

Novatek Microelectronics (3034 TT)

Upgrade to Hold: Cyclical trough passed, but demand and China competitive pressures remain

- ◆ Better 4Q22 margins and 1Q23 guidance imply cyclical trough given earlier driver IC inventory adjustment
- ◆ Long-term risks over China competition remain an overhang
- ◆ Upgrade to Hold with higher TP of TWD330 (from TWD185)

4Q22 GM%/OM% better than expected from product mix and lower expenses

Novatek reported 4Q22 results with revenues beating HSBC/cons est by +17%/+10% while GM%/OM% of 40.5%/23.2% also beat HSBC estimate of 39.7%/20.2% and consensus at 39.5%/20.3%. Management attributed beat due to better product mix (we believed OLED DDIC sales contribution improved to 13% in 4Q22 sales from 10% in 3Q22), and lower R&D expenses.

Better 1Q23 guidance from earlier driver IC adjustment

For 1Q23, management guided for revenue in a range of TWD22.2-23.2bn, implying +1% QoQ growth at the midpoint, better than HSBC/cons estimates of -2%/-2% QoQ decline and one the few companies in our semi coverage to show QoQ improvement. Management still expects to see a moderate QoQ decline in GM% with guidance of 38.5% at its midpoint, which is broadly in line with HSBC/cons est of 39%. Nevertheless, Novatek's 1Q23 guidance suggests the cyclical bottom has passed for driver IC, even though the magnitude of recovery is uncertain. Novatek's 4Q22 inventory days of 98 also imply QoQ improvement vs 3Q22 inventory days of 111, while most semi supply chain companies continue to see QoQ increases in 4Q22 inventory days. We believe the driver IC supply chain has seen an earlier cyclical trough vs other semiconductor supply chains given a much earlier adjustment in driver IC inventory starting in 1Q22, vs 2H22 for the broader semiconductor supply chain.

Demand and long-term risks remain over rising China competition

While we are more constructive about the short-term outlook given the earlier cyclical trough, we continue to see demand recovery uncertainty and long-term risks from rising China competition. Hence, we see potential market share loss and ASP pressure from China competitors like Chipone (not listed), which already had more than 10% market share in smartphone and 5% in large size panel driver ICs by the end of 4Q21. With overall 8" foundry capacity no longer tight, we continue to expect smaller China driver IC competitors to continue to gain share.

Upgrade to Hold, from Reduce, raise TP to TWD330 (from TWD185)

We raise our FY23 EPS estimate by c5% to TWD27.25 to reflect our better 4Q22/1Q23 outlook. We also increase our target price to TWD330 from TWD185, which is based on higher target PE of 12x applied to our EPS for 2023e given the cyclical trough has passed in terms of driver IC inventory correction relative to the rest of the semi supply chain. However, we retain our view that Novatek should continue to face long-term challenges from demand weakness and intensifying competition from Chinese competitors.

Equities Semiconductors & Equipment

Taiwan


UPGRADE TO HOLD

TARGET PRICE (TWD)

330.00

PREVIOUS TARGET (TWD)

185.00

SHARE PRICE (TWD)

364.00

(as of 07 Feb 2023)

UPSIDE/DOWNSIDE

-9.3%

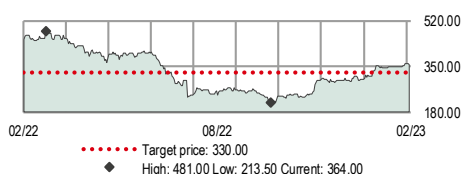
MARKET DATA

Market cap (TWDm)	221,498	Free float	100%
Market cap (USDm)	7,364	BBG	3034 TT
3m ADTV (USDm)	73	RIC	3034.TW

FINANCIALS AND RATIOS (TWD)

Year to	12/2021a	12/2022e	12/2023e	12/2024e
HSBC EPS	63.87	45.96	27.25	29.04
HSBC EPS (prev)	63.87	44.38	26.01	29.39
Change (%)	0.0	3.6	4.7	-1.2
Consensus EPS	63.50	45.04	26.86	29.53
PE (x)	5.7	7.9	13.4	12.5
Dividend yield (%)	4.3	14.1	10.1	6.0
EV/EBITDA (x)	3.2	5.1	7.5	6.3
ROE (%)	70.4	38.8	20.2	17.8

