

# Hua Hong Semiconductor Ltd

Bloomberg: 1347 HK Equity | Reuters: 1347.HK

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DBS Group Research . Equity

13 May 2022

## BUY

Last Traded Price (12 May 2022): HK\$24.60 (HSI : 19,380)

Price Target 12-mth: HK\$58.90 (139% upside)

### Analyst

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### What's New

- Revenue surged 95% to US\$6bn, beating management's guidance by 6%, attributable to strong shipment growth
- Net profit rose 211% y-o-y to US\$1,030m, ahead of the market consensus by 25% due to the wafer ASP hike
- New foundry capacity is expected to start production in 2Q to 3Q under smooth expansion and strong demand
- Maintain BUY due to smooth capacity expansion and increasing ROE in FY22-24

## Capacity expansion on track

### Investment Thesis

Growing mature node applications in automotive industry. Revenue from automotive/industrial applications is expected to grow at a CAGR of 68.7% over FY20-23, with a revenue share increase from 13.3% to 23.3%.

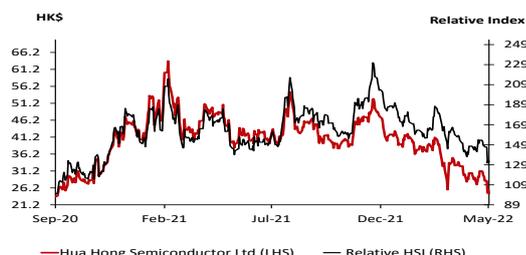
An expansion to 95K WPM is expected to be achieved early, by 3Q22, due to 1) abundant foundry equipment supply, 2) persistently strong demand from end markets, 3) strong execution ability, and 4) attractive tax incentives. We expect FY22/23F capacity to be 7.7%/2.0% higher than that of the market, leading to an 8.2%/8.3% higher revenue forecast.

Potential A-share listing under the supportive financial policy for the semiconductor industry after SMIC's debut on Shanghai's STAR Market. Capital replenishment to support future capacity growth can be achieved.

### Valuation:

Our TP of HK\$58.9 is based on a 2.7x FY22F PB, pegged to its upcycle valuation. The re-rating is supported by a stronger growth profile in FY22-24F driven by a smooth capacity expansion and ramp-up in the utilisation rate and yield.

### Price Relative



### Forecasts and Valuation

FY Dec (US\$m)	2021A	2022F	2023F	2024F
Turnover	1,631	2,357	2,753	2,974
EBITDA	568	792	956	1,070
Pre-tax Profit	233	390	543	613
Net Profit	212	353	464	523
Net Pft (Pre Ex) (core profit)	212	353	464	523
Net Profit Gth (Pre-ex) (%)	113.3	66.6	31.3	12.7
EPS (US\$)	0.16	0.27	0.35	0.40
EPS (HK\$)	1.26	2.12	2.78	3.12
EPS Gth (%)	108.9	68.3	30.9	12.4
Diluted EPS (HK\$)	1.26	2.12	2.78	3.12
DPS (HK\$)	0.00	0.00	0.75	0.00
BV Per Share (HK\$)	17.03	19.38	25.42	24.00
PE (X)	19.5	11.6	8.9	7.9
CorePE (X)	19.5	11.6	8.9	7.9
P/Cash Flow (X)	8.2	5.5	5.0	4.9
P/Free CF (X)	nm	nm	6.6	nm
EV/EBITDA (X)	8.7	6.2	4.5	4.7
Net Div Yield (%)	0.0	0.0	3.1	0.0
P/Book Value (X)	1.4	1.3	1.0	1.0
Net Debt/Equity (X)	CASH	0.0	CASH	0.0
ROAE (%)	7.9	11.7	13.6	13.8
Earnings Rev (%):		Nil	Nil	Nil
Consensus EPS (US\$)		0.23	0.24	0.28
Other Broker Recs:		B:25	S:1	H:5

### Where we differ:

Our expected capacity in FY22F is 7.7% higher than the market, leading to 7.3% and 4.1% higher revenue in FY23/24F than the market, owing to the faster-than-expected expansion pace.

### Key Risks to Our View:

Lockdown of fab-intense area due to spread of new COVID-19 variants may delay the capacity expansion or chip production.

