P Capital IQ

Sub-Industry Outlook

We have a positive fundamental outlook for the semiconductors sub-industry for the next 12 months. We see a low single digit percentage rebound in semiconductor revenue for 2017 following our projection for a 2% decline in 2016, as demand for smartphone and other mobile devices improve and PC declines moderate. We think challenging economic conditions resulted in a revenue decline of about 0.2% in 2015 following a sharp 10% increase in 2014. We expect a fairly normalized inventory supply chain to leave the supply-demand balance even to slightly favorable for inventory replenishment, which should contribute to potential upside as demand improves. We expect earnings per share to outstrip top-line growth, growing 3% to 5% in 2016 and by a high-single digit percentage in 2017, partly due to synergies from consolidation.

We see orders improving in 2017 as next-generation product launches support higher wireless demand. While we expect secular declines to persist in PC space, we see more favorable comparisons and an aging infrastructure supporting more modest declines going forward. We believe the communications and consumer end markets will remain healthy despite periods of lumpiness, as carrier comments in China suggest to us an improved spending outlook, and continued growth in smartphones. We believe the automotive sector has some favorable secular tailwinds despite soft global trends. We think industrial will improve. Given the high exposure to this end market, analog semiconductors are particularly exposed to this trend. All of this is against the backdrop of the proliferation of semiconductors across a range of electronic products and markets. Industry margins continue to be a function of manufacturing utilization and inventory supply-demand imbalances.

While companies that outsource manufacturing

typically have more stability in gross margins (a trade-off for capped upside), others that have their own manufacturing see more variability. We believe some companies, especially in analog, maintain higher inventory levels, reducing potential leverage. Companies in the industry seem more inclined to increase debt levels given their strong balance sheets and low interest rate environment. Healthy free cash flow generation will likely result in greater shareholder return via share repurchases and dividend increases.

Year-to-date through December 9, 2016, the S&P 1500 Semiconductors sub-industry has risen 11.8% compared to a 24.4% increase for the S&P 1500 Index. For the full-year 2015, the S&P Semiconductors sub-industry rose 0.2%, versus a 1.0% decline for the S&P 1500 Index.

--Angelo Zino, CFA

Industry Performance

GICS Sector: Information Technology
Sub-Industry: Semiconductors

Based on S&P 1500 Indexes
Five-Year market price performance through Jan 7, 2017
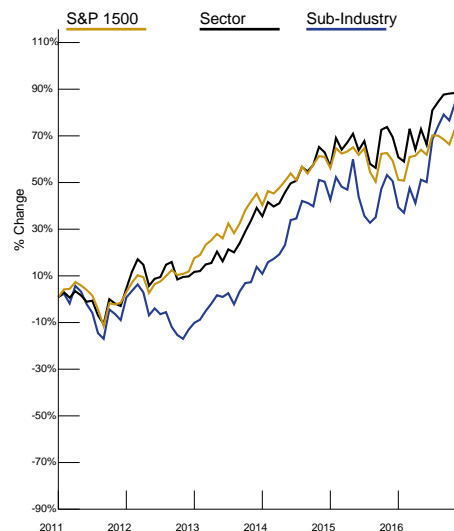
NOTE: All Sector & Sub-Industry information is based on the Global Industry Classification Standard (GICS)

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Sub-Industry : Semiconductors Peer Group*: Semiconductors - Foundry Services

Peer Group	Stock Symbol	Stk.Mkt. Cap. (Mil. $)	Recent Stock Price($)	52 Week High/Low($)	Beta	Yield (%)	P/E Ratio	Fair Value Calc.($)	Quality Ranking	S&P IQ %ile	Return on Revenue (%)	LTD to Cap (%)
Taiwan Semiconductor Mfg ADS	**TSM**	153,663	29.63	31.62/20.45	0.98	2.5	16	33.70	NR	73	36.3	13.6
Advanced Semi Eng ADR	ASX	8,100	5.28	6.23/4.40	1.06	3.4	16	5.70	NR	12	7.1	25.3
Semiconductor Mfg Intl ADS	SMI	62,652	7.41	7.74/3.84	1.30	Nil	22	NA	NR	24	9.9	15.0
Siliconware Precision ADS	SPIL	4,574	7.34	8.36/6.60	1.21	6.7	24	NA	NR	40	10.6	21.1
Tower Semiconductor	TSEM	1,674	19.38	20.04/10.36	1.35	Nil	9	21.20	NR	17	NA	38.0
United Microelectronics ADR	UMC	4,395	1.80	2.14/1.64	1.29	3.3	16	NA	NR	12	8.9	16.7

NA-Not Available NM-Not Meaningful NR-Not Rated. *For Peer Groups with more than 15 companies or stocks, selection of issues is based on market capitalization.