52-WEEK PRICE (TWD)



Source: Refinitiv IBES, HSBC estimates

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Financials & valuation: Novatek Microelectronics

Hold

Financial statements

Year to	12/2021a	12/2022e	12/2023e	12/2024e
Profit & loss summary (TWDm)				
Revenue	135,365	109,956	95,107	97,940
EBITDA	48,873	32,926	20,526	21,664
Depreciation & amortisation	-1,101	-198	-89	-159
Operating profit/EBIT	47,773	32,728	20,437	21,504
Net interest	119	317	239	308
PBT	48,115	34,510	20,471	21,813
HSBC PBT	48,115	34,510	20,471	21,813
Taxation	-9,249	-6,542	-3,889	-4,144
Net profit	38,865	27,968	16,581	17,668
HSBC net profit	38,865	27,968	16,581	17,668
Cash flow summary (TWDm)				
Cash flow from operations	41,721	23,688	15,958	17,303
Capex	-845	-1,100	-951	-979
Cash flow from investment	-8,414	1,528	-1,358	-1,220
Dividends	-9,493	-31,338	-22,375	-13,265
Change in net debt	-37,254	11,623	-15,452	-16,587
FCF equity	40,876	22,588	15,007	16,323
Balance sheet summary (TWDm)				
Intangible fixed assets	2,485	2,485	2,485	2,485
Tangible fixed assets	6,906	8,609	9,471	10,291
Current assets	100,115	78,748	97,549	115,778
Cash & others	60,129	48,506	63,958	80,544
Total assets	120,593	98,302	118,373	137,662
Operating liabilities	50,142	30,419	33,909	35,530
Gross debt	0	0	0	0
Net debt	-60,129	-48,506	-63,958	-80,544
Shareholders' funds	70,451	73,812	90,393	108,062
Invested capital	-765	10,917	11,639	12,480

Ratio, growth and per share analysis

Year to	12/2021a	12/2022e	12/2023e	12/2024e
y-o-y % change				
Revenue	69.3	-18.8	-13.5	3.0
EBITDA	209.8	-32.6	-37.7	5.5
Operating profit	223.3	-31.5	-37.6	5.2
PBT	231.5	-28.3	-40.7	6.6
HSBC EPS	228.9	-28.0	-40.7	6.6
Ratios (%)				
Revenue/IC (x)	22.1	21.7	8.4	8.1
ROIC	631.7	522.6	146.8	144.4
ROE	70.4	38.8	20.2	17.8
ROA	43.5	25.6	15.3	13.8
EBITDA margin	36.1	29.9	21.6	22.1
Operating profit margin	35.3	29.8	21.5	22.0
EBITDA/net interest (x)				
Net debt/equity	-85.3	-65.7	-70.8	-74.5
Net debt/EBITDA (x)	-1.2	-1.5	-3.1	-3.7
CF from operations/net debt				
Per share data (TWD)				
EPS Rep (diluted)	63.87	45.96	27.25	29.04
HSBC EPS (diluted)	63.87	45.96	27.25	29.04
DPS	15.60	51.50	36.77	21.80
Book value	115.78	121.30	148.55	177.58

Note: 2022 numbers are preliminary unaudited numbers

Valuation data

Year to	12/2021a	12/2022e	12/2023e	12/2024e
EV/sales	1.2	1.5	1.6	1.4
EV/EBITDA	3.2	5.1	7.5	6.3
EV/IC		15.5	13.2	11.0
PE*	5.7	7.9	13.4	12.5
PB	3.1	3.0	2.5	2.0
FCF yield (%)	18.5	10.2	6.8	7.4
Dividend yield (%)	4.3	14.1	10.1	6.0

* Based on HSBC EPS (diluted)

