

Hon Hai Precision (2317.TW/2317 TT)

Good entry opportunity on cloud & iPhone sales upcycle

FTSE4Good TIP Taiwan ESG Index stock

Outperform · Maintained

Price as of September 19 (NT\$)	176.5
12M target price (NT\$)	265.0
Previous target price (NT\$)	265.0
Unchanged (%)	0.0
Upside (%)	50.1

Key message

- 3Q24F sales have upside, with growth of over 15% QoQ.
- Al server sales grew over 60% QoQ and 200% YoY in 2Q24, and accounted for 13-15% of total sales and over 40% of server sales. Al server sales will keep growing in 2H24-2025F on the launch of GB200/ B200A GPUs.
- Product integration and automation will mitigate the gross margin impact of Al server sales growth. We believe solid Al server and CE sales growth will lead to 2025 EPS growth and stable operating margin.

Trading data

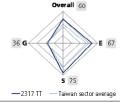
Dorformance 2M	60/ 120/
52-week trading range (NT\$)	94.50 –226.5
3M avg. daily trading (mn)	75.41
Foreign ownership (mn)	5,338
Outstanding shares (mn)	13,891
Mkt cap (NT\$bn/US\$mn)	2,452 / 76,850

Performance	3M	6M	12M
Absolute (%)	-13.1	29.8	65.7
Relative (%)	-8.1	18.8	33.2

Quarterly EPS

NT\$	1Q	2Q	3Q	4Q
2022	2.12A	2.40A	2.80A	2.88A
2023	0.93A	2.38A	3.11A	3.83A
2024	1.59A	2.53A	3.20F	4.00F

ESG score card



Source: Refinitiv

Event

Hon Hai Precision's positive outlook is intact for 2H24-2025F.

Impact

3Q24 sales growth will likely beat guidance. The firm guides 3Q24 sales growth of 4-14% QoQ and YoY, but we expect sales will grow over 15% QoQ and YoY based on better-than-expected July-August sales and rising September sales due to the launch of the new iPhone models. With AI server sales growth on improving Hopper GPU supply and small volume production of Blackwell GPUs in 4Q24F, and growing iPhone sales on the debut of new models, we forecast 20% QoQ sales growth in 4Q24. Therefore, we revise up 2024F sales growth to 11% YoY. On an AI server sales weighting uptrend from 30% of cloud sales in 2023 to approximately 40% in 2024F, and over 50% in 2025F, we estimate 2025F sales growth of 22% YoY.

Al server sales growth is on track, with gross margin supported by product integration & automation. The firm is confident about AI server sales prospects based on a strong client roster, product integration, global production site diversification, and automation advantages. CSP sales account for over 40% of cloud server sales (25-30% of 1H24 sales) on strong AI demand, which will rise in 2025F on a GB200 server rack production rampup. The firm has also seen AI demand grow from enterprises for 2024-25F. The company's Al server product portfolio will expand from GPU modules, baseboards, compute, and switch boards to server rack assemblies along with GPU and ASIC platform engagement. The GPU and ASIC platform ratio is currently around 7:3, with the GPU weighting likely to rise in 2025F. The firm aims to capture 40% of the AI server hardware market, with around 50% of the hardware content value (besides GPU) produced internally, including liquidcooling CDU, UQD, manifolds, cold plates, power busbars, and cables, in 2025-26. Therefore, growing AI server sales may mitigate the gross margin downtrend, which the firm guides will arrive above the corporate average in 2024, but below average at around mid-single digits for the GB200 in 2025. We think our 2025 forecasts of cloud sales of NT\$3.2tn (sales weighting of 38%), gross margin of 5.8%, and operating margin of 3% are in line with guidance. We also believe CE sales will be boosted by iPhone shipment growth in 2025, with assembly allocation of 60-65% due to ramp-up of production sites in India. We adjust our 2024-25F EPS forecasts moderately to a respective NT\$11.32, up 10% YoY, and NT15.21, up 34% YoY.

Valuation & Action

We maintain Outperform, with a target price of NT\$265, based on 20x 2024-25F EPS. The current valuation has corrected to an attractive level, providing a good entry opportunity.

Slow EV orders or component development; weakening global demand.

Key financials and valuations

	Dec-21A	Dec-22A	Dec-23A	Dec-24F	Dec-25F
Revenue (NT\$mn)	5,994,174	6,626,997	6,162,221	6,831,548	8,347,729
Gross profit (NT\$mn)	362,127	400,085	387,947	425,985	486,661
Operating profit (NT\$mn)	148,959	173,788	166,528	197,907	254,581
Net profit (NT\$mn)	139,320	141,483	142,098	156,936	210,922
EPS (NT\$)	10.05	10.21	10.25	11.32	15.21
Cash DPS (NT\$)	5.20	5.30	5.40	5.96	8.02
EPS growth (%)	36.9	1.6	0.4	10.4	34.4
PE (x)	17.6	17.3	17.2	15.6	11.6
PB (x)	1.8	1.7	1.6	1.6	1.5
EV/EBITDA (x)	8.3	7.7	7.3	6.2	5.1
Net debt to equity (%)	Net cash				
Dividend yield (%)	2.9	3.0	3.1	3.4	4.5
Return on average equity (%)	10.4	10.0	9.7	10.3	13.0
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Source: Company data; KGI Research estimates