Taiwan Semiconductor Manufacturing Co Ltd

Analyst Research Notes and other Company News

November 9, 2016
Taiwan Semiconductor Manufacturing Company Limited announced that at its board meeting held on November 8, 2016 approved the following personnel promotions: Promoted Vice President of Operations Organization Mr. YP Chin to Senior Vice President, Promoted Vice President of R&D Organization Dr. YJ Mii to Senior Vice President,Promoted Senior Director of R&D Organization's Integrated Interconnect & Packaging Dr. CH Yu to Vice President, Promoted Senior Director of R&D Organization's More-than-Moore Technologies and TSMC Fellow Dr. Alexander Kalnitsky to Vice President. The company also approved the appointment of Dr. Kevin Zhang as Vice President of Design and Technology Platform (DTP). Dr. Kevin Zhang will be responsible for Memory and Mixed Signal & RF Solutions and reports to Dr. Cliff Hou, Vice President of DTP, directly.

October 13, 2016
08:59 am ET ... S&P GLOBAL MAINTAINS BUY RECOMMENDATION ON ADSS OF TAIWAN SEMICONDUCTOR (TSM 31.35****): We increase our 12-month target by $3 to $35, implying a '17 P/E of 15.4X, above its 3-year average and peers to reflect our view of better growth prospects and return on equity. We keep our '16 earnings per ADS estimate at $2.01 and '17's at $2.27. Sales rose 22.5%, on higher volume and average selling prices. Margins benefited from rising sales for advanced products. We remain optimistic about growth opportunities in mobile and expect next generation technology product ramps to support double digit revenue growth as well as sustain TSM's high foundry market share. /Tzyy Loon Ng, /A. Zino-CFA

September 8, 2016
09:35 am ET ... S&P GLOBAL MAINTAINS BUY RECOMMENDATION ON ADSS OF TAIWAN SEMICONDUCTOR (TSM 29.82****): We increase our 12-month target by $3 to $32, implying a '16 P/E of 15.9X, above its 3-year average and peers to reflect our view of TSM's growth prospects and its technology lead advantage. We raise our '16 earnings per ADS estimate by $0.11 to $2.01 and '17's by $0.15 to $2.27. We expect revenue growth to accelerate in the second half, aided by next generation iPhone and other smartphone product launches. We think TSM's ongoing efforts to introduce more innovative products provide significant revenue visibility, and help it to stay ahead of peers and gain market share. /Tzyy Loon Ng, /A. Zino-CFA

July 14, 2016
08:32 am ET ... S&P GLOBAL MAINTAINS BUY RECOMMENDATION ON ADSS OF TAIWAN SEMICONDUCTOR (TSM 26.89****): We increase our 12-month target by $2 to $29, implying a '16 P/E of 15.3X, near its 3-year average but above peers to reflect its technology lead advantage. We raise our '16 earnings per ADS estimate by $0.03 to $1.90 and '17's by $0.06 to $2.12. Sales rose 8%, reflecting higher wafer shipments and orders from Asia. While near term margins will compress, partly reflecting initial 10 nm production, we see benefits once this higher margin product ramps. We expect revenue growth to accelerate in the second half, aided by next generation iPhone and other smartphone product launches. /A. Zino-CFA

April 14, 2016
08:27 am ET ... S&P CAPITAL IQ MAINTAINS BUY RECOMMENDATION ON ADSS OF TAIWAN SEMICONDUCTOR (TSM 26.17****): We lift our 12-month target by $4 to $27, implying a '16 P/E of 14.7X, near its 3-year average but above peers to reflect its technology lead advantage. We raise our '16 earnings per ADS estimate by $0.08 to $1.87 and '17's by $0.09 to $2.06. Sales fell 8.3% in Q1, hurt by lower wafer shipments, while margins narrowed on declining utilization. We note sluggish Q1 demand growth for smartphones, particularly from emerging markets and at the high-end. Still, we see TSM benefiting from new smartphone launches in the second half of '16 and rising demand for high-performance chips. /Tzyy Loon Ng, /A. Zino-CFA