### At A Glance

Issued Capital (m shrs)	1,301
Mkt Cap (HKm/US\$m)	32,005 / 4,077
Major Shareholders (%)	
Shanghai Huahong (Group) Co., Ltd.	26.9
Shanghai Alliance Investment Ltd.	14.5
China Integrated Circuit Industry Investment Fund Co., Ltd.	13.7
Free Float (%)	44.8
3m Avg. Daily Val. (US\$m)	29.87
GICS Industry: Information Technology / Semiconductors & Semiconductor	



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## Hua Hong Semiconductor Ltd

### WHAT'S NEW

#### 1Q earnings beat; capacity expansion likely to be achieved early

##### 1Q22 result highlights

##### 1Q22 revenue ahead of management's guidance.

Revenue surged 95.1% to US\$5.95bn, beating the management's guidance by 6.2%, mainly attributable to robust shipment growth of 12-inch wafers driven by the prolonged chip shortage in mature process nodes and margin improvement.

**Gross margin expanded to 26.9%, up 3.5ppt y-o-y**, mainly due to the ASP hike in both 8 and 12-inch wafers which was partially offset by the increase in depreciation expenses. The ASP hike was driven by unfulfilled demand for specialty node chips and continuous migration to the 55nm platform foundry. The gross margin of the 8-inch business increased 11.3ppt y-o-y to 38.6%, while that of the 12-inch business climbed 4.7ppt y-o-y to 12.0%.

Gross margin was down 5.6ppt q-o-q, mainly due to a one-off audit adjustment on government grants and increased bonuses and depreciation cost.

**Net profit rose 211.4% y-o-y to US\$102.9m**, ahead of the market consensus by 25.2% as a result of both revenue growth and margin expansion. EPS was US\$0.079.

Management is guiding 2Q22 revenue growth of 3.4%, 7.2% above market expectations.

##### Our View

We expected the regional lockdowns in China, especially in Shanghai, to have a very mild impact on the foundry process in 2Q22, as the company has adopted closed system manufacturing in their fabs to ensure a full utilisation rate. The potential logistics constraints are tackled by the local government granting road passes during the lockdowns.

We expected a gross margin recovery to the level of 4Q21 in 2Q in the absence of the one-off audit adjustment.

The faster-than-guidance capacity expansion progress we expected is likely to be achieved in the context of the strong demand in mature process node wafers. The management indicates that the Wuxi Fab phase 2 expansion was already taking place and predicts the additional capacity will start production in 2Q and 3Q. We expect the import and installment of the essential equipment for this to progress smoothly.

Regarding the US' potential ban on the Chinese company for importing chipmaking equipment, management emphasised that it will have no impact on Hua Hong SEMI, as it holds a validated end-user (VEU) certification that was granted by the US Department of Commerce.

We maintain our FY22/23/24F earnings growth forecast, as the faster-than-guidance capacity expansion is within our expectations.

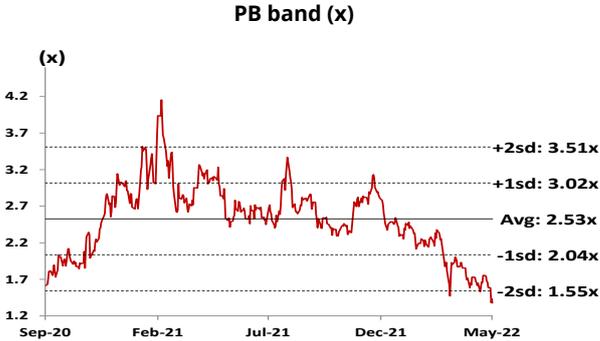
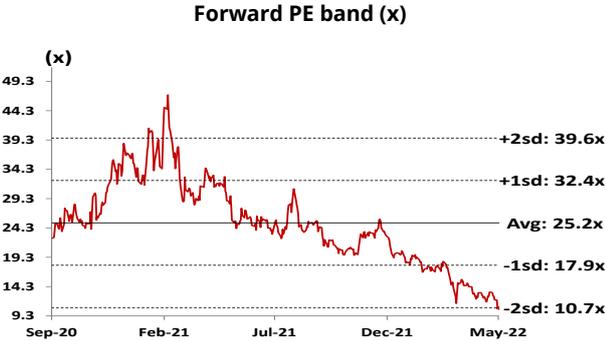
We maintain BUY with a TP of HK\$58.9, which is based on a 2.70x FY22F PB, c.1SD above its mean, pegged to its upcycle valuation. The re-rating is supported by a stronger growth profile in FY22-24F driven by a smooth capacity expansion and ramp-up in the utilisation rate and yield.