2H24F & 2024F guidance

- The firm previously guided 3Q24F sales to rise QoQ and YoY by 4-15%, and expects consumer electronics (CE) sales to grow YoY in 2H24F, reversing a decline of 5% YoY in 2H23. After better-than-expected July-August sales, the company expects to achieve or exceed consensus of 14-15% QoQ and YoY growth for 3Q24F sales. We revise up our sales forecast to 16% QoQ and 17% YoY growth for 3Q24F.
- Hon Hai expects 4Q24F components sales to come down QoQ, as the segment entered peak season in 3Q24F, while Al server sales in the cloud networking business will continue to grow in 4Q24F; CE sales growth hinges on new model sell-through; computing business also depends on demand after the end-of-service for Windows 10.
- The firm guides 2024F capex growth to exceed that of 2023 (up 14% YoY).

Server business

- Server sales account for roughly 85% of Hon Hai's cloud and networking sales, while AI server sales account for 40% of overall server sales.
- Hon Hai expects Al server revenue to account for more than 40% of 2024F server sales, for high single digits in overall sales. In 2025F, as high-unit-price Al server racks become a mainstream product, the sales contribution from Al servers will become more significant.
- The company provides additional services such as server components production and design for CSP customers. Therefore, the gross margin on servers for CSP customers is higher than the company's average. However, as most server brand customers are focused solely on assembly, the gross margin of their products is lower than the company's average.
- Hon Hai expects GB200 servers will ship in small volumes before end-2024F and will ramp-up in 2025F. The gross margin of this product is in the mid-single digits, below the company's average.
- Currently, GB200 server orders are primarily for NVL72 servers, from 3-4 clients.
 There is also demand for NVL36 from some CSP clients. Adoption of the B200A chip is lower, with enterprise customers being the main users.
- The firm said it has key switch board technologies, with a high supply ratio. It also supplies Bianca compute boards to other rack assemblers, and is the second source for Arial compute board. Cables (made by subsidiary FIT (HK)) and bus bar products are under clients' certification processes.
- Hon Hai is able to produce UQD, cold plates, manifolds and CDU through subsidiary Foxconn Industrial Internet (FII; CN), in-house or through segments within the group. The firm has entered onto clients' supplier lists. The company has also developed immersion cooling technologies and products to address client needs.
- Hon Hai aims to internally produce more than 50% of the content value of GB200 server (excluding the GPU). The firm does not have HBM and storage self-manufacturing capabilities at present.
- Among currently offered server products, the sales weighting ratios of GPU and ASIC server platforms is approximately 7:3. Although sales of ASIC server products continue to rise, the sales weighting of GPU servers will expand as high-unit-price



GB200 GPU server production ramps up in 2025F.

EV business

- Hon Hai is negotiating with two Japanese medium-sized car manufacturers (not the top-three manufacturers) for three electric passenger car CDMS projects (planning for production in Thailand). It hopes to complete contract signing before year-end. If on track, the business will contribute sales in 2026F, at the earliest.
- Early this year, the company targeted annual shipments of 10k Model Cs. Current monthly shipments is 1,000 units. In January-July, Hon Hai shipped more than 5,000 units, indicating the 2024F target is likely to be achieved.
- EV production capacity
 - Current Taiwan plant is on loan from Yulon (2201 TT, NT\$56.2, NR). Construction of the Qiaotou electric bus factory commenced in 2Q24, and new production capacity is expected to ramp up in 2H25F. Annual output in 2025F and 2028F is expected to hit 500 and 1,000 units, respectively.
 - The Thailand plant currently has annual production capacity of 50k units. Capacity can be expanded to a maximum of 150k units depending on demand.
 - Annual production capacity of the US plant can reach 500k-600k units, but current capacity utilization rate is low. The company estimates it needs 6-7 sizable customers to be fully-utilized.
- New EV models will be showcased at 2024 Hon Hai Tech Day (HHTD24) on October 8-9.