January 14, 2016
08:47 am ET ... S&P CAPITAL IQ MAINTAINS BUY RECOMMENDATION ON ADSS OF TAIWAN SEMICONDUCTOR (TSM 20.48****): We reduce our 12-month target by $1 to $23, implying a '16 P/E of 12.9X, near its 3-year average. We cut our '16 earnings per ADS estimate by $0.13 to $1.79 and initiate '17's at $1.97. TSM posts '15 revenue growth of 10.6% and EPS growth of 16.2%, near expectations. Despite concerns about the smartphone area, we see healthy growth through '17, supported by rising demand for high-end performance chips. We see orders accelerating in the second half with a potential iPhone 7 launch and new Android

devices. We expect capex increases to be used towards 10nm product development. /Tzyy Loon Ng, A. Zino-CFA

October 15, 2015
10:10 am ET ... S&P CAPITAL IQ MAINTAINS BUY RECOMMENDATION ON ADSS OF TAIWAN SEMICONDUCTOR (TSM 22.34****): We reduce our 12-month target price by $3 to $24, on '16 P/E of 12.7X, near its three-year average but above peers to reflect TSMC's technology advantage. We trim our '15 earnings per ADS estimate by $0.07 to $1.80 and '16's by $0.14 to $1.92. Sales rose 3.4%, helped by favorable currency and higher sales to its U.S. clients. EBIT grew a slower at 1.7%, due to an inventory adjustment and the ramp-up of its 16nm technology. We expect its advanced products (28nm and below 48% of Q3 revenue) be the earnings driver as the rising complexity of smartphone requirements drive demand. /Tzyy Loon Ng, /A. Zino-CFA
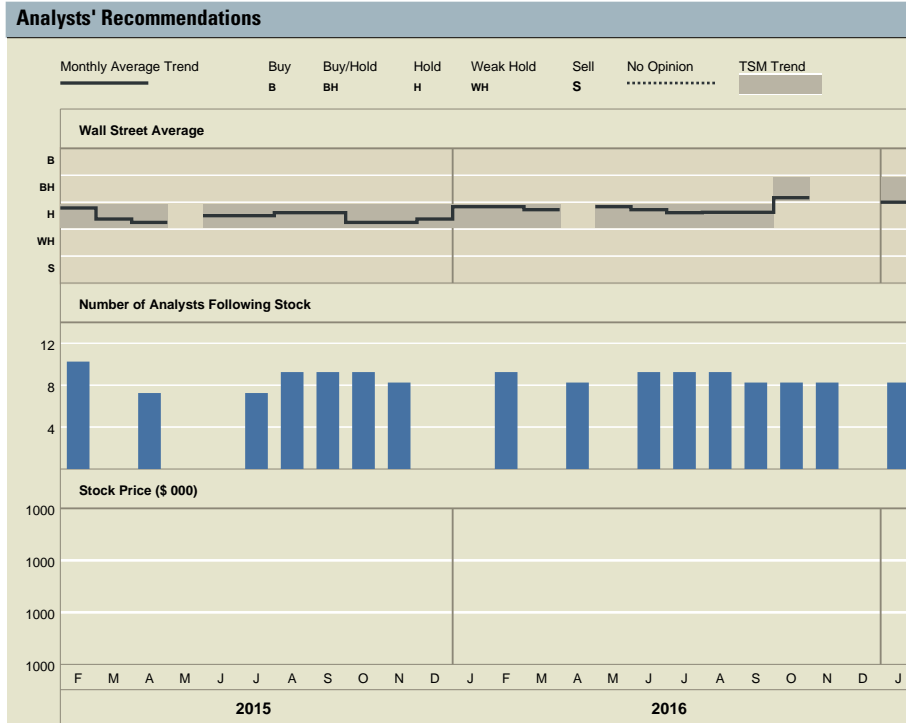
September 28, 2015
09:46 am ET ... S&P CAPITAL IQ MAINTAINS BUY RECOMMENDATION ON ADSS OF TAIWAN SEMICONDUCTOR (TSM 20.05****): Last week, TSM announced Q3 sales will be between NT$211 billion and NT$213 billion, exceeding prior guidance, mainly due to favorable USD exchange rate. Gross/operating margins are expected to be near TSM's outlook. TSM also provides preliminary Q4 sales outlook of NT$198 billion and NT$204 billion, modestly below consensus. We attribute the lower Q4 outlook to slowing smartphone shipment growth (mainly low/mid tier) and as customers digest inventories. We expect forex moves to act as a buffer and should help TSM grow revenue in '15 by double digits, near its original outlook. /Tzyy Loon Ng, /A. Zino-CFA

