

August 10, 2021 11:51 AM GMT

TSMC | Asia Pacific

Our thoughts on July sales trend and the Intel CPU outsourcing schedule; EW

Stock Rating
Equal-weight

Industry View
In-Line

Price Target
NT\$580.00

TSMC posted its July sales with a 16% M/M decline. Some investors are concerned whether this indicates a demand issue. We don't think so and believe it is just the product transition of Apple's 5nm processor (shifting from A14 to A15) in July. The output of the new A15 chip is set to ramp up in August, and we believe TSMC can track its original 3Q revenue guidance of up 10-12% Q/Q. Our contrarian EW thesis is more on the gross margin concern, not the revenue.

On the other hand, we think a local news report today may have exaggerated the timing of Intel's 3nm CPU production. Econ Daily (Aug 10, 2021) indicated that Intel's 3nm sever CPU will start mass production in July 2022. However, as we wrote in our Insight report (link), mass production timing of Intel's 3nm CPU should be around mid-2023. We think TSMC stock may see some volatility in the near term if the report is proven to be inaccurate about the 3nm schedule.

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TSMC (2330.TW, 2330 TT)

Greater China Technology Semiconductors / Taiwan

Stock Rating	Equal-weight
Industry View	In-Line
Price target	NT\$580.00
Up/downside to price target (%)	(2)
Shr price, close (Aug 10, 2021)	NT\$591.00
52-Week Range	NT\$679.00-401.00
Sh out, dil, curr (mn)	25,930
Mkt cap, curr (mn)	NT\$15,324,855
EV, curr (mn)	NT\$14,983,185
Avg daily trading value (mn)	NT\$23,803

Fiscal Year Ending	12/20	12/21e	12/22e	12/23e
ModelWare EPS (NT\$)	19.97	22.20	24.88	30.01
Prior ModelWare EPS (NT\$)	-	-	-	-
EPS (NT\$)§	19.83	22.46	26.04	30.94
Revenue, net (NT\$ bn)	1,339.3	1,557.8	1,827.0	2,191.8
ModelWare net inc (NT\$ bn)	517.9	575.7	645.2	778.2
P/E	26.5	26.6	23.8	19.7
P/BV	7.4	7.3	6.5	5.6
RNOA (%)	35.9	34.5	36.9	37.8
ROE (%)	31.9	31.1	30.7	33.0
Div yld (%)	2.5	2.5	2.5	2.5

Unless otherwise noted, all metrics are based on Morgan Stanley ModelWare

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Valuation Methodology and Risks

TSMC (2330.TW)

Base case, residual income model. Key assumptions: a cost of equity of 9.2% (beta of 1.2, risk free rate of 2.0% and risk premium of 6.0%), an intermediate growth rate of 9.5%, a terminal growth rate of 4% and a payout ratio of 80%.

Risks to Upside

- New killer apps in tech justify cost of further chip scaling.
- Samsung and Intel face new node migration challenges.
- Logic semi cycle stays strong in 2022 and 2023.
- TSMC successfully reprices leading-edge foundry services against big customers.

Risks to Downside

- Samsung's and Intel's node migration is faster and smoother than expected.
- Capex for 3nm/2nm nodes is more demanding than expected.

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(as of July 31, 2021)

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STOCK RATING CATEGORY	COVERAGE UNIVERSE		INVESTMENT BANKING CLIENTS (IBC)			OTHER MATERIAL INVESTMENT SERVICES CLIENTS (MISC)	
	COUNT	% OF TOTAL	COUNT	% OF TOTAL IBC	% OF RATING CATEGORY	COUNT	% OF TOTAL OTHER MISC
Overweight/Buy	1511	43%	421	48%	28%	676	44%
Equal-weight/Hold	1466	42%	372	42%	25%	654	43%
Not-Rated/Hold	1	0%	0	0%	0%	0	0%
Underweight/Sell	518	15%	84	10%	16%	199	13%
TOTAL	3,496		877			1529	

Data include common stock and ADRs currently assigned ratings. Investment Banking Clients are companies from whom Morgan Stanley received investment banking compensation in the last 12 months. Due to rounding off of decimals, the percentages provided in the "% of total" column may not add up to exactly 100 percent.

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Attractive (A): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be attractive vs. the relevant broad market benchmark, as indicated below.