##### Company Background

Founded in 1997 and listed in 2014, Hua Hong Semiconductor is China's second-largest foundry and the sixth-largest foundry globally. The company focuses on manufacturing semiconductors on 200mm (8-inch) wafers, and had a 9% global market share in 2019. It focuses on specialty applications and has the largest power discrete capacity in China. The state-owned Assets Supervision and Administration Commission of Shanghai Municipal Government is Hua Hong Semiconductor's largest shareholder, with a 27% stake.

**Hua Hong Semiconductor Ltd**

**Historical PE and PB band**



Source: Thomson Reuters, DBS HK

## Hua Hong Semiconductor Ltd

### Key Assumptions

FY Dec	2020A	2021A	2022F	2023F	2024F
Hua Hong 8" wafer Shipment ('000 wafer)	2,042.0	2,326.0	2,329.3	2,221.4	2,242.8
Gross Margin (%)	26.3%	34.0%	39.8%	43.9%	45.2%
Hua Hong Wuxi shipment ('000 8" equivalent wafer)	149.0	1,002.0	2,019.1	2,506.3	2,736.0
Gross Margin (%)	6.5%	12.4%	15.3%	20.9%	22.1%

Source: Company, DBS HK

### Segmental Breakdown (US\$ m)

FY Dec	2020A	2021A	2022F	2023F	2024F
<b>Revenues (US\$ m)</b>					
Hua Hong 8"	897	1,150	1,279	1,313	1,360
Hua Hong Wuxi	64	481	1,078	1,440	1,614
<b>Total</b>	<b>961</b>	<b>1,631</b>	<b>2,357</b>	<b>2,753</b>	<b>2,974</b>

Source: Company, DBS HK

## Hua Hong Semiconductor Ltd

### Income Statement (US\$ m)

FY Dec	2020A	2021A	2022F	2023F	2024F
Revenue	961	1,631	2,357	2,753	2,974
Cost of Goods Sold	(726)	(1,196)	(1,682)	(1,875)	(2,002)
<b>Gross Profit</b>	<b>235</b>	<b>435</b>	<b>674</b>	<b>877</b>	<b>972</b>
Other Opng (Exp)/Inc	(269)	(256)	(338)	(395)	(425)
<b>Operating Profit</b>	<b>(35)</b>	<b>179</b>	<b>337</b>	<b>483</b>	<b>547</b>
Other Non Opg (Exp)/Inc	47	47	49	48	48
Associates & JV Inc	26	7	8	9	9
Net Interest (Exp)/Inc	8	0	(3)	4	9
Dividend Income	0	0	0	0	0
Exceptional Gain/(Loss)	0	0	0	0	0
<b>Pre-tax Profit</b>	<b>46</b>	<b>233</b>	<b>390</b>	<b>543</b>	<b>613</b>
Tax	(13)	(51)	(85)	(119)	(134)
Minority Interest	66	30	48	39	44
Preference Dividend	0	0	0	0	0
<b>Net Profit</b>	<b>99</b>	<b>212</b>	<b>353</b>	<b>464</b>	<b>523</b>
Net Profit before Except.	99	212	353	464	523
EBITDA	245	568	792	956	1,070
<b>Growth</b>					
Revenue Gth (%)	3.1	69.6	44.5	16.8	8.0
EBITDA Gth (%)	(16.7)	132.3	39.4	20.6	11.9
Opg Profit Gth (%)	(133.4)	(617.3)	88.4	43.5	13.4
Net Profit Gth (%)	(38.7)	113.3	66.6	31.3	12.7
<b>Margins &amp; Ratio</b>					
Gross Margins (%)	24.4	26.7	28.6	31.9	32.7
Opg Profit Margin (%)	(3.6)	11.0	14.3	17.5	18.4
Net Profit Margin (%)	10.3	13.0	15.0	16.9	17.6
ROAE (%)	4.2	7.9	11.7	13.6	13.8
ROA (%)	2.4	3.9	5.2	6.1	6.5
ROCE (%)	(0.7)	3.0	4.6	6.1	6.6
Div Payout Ratio (%)	0.0	0.0	0.0	27.0	0.0
Net Interest Cover (x)	NM	NM	134.1	NM	NM