ESG metrics

Environmental Indicators	12/2021a	Governance Indicators	12/2022a
GHG emission intensity*	3.3	No. of board members	8
Energy intensity*	6.3	Average board tenure (years)	n/a
CO ₂ reduction policy	Yes	Female board members (%)	12.5
Social Indicators		Board members independence (%)	37.5
Employee costs as % of revenues	6		
Employee turnover (%)	5.8		
Diversity policy	Yes		

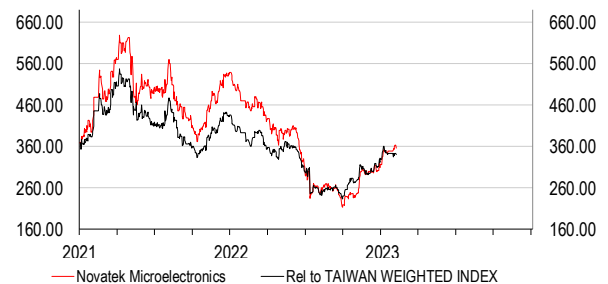
Source: Company data, HSBC

* GHG intensity and energy intensity are measured in kg and kWh respectively against revenue in USD '000s

Issuer information

Share price (TWD)	364.00	Free float	100%
Target price (TWD)	330.00	Sector	Semiconductors
RIC (Equity)	3034.TW	Country/Region	Taiwan
Bloomberg (Equity)	3034 TT	Analyst	Frank Lee
Market cap (USDm)	7,364	Contact	+852 2996 6916

Price relative



Source: HSBC

Note: Priced at close of 07 Feb 2023

4Q22 results

Exhibit 1: 4Q22 results

(TWDm)	4Q22a	4Q22e	Difference	Consensus	Difference	3Q22a	q-o-q	4Q21a	y-o-y
Sales	22,420	19,238	16.5%	20,452	9.6%	19,564	14.6%	36,542	-38.6%
Gross profits	9,090	7,643	18.9%	8,082	12.5%	8,344	8.9%	18,801	-51.6%
- Gross margin	40.5%	39.7%	82bps	39.5%	103bps	42.7%	-211bps	51.4%	-1090bps
Operating profits	5,209	3,892	33.8%	4,148	25.6%	4,255	22.4%	13,449	-61.3%
- OP margin	23.2%	20.2%	300bps	20.3%	295bps	21.7%	149bps	36.8%	-1357bps
Net profits	4,043	3,080	31.3%	3,453	17.1%	4,305	-6.1%	10,933	-63.0%
EPS (TWD)	6.64	5.06	31.2%	5.69	16.8%	7.07	-6.1%	17.97	-63.0%

Source: Company data, Bloomberg consensus, HSBC estimates

Novatek 4Q22 analyst call key takeaways

4Q22 results

- ◆ 4Q22 sales were up by 14.6% sequentially to TWD22.42bn. The improvement was due to better than expected performance from large panel related products and OLED related products.
- ◆ 4Q22 GM of 40.5% declined by 211bps mainly due to ASP erosion and higher inventory costs.
- ◆ 4Q22 operating margin improved by 149bps to 23.2% mainly due to higher revenue and lower opex.
- ◆ By product SMDDIC/LDDIC/SOC represented 39%/26%/35% of 4Q22 revenue.

1Q23 outlook

- ◆ 1Q23 revenue to be in the range of TWD22.2bn-23.2bn based on FX assumption of USD1-TWD30, implying a sequential improvement of 1% at mid-point.
- ◆ In terms of revenue by segment, management expects small/mid DDIC revenue to be down sequentially due to weakness in demand; LDDIC expected to improve sequentially due to rush orders for high-end Notebooks and monitor; and SoC expected to improve sequentially.
- ◆ Gross profit margin to be in the range of 37.5-39.5%.
- ◆ Operating margin to be in the range of 20-23%.
- ◆ Management expects inventory in absolute amounts to come down sequentially.
- ◆ Management expects OLED related products to see growth in 2023e, along with AR/VR related products, mid-to-high end TV SoC as well as ASIC.

Other highlights

- ◆ 4Q22 days of inventory was 98 compared to 111 days in 3Q22. Management expects inventory to decline in 1Q23 as well and start returning to normal level soon after.
- ◆ Management set target to use 50% renewable energy by 2030 and 100% renewable energy by 2050.