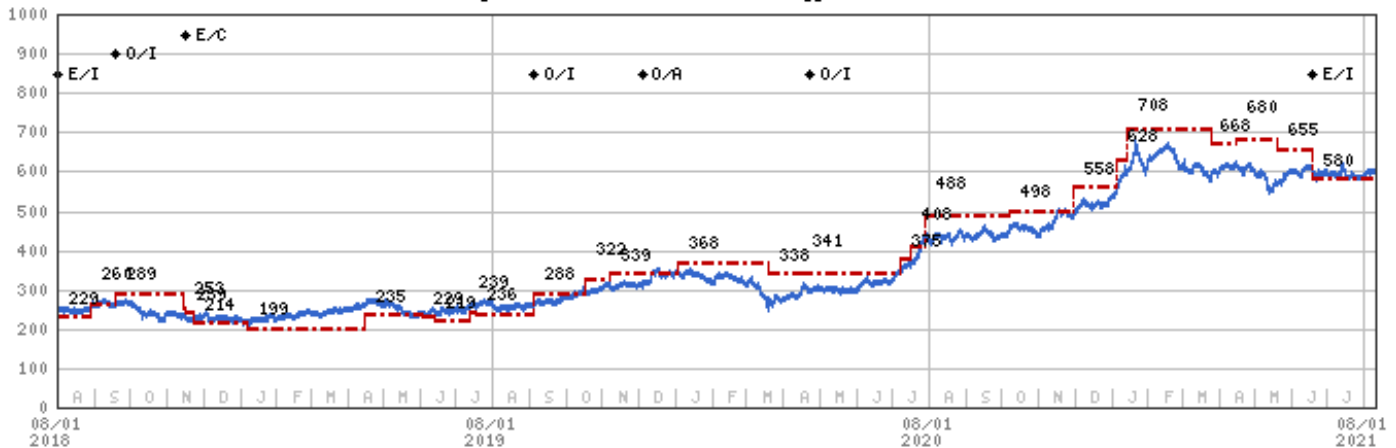
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Stock Price, Price Target and Rating History (See Rating Definitions)

TSMC (2330.TW) - As of 8/9/21 in TWD
Industry : Greater China Technology Semiconductors



Stock Rating History: 8/1/16 : O/I; 11/26/17 : E/I; 9/19/18 : O/I; 11/16/18 : E/C; 9/5/19 : O/I; 12/4/19 : O/A; 4/23/20 : O/I; 6/18/21 : E/I
 Price Target History: 7/14/16 : 178; 10/6/16 : 205; 10/13/16 : 208; 6/29/17 : 250; 11/26/17 : 239; 1/18/18 : 244; 5/2/18 : 239; 7/16/18 : 229; 8/29/18 : 260; 9/19/18 : 289; 11/14/18 : 253; 11/16/18 : 239; 11/23/18 : 214; 1/7/19 : 199; 4/15/19 : 235; 6/3/19 : 229; 6/14/19 : 219; 7/12/19 : 239; 7/18/19 : 236; 9/5/19 : 288; 10/17/19 : 322; 11/8/19 : 339; 1/3/20 : 368; 3/20/20 : 338; 4/16/20 : 341; 7/8/20 : 375; 7/16/20 : 408; 7/29/20 : 488; 10/8/20 : 498; 11/30/20 : 558; 1/5/21 : 628; 1/14/21 : 708; 3/25/21 : 668; 4/15/21 : 680; 5/20/21 : 655; 6/18/21 : 580