July 16, 2015
01:25 pm ET ... S&P CAPITAL IQ KEEPS BUY RECOMMENDATION ON ADSS OF TAIWAN SEMICONDUCTOR (TSM 22.64****): We reiterate our 12-month target price at $27, on P/E above domestic peers to reflect TSM's superior market share position. We keep our '15 earnings per ADS estimate at $1.87 and '16's at $2.06. TSM posts Q2 operating earnings per ADS of $0.50 vs. $0.38, beating the $0.44 Capital IQ consensus estimate. Sales fell 6.4% (down 7.5% in constant currency), near expectations, on declines across all applications, with computer and consumer down the most. We think soft demand for low-end smartphones is negatively impacting sales, but see new high-end devices aiding second half growth. /Tzyy Loon Ng, /A. Zino-CFA

Taiwan Semiconductor Manufacturing Co Ltd

Analysts' Recommendations

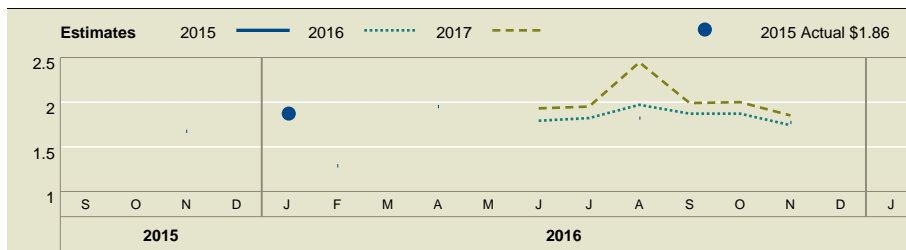Of the total 8 companies following TSM, 8 analysts currently publish recommendations.

	No. of Recommendations	% of Total	1 Mo. Prior	3 Mos. Prior
Buy	2	25	0	3
Buy/Hold	1	12	0	1
Hold	4	50	0	4
Weak Hold	1	12	0	1
Sell	0	0	0	0
No Opinion	0	0	0	0
Total	**8**	**100**	**0**	**9**

Wall Street Consensus Estimates

Fiscal Years	Avg Est.	High Est.	Low Est.	# of Est.	Est. P/E
2017	2.14	2.31	1.81	6	13.8
2016	1.98	2.01	1.97	7	15.0
2017 vs. 2016	▲ **8%**	▲ **15%**	▼ **-8%**	▼ **-14%**	▼ **-8%**
Q4'17	0.59	0.62	0.56	3	50.2
Q4'16	0.58	0.59	0.57	5	51.1
Q4'17 vs. Q4'16	▲ **2%**	▲ **5%**	▼ **-2%**	▼ **-40%**	▼ **-2%**

A company's earnings outlook plays a major part in any investment decision. S&P Capital IQ organizes the earnings estimates of over 2,300 Wall Street analysts, and provides their consensus of earnings over the next two years, as well as how those earnings estimates have changed over time. Note that the information provided in relation to consensus estimates is not intended to predict actual results and should not be taken as a reliable indicator of future performance.