Estimate changes

We raise our FY23 EPS estimate by c5% to TWD27.25 to reflect our better 4Q22/ 1Q23 outlook, driven by better than expected performance from large panel related products and OLED-related products.

Exhibit 2: Estimate changes

(TWDm)	New			Old			Change		
	2022e	2023e	2024e	2022e	2023e	2024e	2022e	2023e	2024e
Sales	109,956	95,107	97,940	106,774	84,188	92,816	3%	13%	6%
- y-o-y	-19%	-14%	3%	-21%	-21%	10%			
Gross profits	50,941	36,225	37,762	49,493	32,362	36,435	3%	12%	4%
- GM	46.3%	38.1%	38.6%	46.4%	38.4%	39.3%			
Operating profits	32,728	20,437	21,504	31,411	19,313	22,049	4%	6%	-2%
- OPM	29.8%	21.5%	22.0%	29.4%	22.9%	23.8%			
Net income	27,968	16,581	17,668	27,005	15,830	17,881	4%	5%	-1%
EPS (TWD)	45.96	27.25	29.04	44.38	26.01	29.39	4%	5%	-1%
- y-o-y	-28%	-41%	7%	-31%	-41%	13%			

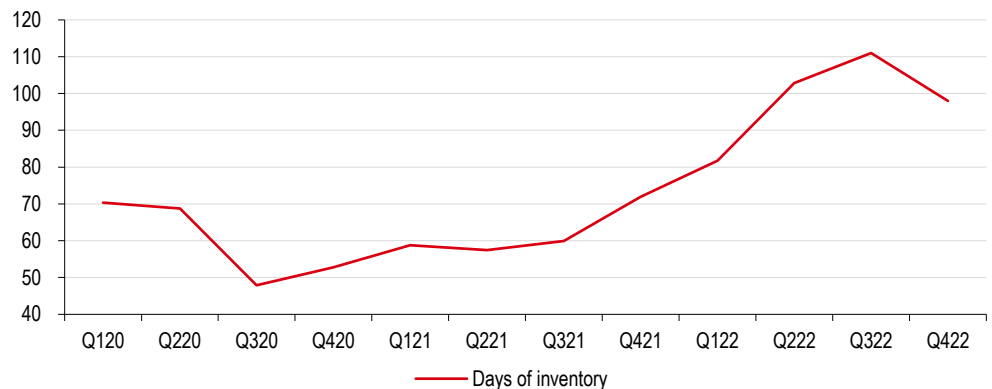
Source: HSBC estimates

Exhibit 3: HSBC estimates vs consensus

(TWDm)	HSBC estimates			Consensus			Difference		
	2022e	2023e	2024e	2022e	2023e	2024e	2022e	2023e	2024e
Sales	109,956	95,107	97,940	107,942	91,665	99,981	2%	4%	-2%
- y-o-y	-19%	-14%	3%	-20%	-15%	9%			
Gross profits	50,941	36,225	37,762	49,920	36,366	40,451	2%	0%	-7%
- GM	46.3%	38.1%	38.6%	46.2%	39.7%	40.5%			
Operating profits	32,728	20,437	21,504	31,703	19,482	22,548	3%	5%	-5%
- OPM	29.8%	21.5%	22.0%	29.4%	21.3%	22.6%			
Net income	27,968	16,581	17,668	27,384	16,227	18,351	2%	2%	-4%
EPS (TWD)	45.96	27.25	29.04	45.04	26.86	29.53	2%	1%	-2%
- y-o-y	-28%	-41%	7%	-29%	-40%	10%			