Source: Morgan Stanley Research Date Format : MM/DD/YY Price Target -- No Price Target Assigned (NA)
 Stock Price (Not Covered by Current Analyst) — Stock Price (Covered by Current Analyst) —
 Stock and Industry Ratings (abbreviations below) appear as ♦ Stock Rating/Industry View
 Stock Ratings: Overweight (O) Equal-weight (E) Underweight (U) Not-Rated (NR) No Rating Available (NA)
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Charlie Chan		
ACMResearch Inc (ACMR.O)	O (01/22/2020)	US\$91.68
Advanced Micro-Fabrication Equipment Inc (688012.SS)	U (03/20/2020)	Rmb180.55
Achip Technologies Ltd (3661.TW)	O (05/14/2021)	NT\$574.00
ASE Technology Holding Co. Ltd. (3711.TW)	O (10/26/2020)	NT\$126.50
ASM Pacific (0522.HK)	O (01/12/2021)	HK\$102.10
Chipbond Technology Corp (6147.TWO)	E (05/20/2021)	NT\$77.60
Chunghwa Precision Test Tech (6510.TWO)	E (02/23/2021)	NT\$633.00
Global Unichip Corp (3443.TW)	U (02/12/2020)	NT\$377.00
GlobalWafers Co Ltd (6488.TWO)	O (12/02/2020)	NT\$829.00
Jiangsu Changjiang Electronics Tech (600584.SS)	E (10/26/2020)	Rmb37.04
King Yuan Electronics Co Ltd (2449.TW)	O (06/04/2021)	NT\$47.85
Maxscend Microelectronics Co Ltd (300782.SZ)	U (01/11/2021)	Rmb413.75
MediaTek (2454.TW)	O (01/04/2021)	NT\$922.00
Nanya Technology Corp. (2408.TW)	O (12/03/2020)	NT\$70.90
Phison Electronics Corp (8299.TWO)	E (05/20/2021)	NT\$470.00
Silergy Corp. (6415.TW)	U (05/20/2021)	NT\$4,000.00
SMC (0981.HK)	E (08/10/2021)	HK\$26.05
StarPower Semiconductor Ltd (603290.SS)	E (04/20/2021)	Rmb359.70
TSMC (2330.TW)	E (06/18/2021)	NT\$591.00
UMC (2303.TW)	O (09/14/2020)	NT\$59.80
Universal Scientific Ind. (Shanghai) (601231.SS)	O (08/04/2015)	Rmb14.45
Vanguard International Semiconductor (5347.TWO)	U (02/26/2021)	NT\$146.50
Will Semiconductor Co Ltd Shanghai (603501.SS)	O (06/17/2020)	Rmb278.00
WIN Semiconductors Corp (3105.TWO)	U (02/04/2021)	NT\$337.00
Daisy Dai, CFA		
Shanghai Fudan Microelectronics (1385.HK)	E (07/19/2021)	HK\$26.45
Daniel Yen, CFA		
ASMedia Technology Inc (5269.TW)	O (05/14/2021)	NT\$1,895.00
Aspeed Technology (5274.TWO)	O (04/29/2020)	NT\$2,070.00
Bestechnic Shanghai Co Ltd (688608.SS)	O (04/23/2021)	Rmb310.04
Chipsea Technologies Shenzhen Corp (688595.SS)	U (07/19/2021)	Rmb109.68
Egis Technology Inc (6462.TWO)	U (04/23/2020)	NT\$136.00
Espressif Systems (688018.SS)	U (07/19/2021)	Rmb238.60
GigaDevice Semiconductor Beijing Inc (603986.SS)	O (04/24/2019)	Rmb182.89
Macronix International Co Ltd (2337.TW)	O (11/27/2020)	NT\$42.70
Montage Technology Co Ltd (688008.SS)	E (05/05/2021)	Rmb65.39
Novatek (3034.TW)	U (05/20/2021)	NT\$531.00
Nuvoton Technology Corporation (4919.TW)	O (07/19/2021)	NT\$135.00
Parade Technologies Ltd (4966.TWO)	O (03/03/2019)	NT\$1,665.00
Realtek Semiconductor (2379.TW)	O (08/03/2018)	NT\$582.00
Shenzhen Goodix Technology Co Ltd (603160.SS)	U (06/16/2020)	Rmb116.08
Sino Wealth Electronic (300327.SZ)	O (07/19/2021)	Rmb62.18
Winbond Electronics Corp (2344.TW)	O (12/07/2020)	NT\$33.65
WPG Holdings (3702.TW)	U (04/09/2021)	NT\$55.10
Ray Wu, CFA		
Advanced Wireless Semiconductor Co (8086.TWO)	O (01/11/2021)	NT\$154.00
China Resources Microelectronics Limited (688396.SS)	O (04/20/2021)	Rmb83.98
Hua Hong Semiconductor Ltd (1347.HK)	E (05/20/2021)	HK\$49.95
Powerchip Semiconductor Manufacturing Co (6770.TWO)	U (07/12/2021)	NT\$68.40
RichWave Technology Corp. (4968.TW)	E (07/15/2021)	NT\$360.00
Silicon Motion (SIMO.O)	U (05/20/2021)	US\$79.98
Wafer Works Corp (6182.TWO)	O (04/20/2021)	NT\$62.70

Stock Ratings are subject to change. Please see latest research for each company.

* Historical prices are not split adjusted.