Source: Company, DBS HK

## Hua Hong Semiconductor Ltd

### Balance Sheet (US\$ m)

FY Dec	2020A	2021A	2022F	2023F	2024F
Net Fixed Assets	2,770	3,377	3,840	3,589	4,657
Invts in Associates & JVs	105	122	133	146	161
Other LT Assets	287	312	340	376	376
Cash & ST Invts	923	1,610	2,007	2,530	1,737
Inventory	226	434	591	690	746
Debtors	257	232	317	369	398
Other Current Assets	0	117	114	114	114
<b>Total Assets</b>	<b>4,569</b>	<b>6,203</b>	<b>7,342</b>	<b>7,814</b>	<b>8,189</b>
ST Debt	48	195	254	248	242
Creditors	530	762	1,084	1,207	1,289
Other Current Liab	87	183	200	266	230
LT Debt	518	1,390	1,783	1,740	1,696
Other LT Liabilities	31	37	35	32	36
Shareholder's Equity	2,528	2,821	3,220	3,593	4,013
Minority Interests	826	815	766	727	684
<b>Total Cap. &amp; Liab.</b>	<b>4,569</b>	<b>6,203</b>	<b>7,342</b>	<b>7,814</b>	<b>8,189</b>
Non-Cash Wkg. Capital	(134)	(163)	(262)	(300)	(260)
Net Cash/(Debt)	357	25	(30)	542	(201)
Debtors Turn (avg days)	103.3	54.6	42.5	45.4	47.0
Creditors Turn (avg days)	326.4	274.1	262.6	286.8	296.4
Inventory Turn (avg days)	129.3	140.0	145.8	160.4	170.5
Asset Turnover (x)	0.2	0.3	0.3	0.4	0.4
Current Ratio (x)	2.1	2.1	2.0	2.2	1.7
Quick Ratio (x)	1.8	1.6	1.5	1.7	1.2
Net Debt/Equity (X)	CASH	CASH	0.0	CASH	0.0
Net Debt/Equity ex MI (X)	CASH	CASH	0.0	CASH	0.1
Capex to Debt (%)	211.7	59.3	43.3	9.7	78.6
Z-Score (X)	NA	NA	NA	NA	NA

Source: Company, DBS HK

### Cash Flow Statement (US\$ m)

FY Dec	2020A	2021A	2022F	2023F	2024F
Pre-Tax Profit	46	233	390	543	613
Dep. & Amort.	206	336	399	417	465
Tax Paid	(13)	(51)	(85)	(119)	(134)
Assoc. & JV Inc/(loss)	(26)	(7)	(8)	(9)	(9)
(Pft)/ Loss on disposal of FAs	0	0	0	0	0
Chg in Wkg.Cap.	163	29	99	39	(40)
Other Operating CF	(59)	(35)	(46)	(52)	(56)
<b>Net Operating CF</b>	<b>317</b>	<b>506</b>	<b>749</b>	<b>820</b>	<b>838</b>
Capital Exp.(net)	(1,199)	(941)	(883)	(193)	(1,524)
Other Invts.(net)	497	(28)	0	0	0
Invts in Assoc. & JV	(6)	(10)	(3)	(5)	(6)
Div from Assoc & JV	0	0	0	0	0
Other Investing CF	50	43	41	39	39
<b>Net Investing CF</b>	<b>(658)</b>	<b>(936)</b>	<b>(845)</b>	<b>(158)</b>	<b>(1,491)</b>
Div Paid	0	0	0	(125)	(141)
Chg in Gross Debt	540	1,019	451	(49)	(50)
Capital Issues	9	3	3	3	3
Other Financing CF	237	95	38	33	47
<b>Net Financing CF</b>	<b>787</b>	<b>1,118</b>	<b>492</b>	<b>(138)</b>	<b>(140)</b>
Currency Adjustments	0	0	0	0	0
Chg in Cash	447	687	397	523	(793)
Opg CFPS (US\$)	0.12	0.36	0.50	0.60	0.67
Free CFPS (US\$)	(0.68)	(0.33)	(0.10)	0.48	(0.52)

Source: Company, DBS HK

**Hua Hong Semiconductor Ltd**

**Target Price & Ratings History**



S.No.	Date	Closing Price	12-mth Target Price	Rating
1:	3-Jan-22	HK\$43.00	HK\$58.90	Buy
2:	19-Jan-22	HK\$42.20	HK\$58.90	Buy
3:	31-Jan-22	HK\$36.15	HK\$58.90	Buy

Source: DBS HK

Analyst: Jim Au

Tsz Wang Tam

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**BUY** (>15% total return over the next 12 months for small caps, >10% for large caps)

**HOLD** (-10% to +15% total return over the next 12 months for small caps, -10% to +10% for large caps)

**FULLY VALUED** (negative total return, i.e., > -10% over the next 12 months)

**SELL** (negative total return of > -20% over the next 3 months, with identifiable share price catalysts within this time frame)

\*Share price appreciation + dividends

Completed Date: 13 May 2022 15:20:45 (HKT)

Dissemination Date: 13 May 2022 15:56:04 (HKT)

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