Source: Bloomberg consensus, HSBC estimates

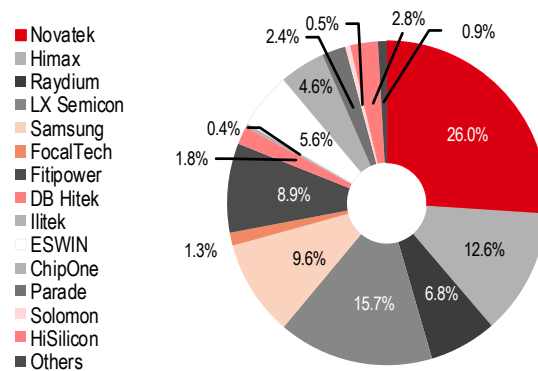
Exhibit 4: Days of inventory trend



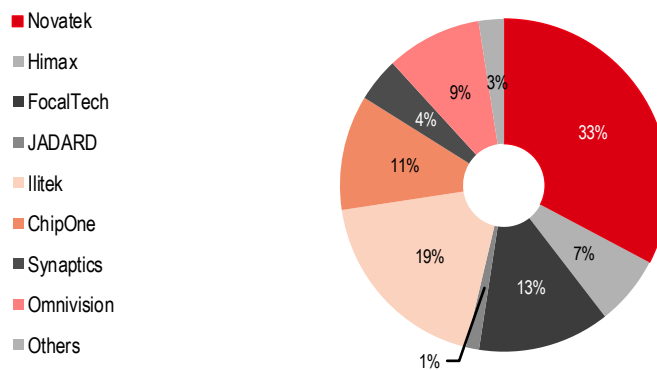
Source: Company data

Exhibit 5: 12-month forward PE band (x)


Source: Bloomberg, HSBC estimates

Exhibit 6: Large-area driver IC market share


Source: HSBC estimates

Exhibit 7: LCD smartphone driver IC market share


Source: HSBC estimates

Exhibit 8: List of DDIC design houses in China

Maker	Large TFT	Small/medium TFT	OLED
Chipone	✓	✓	✓
New Vision	✓	✓	Developing
HiSilicon	✓		Developing
Aplus	✓		Developing
Galaxy Core	✓	✓	
Chipwealth			✓
ESWIN	✓	✓	✓
Shenghe			✓
Solomon	✓	✓	✓
Viewtrix			✓
RDJ	✓		

Source: Company data

Exhibit 9: Quarterly and annual P&L

	Q122	Q222	Q322	Q422e	2022e	Q123e	Q223e	Q323e	Q423e	2023e	2024e
Revenue	36,512	31,461	19,564	22,420	109,956	22,568	23,312	24,619	24,607	95,107	97,940
- q-o-q chg	-0.1%	-13.8%	-37.8%	14.6%		0.7%	3.3%	5.6%	-0.1%		
- y-o-y chg	38.5%	-7.8%	-49.0%	-38.6%	-18.8%	-38.2%	-25.9%	25.8%	9.8%	-13.5%	3.0%
Gross profits	18,524	14,982	8,344	9,090	50,941	8,769	8,916	9,253	9,287	36,225	37,762
- Gross margin	50.7%	47.6%	42.7%	40.5%	46.3%	38.9%	38.2%	37.6%	37.7%	38.1%	38.6%
- q-o-q chg	-1.5%	-19.1%	-44.3%	8.9%		-3.5%	1.7%	3.8%	0.4%		
- y-o-y chg	61.0%	-12.7%	-58.1%	-51.6%	-24.4%	-52.7%	-40.5%	10.9%	2.2%	-28.9%	4.2%
Operating expense	-5,244	-4,998	-4,089	-3,881	-18,212	-3,746	-3,870	-4,087	-4,085	-15,788	-16,258
- % of sales	14.4%	15.9%	20.9%	17.3%	16.6%	16.6%	16.6%	16.6%	16.6%	16.6%	16.6%
Operating profits	13,280	9,985	4,255	5,209	32,728	5,023	5,046	5,166	5,202	20,437	21,504
- Operating margin	36.4%	31.7%	21.7%	23.2%	29.8%	22.3%	21.6%	21.0%	21.1%	21.5%	22.0%
- q-o-q chg	-1.3%	-24.8%	-57.4%	22.4%		-3.6%	0.5%	2.4%	0.7%		
- y-o-y chg	84.2%	-16.7%	-71.9%	-61.3%	-31.5%	-62.2%	-49.5%	21.4%	-0.1%	-37.6%	5.2%
Pre-tax income	13,765	10,496	5,266	4,984	34,510	5,012	5,091	5,214	5,153	20,471	21,813
Tax expense	-2,631	-2,009	-961	-941	-6,542	-952	-967	-991	-979	-3,889	-4,144
- tax rate	-19.1%	-19.1%	-18.2%	-18.9%	-19.0%	-19.0%	-19.0%	-19.0%	-19.0%	0.0%	0.0%
Net income	11,134	8,486	4,305	4,043	27,968	4,060	4,124	4,224	4,174	16,581	17,668
- Net margin	30.5%	27.0%	22.0%	18.0%	25.4%	18.0%	17.7%	17.2%	17.0%	17.4%	18.0%
- q-o-q chg	1.8%	-23.8%	-49.3%	-6.1%		0.4%	1.6%	2.4%	-1.2%		
- y-o-y chg	89.5%	-13.3%	-64.9%	-63.0%	-28.0%	-63.5%	-51.4%	-1.9%	3.3%	-40.7%	6.6%
EPS (TWD)	18.30	13.95	7.07	6.64	45.96	6.67	6.78	6.94	6.86	27.25	29.04
- q-o-q chg	1.8%	-23.8%	-49.3%	-6.1%		0.4%	1.6%	2.4%	-1.2%		
- y-o-y chg	89.5%	-13.3%	-64.9%	-63.0%	-28.0%	-63.5%	-51.4%	-1.9%	3.3%	-40.7%	6.6%