Wall Street Consensus Opinion

BUY/HOLD

Companies Offering Coverage

BofA Merrill Lynch
Credit Suisse
Deutsche Bank
Goldman Sachs
Morningstar Inc.
Pacific Crest Securities-KBCM
Sanford C. Bernstein & Co., Inc.
Susquehanna Financial Group, LLLP

Wall Street Consensus vs. Performance

For fiscal year 2016, analysts estimate that TSM will earn US$ 1.98. For the 3rd quarter of fiscal year 2016, TSM announced earnings per share of US$ 0.59, representing 30% of the total annual estimate. For fiscal year 2017, analysts estimate that TSM's earnings per share will grow by 8% to US$ 2.14.

Taiwan Semiconductor Manufacturing Co Ltd

Glossary

S&P Capital IQ STARS

Since January 1, 1987, S&P Capital IQ Equity Research has ranked a universe of U.S. common stocks, ADRs (American Depositary Receipts), and ADSs (American Depositary Shares) based on a given equity's potential for future performance. Similarly, S&P Capital IQ Equity Research has ranked Asian and European equities since June 30, 2002. Under proprietary STARS (STock Appreciation Ranking System), equity analysts rank equities according to their individual forecast of an equity's future total return potential versus the expected total return of a relevant benchmark (e.g., a regional index (S&P Asia 50 Index, S&P Europe 350® Index or S&P 500® Index)), based on a 12-month time horizon. STARS was designed to meet the needs of investors looking to put their investment decisions in perspective. Data used to assist in determining the STARS ranking may be the result of the analyst's own models as well as internal proprietary models resulting from dynamic data inputs.

S&P Capital IQ Quality Ranking

(also known as **S&P Capital IQ Earnings & Dividend Rankings**) - Growth and stability of earnings and dividends are deemed key elements in establishing S&P Capital IQ's earnings and dividend rankings for common stocks, which are designed to capsulize the nature of this record in a single symbol. It should be noted, however, that the process also takes into consideration certain adjustments and modifications deemed desirable in establishing such rankings. The final score for each stock is measured against a scoring matrix determined by analysis of the scores of a large and representative sample of stocks. The range of scores in the array of this sample has been aligned with the following ladder of rankings:

A+	Highest	B	Below Average
A	High	B-	Lower
A-	Above Average	C	Lowest
B+	Average	D	In Reorganization
NR	Not Ranked		

S&P Capital IQ EPS Estimates

S&P Capital IQ earnings per share (EPS) estimates reflect analyst projections of future EPS from continuing operations, and generally exclude various items that are viewed as special, non-recurring, or extraordinary. Also, S&P Capital IQ EPS estimates reflect either forecasts of equity analysts; or, the consensus (average) EPS estimate, which are independently compiled by Capital IQ, a data provider to S&P Capital IQ Equity Research. Among the items typically excluded from EPS estimates are asset sale gains; impairment, restructuring or merger-related charges; legal and insurance settlements; in process research and development expenses; gains or losses on the extinguishment of debt; the cumulative effect of accounting changes; and earnings related to operations that have been classified by the company as discontinued. The inclusion of some items, such as stock option expense and recurring types of other charges, may vary, and depend on such factors as industry practice, analyst judgment, and the extent to which some types of data is disclosed by companies.

S&P Capital IQ Core Earnings

S&P Capital IQ Core Earnings is a uniform methodology for adjusting operating earnings by focusing on a company's after-tax earnings generated from its principal businesses. Included in the definition are employee stock option grant expenses, pension costs, restructuring charges from ongoing operations, write-downs of depreciable or amortizable operating assets, purchased research and development, M&A related expenses and unrealized gains/losses from hedging activities. Excluded from the definition are pension gains, impairment of goodwill charges, gains or losses from asset sales, reversal of prior-year charges and provision from litigation or insurance settlements.

S&P Capital IQ 12-Month Target Price

The equity analyst's projection of the market price a given security will command 12 months hence, based on a combination of intrinsic, relative, and private market valuation metrics, including S&P Capital IQ Fair Value.