Source: Company data, HSBC estimates

Valuation and risks

	Valuation		Risks
Novatek 3034 TT Hold	Current price:	We upgrade our rating on the stock from Reduce to Hold and raise our target price to TWD330 from TWD185. Our target price is derived from our target PE multiple of 12x (from 7x) for 2023e. 12x PE is the 5-year average PE multiple of Novatek; with Novatek passing the trough we believe a back to average PE multiple is reasonable. We derive our new target price by applying our target PE multiple of 12x to our revised EPS estimate for 2023e of TWD27.25 (from TWD26.01). Our new target price implies 9.3% downside. With DDIC industry adjusting inventory and wafer order earlier than the other IC industries, we now upgrade Novatek to Hold, from Reduce, as we believe it is passing through earlier than the other ICs.	Upside risks: 1) stronger-than-expected TV shipments; 2) stronger-than-expected smartphone and notebook shipments; 3) a significant spec upgrade trend; and 4) further price increases. Downside risks: 1) Worse than expected end demand in 2H23e; 2) Worse than expected ASP erosion for DDIC and SoC; 3) More intense competition from DDIC peers in China.
	TWD364.00		
	Target price:		
	TWD330.00		
	Up/downside:		
	-9.3%		

Priced at 7 Feb 2023.
 Source: Bloomberg, HSBC estimates

Disclosure appendix

Analyst Certification

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Important disclosures

Equities: Stock ratings and basis for financial analysis

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From 23rd March 2015 HSBC has assigned ratings on the following basis:

The target price is based on the analyst's assessment of the stock's actual current value, although we expect it to take six to 12 months for the market price to reflect this. When the target price is more than 20% above the current share price, the stock will be classified as a Buy; when it is between 5% and 20% above the current share price, the stock may be classified as a Buy or a Hold; when it is between 5% below and 5% above the current share price, the stock will be classified as a Hold; when it is between 5% and 20% below the current share price, the stock may be classified as a Hold or a Reduce; and when it is more than 20% below the current share price, the stock will be classified as a Reduce.

Our ratings are re-calibrated against these bands at the time of any 'material change' (initiation or resumption of coverage, change in target price or estimates).

Upside/Downside is the percentage difference between the target price and the share price.

Prior to this date, HSBC's rating structure was applied on the following basis:

For each stock we set a required rate of return calculated from the cost of equity for that stock's domestic or, as appropriate, regional market established by our strategy team. The target price for a stock represented the value the analyst expected the stock to reach over our performance horizon. The performance horizon was 12 months. For a stock to be classified as Overweight, the potential return, which equals the percentage difference between the current share price and the target price, including the forecast dividend yield when indicated, had to exceed the required return by at least 5 percentage points over the succeeding 12 months (or 10 percentage points for a stock classified as Volatile*). For a stock to be classified as Underweight, the stock was expected to underperform its required return by at least 5 percentage points over the succeeding 12 months (or 10 percentage points for a stock classified as Volatile*). Stocks between these bands were classified as Neutral.

*A stock was classified as volatile if its historical volatility had exceeded 40%, if the stock had been listed for less than 12 months (unless it was in an industry or sector where volatility is low) or if the analyst expected significant volatility. However, stocks which we did not consider volatile may in fact also have behaved in such a way. Historical volatility was defined as the past month's average of the daily 365-day moving average volatilities. In order to avoid misleadingly frequent changes in rating, however, volatility had to move 2.5 percentage points past the 40% benchmark in either direction for a stock's status to change.

Rating distribution for long-term investment opportunities

As of 31 December 2022, the distribution of all independent ratings published by HSBC is as follows:

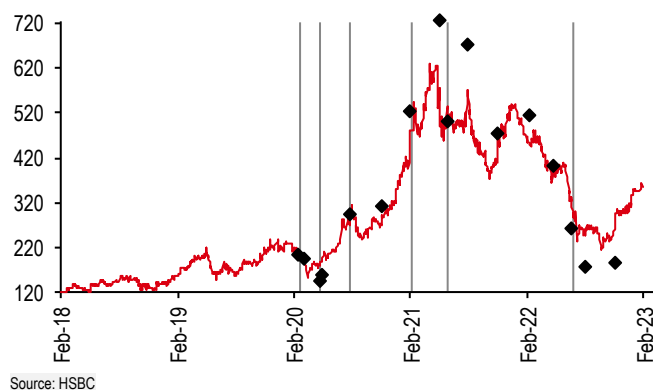
Buy	59%	(14% of these provided with Investment Banking Services in the past 12 months)
Hold	34%	(13% of these provided with Investment Banking Services in the past 12 months)
Sell	6%	(7% of these provided with Investment Banking Services in the past 12 months)

For the purposes of the distribution above the following mapping structure is used during the transition from the previous to current rating models: under our previous model, Overweight = Buy, Neutral = Hold and Underweight = Sell; under our current model Buy = Buy, Hold = Hold and Reduce = Sell. For rating definitions under both models, please see "Stock ratings and basis for financial analysis" above.

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Share price and rating changes for long-term investment opportunities

Novatek Microelectronics (3034.TW) share price performance TWD Vs HSBC rating history



Rating & target price history

From	To	Date	Analyst
Buy	Hold	20 Feb 2020	Samson Hung
Hold	Reduce	26 Apr 2020	Frank Lee
Reduce	Hold	30 Jul 2020	Frank Lee
Hold	Buy	04 Feb 2021	Frank Lee
Buy	Hold	01 Jun 2021	Frank Lee
Hold	Reduce	28 Jun 2022	Frank Lee
Target price	Value	Date	Analyst
Price 1	200.00	20 Feb 2020	Samson Hung
Price 2	193.00	06 Mar 2020	Samson Hung
Price 3	144.00	26 Apr 2020	Frank Lee
Price 4	156.00	06 May 2020	Frank Lee
Price 5	290.00	30 Jul 2020	Frank Lee
Price 6	310.00	06 Nov 2020	Frank Lee
Price 7	520.00	04 Feb 2021	Frank Lee
Price 8	725.00	06 May 2021	Frank Lee
Price 9	500.00	01 Jun 2021	Frank Lee
Price 10	670.00	05 Aug 2021	Frank Lee
Price 11	470.00	04 Nov 2021	Frank Lee
Price 12	515.00	13 Feb 2022	Frank Lee
Price 13	400.00	02 May 2022	Frank Lee
Price 14	260.00	28 Jun 2022	Frank Lee
Price 15	175.00	07 Aug 2022	Frank Lee
Price 16	185.00	08 Nov 2022	Frank Lee

Source: HSBC

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HSBC & Analyst disclosures

Disclosure checklist

Company	Ticker	Recent price	Price date	Disclosure
NOVATEK MICROELECTRONICS CORP	3034.TW	356.00	06 Feb 2023	4

Source: HSBC

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