S&P Capital IQ Equity Research

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Abbreviations Used in S&P Capital IQ Equity Research Reports

CAGR - Compound Annual Growth Rate
CAPEX - Capital Expenditures
CY - Calendar Year
DCF - Discounted Cash Flow
DDM - Dividend Discount Model
EBIT - Earnings Before Interest and Taxes
EBITDA - Earnings Before Interest, Taxes, Depreciation and Amortization

EPS - Earnings Per Share
EV - Enterprise Value
FCF - Free Cash Flow
FFO - Funds From Operations
FY - Fiscal Year
P/E - Price/Earnings
P/NAV - Price to Net Asset Value
PEG Ratio - P/E-to-Growth Ratio
PV - Present Value
R&D - Research & Development
ROCE - Return on Capital Employed
ROE - Return on Equity
ROI - Return on Investment
ROIC - Return on Invested Capital
ROA - Return on Assets
SG&A - Selling, General & Administrative Expenses
SOTP - Sum-of-The-Parts
WACC - Weighted Average Cost of Capital

Dividends on American Depository Receipts (ADRs) and American Depository Shares (ADSs) are net of taxes (paid in the country of origin).

S&P Capital IQ Qualitative Risk Assessment

Reflects an equity analyst's view of a given company's operational risk, or the risk of a firm's ability to continue as an ongoing concern. The Qualitative Risk Assessment is a relative ranking to the S&P U.S. STARS universe, and should be reflective of risk factors related to a company's operations, as opposed to risk and volatility measures associated with share prices. For an ETF this reflects on a capitalization-weighted basis, the average qualitative risk assessment assigned to holdings of the fund.

STARS Ranking system and definition:
★★★★★ **5-STARS (Strong Buy):**
Total return is expected to outperform the total return of a relevant benchmark, by a wide margin over the coming 12 months, with shares rising in price on an absolute basis.
★★★★☆ **4-STARS (Buy):**
Total return is expected to outperform the total return of a relevant benchmark over the coming 12 months, with shares rising in price on an absolute basis.
★★★☆☆ **3-STARS (Hold):**
Total return is expected to closely approximate the total return of a relevant benchmark over the coming 12 months, with shares generally rising in price on an absolute basis.
★★☆☆☆ **2-STARS (Sell):**
Total return is expected to underperform the total return of a relevant benchmark over the coming 12 months, and the share price not anticipated to show a gain.
★☆☆☆☆ **1-STAR (Strong Sell):**
Total return is expected to underperform the total return of a relevant benchmark by a wide margin over the coming 12 months, with shares falling in price on an absolute basis.

Relevant benchmarks:
In North America, the relevant benchmark is the S&P 500 Index, in Europe and in Asia, the relevant benchmarks are the S&P Europe 350 Index and the S&P Asia 50 Index, respectively.

Taiwan Semiconductor Manufacturing Co Ltd

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STARS Stock Reports:

Qualitative STARS recommendations are determined and assigned by equity analysts. For reports containing STARS recommendations refer to the Glossary section of the report for detailed methodology and the definition of STARS rankings.

Quantitative Stock Reports:

Quantitative recommendations are determined by ranking a universe of common stocks based on 5 measures or model categories: Valuation, Quality, Growth, Street Sentiment, and Price Momentum. In the U.S., a sixth sub-category for Financial Health will also be displayed. Percentile scores are used to compare each company to all other companies in the same universe for each model category. The five (six) model category scores are then weighted and rolled up into a single percentile ranking for that company. For reports containing quantitative recommendations refer to the Glossary section of the report for detailed methodology and the definition of Quantitative rankings.

STARS Stock Reports and Quantitative Stock Reports:

The methodologies used in STARS Stock Reports and Quantitative Stock Reports (collectively, the "S&P Capital IQ Research Reports" or "Research Reports") reflect different criteria, assumptions and analytical methods and may have differing recommendations. The methodologies and data used to generate the different types of Research Reports are believed by the author and distributor reasonable and appropriate. Generally, CFRA does not generate reports with different ranking methodologies for the same issuer. However, in the event that different methodologies or data are used on the analysis of an issuer, the methodologies may lead to different views or recommendations on the issuer, which may at times result in contradicting assessments of an issuer. CFRA reserves the right to alter, replace or vary models, methodologies or assumptions from time to time and without notice to clients.

STARS Stock Reports:

Global STARS Distribution as of September 30, 2016

Ranking	North America	Europe	Asia	Global
Buy	25.0%	29.3%	16.1%	24.6%
Hold	50.6%	53.7%	77.4%	54.7%
Sell	24.4%	17.0%	6.5%	20.7%
Total	100%	100%	100%	100%

Analyst Certification

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