Figure 1: Breakdown of 3Q-4Q24 forecast revisions vs. consensus

				3Q24F				4Q24F						
NT\$mn	Revision	Previous	Chg. (%)	QoQ (%)	YoY (%)	Consensus	Diff. (%)	Revision	Previous	Chg. (%)	QoQ (%)	YoY (%)	Consensus	Diff. (%)
Sales	1,798,639	1,737,233	3.5	16.0	16.6	1,776,838	1.2	2,158,367	2,149,572	0.4	20.0	16.5	2,131,939	1.2
Gross profits	113,314	109,446	3.5	13.9	10.3	116,489	(2.7)	129,502	128,974	0.4	14.3	14.3	133,800	(3.2)
Operating income	53,959	52,117	3.5	21.0	16.9	55,650	(3.0)	62,593	62,338	0.4	16.0	27.9	64,810	(3.4)
Pretax Income	60,133	58,508	2.8	24.2	5.1	61,876	(2.8)	69,811	70,207	(0.6)	16.1	4.4	71,343	(2.1)
Net income	44,426	43,126	3.0	26.8	3.0	45,592	(2.6)	55,456	55,767	(0.6)	24.8	4.3	54,782	1.2
EPS (NT\$)	3.20	3.11	3.0	26.8	3.0	3.29	(2.6)	4.00	4.02	(0.6)	24.8	4.3	3.95	1.2
Gross margin (%)	6.3	6.3	0.0 ppts	(0.1)ppts	(0.4)ppts	6.6	(0.3)ppts	6.0	6.0	0.0 ppts	(0.3)ppts	(0.1)ppts	6.3	(0.3)ppts
OP margin (%)	3.0	3.0	0.0 ppts	0.1 ppts	0.0 ppts	3.1	(0.1)ppts	2.9	2.9	0.0 ppts	(0.1)ppts	0.3 ppts	3.0	(0.1)ppts
Net margin (%)	2.5	2.5	(0.0)ppts	0.2 ppts	(0.3)ppts	2.6	(0.1)ppts	2.6	2.6	(0.0)ppts	0.1 ppts	(0.3)ppts	2.6	(0.0)ppts

Source: Company data; Bloomberg; KGI Research

Figure 2: Breakdown of 2024-25 forecast revisions vs. consensus

			2024	F					2025	F		
NT\$mn	Revision	Previous	Chg. (%)	YoY (%)	Consensus	Diff. (%)	Revision	Previous	Chg. (%)	YoY (%)	Consensus	Diff. (%)
Sales	6,831,548	6,761,348	1.0	10.9	6,792,098	0.6	8,347,729	8,313,714	0.4	22.2	8,372,034	(0.3)
Gross profit	425,985	421,589	1.0	9.8	433,947	(1.8)	486,661	484,678	0.4	14.2	523,587	(7.1)
Operating income	197,907	195,810	1.1	18.8	200,912	(1.5)	254,581	253,544	0.4	28.6	256,843	(0.9)
Pretax Income	210,852	209,624	0.6	9.7	216,082	(2.4)	279,406	280,248	(0.3)	32.5	284,190	(1.7)
Net income	156,936	155,947	0.6	10.4	159,233	(1.4)	210,922	211,599	(0.3)	34.4	209,593	0.6
EPS (NT\$)	11.32	11.25	0.6	10.4	11.49	(1.4)	15.21	15.26	(0.3)	34.4	15.12	0.6
Gross margin (%)	6.2	6.2	0.0 ppts	(0.1)ppts	6.4	(0.2)ppts	5.8	5.8	(0.0)ppts	(0.4)ppts	6.3	(0.4)ppts
OP margin (%)	2.9	2.9	0.0 ppts	0.2 ppts	3.0	(0.1)ppts		3.0	(0.0)ppts	0.2 ppts	3.1	(0.0)ppts
Net margin (%)	2.3	2.3	(0.0)ppts	(0.0)ppts	2.3	(0.0)ppts	2.5	2.5	(0.0)ppts	0.2 ppts	2.5	0.0 ppts

Source: Company data; Bloomberg; KGI Research estimates

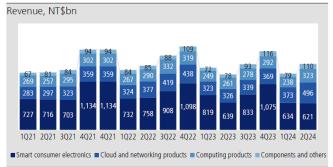


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Sales (NT\$bn)	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	1Q24	2Q24	3Q24F	4Q24F	2020	2021	2022	2023	2024F	2025F
Smart consumer electronics	732	758	908	1,098	819	639	833	1,075	634	621	793	1,174	2,593	3,280	3,496	3,366	3,222	3,376
Cloud & networking	324	377	419	438	323	326	339	369	373	496	525	554	1,316	1,267	1,557	1,358	1,948	3,190
Computing	267	290	332	319	249	261	278	292	238	323	292	277	1,136	1,114	1,208	1,079	1,130	1,182
Components & others	84	85	87	109	72	78	93	116	79	110	127	145	313	334	365	359	532	600
Total	1,408	1,510	1,747	1,963	1,462	1,305	1,543	1,852	1,324	1,551	1,799	2,158	5,358	5,994	6,627	6,162	6,832	8,348
Weighting (%)	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	1Q24	2Q24	3Q24F	4Q24F	2020	2021	2022	2023	2024F	2025F
Smart consumer electronics	52	50	52	56	56	49	54	58	48	40	44	54	48	55	53	54	47	40
Cloud & networking	23	25	24	22	22	25	22	20	28	32	29	26	25	21	24	22	29	38
Computing	19	19	19	16	17	20	18	16	18	21	16	13	21	19	18	18	17	14
Components & others	6	6	5	6	5	6	6	6	6	7	7	7	6	6	6	6	7	7
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
YoY (%)	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	1Q24	2Q24	3Q24F	4Q24F	2020	2021	2022	2023	2024F	2025F
Smart consumer electronics	1	6	29	(3)	12	(16)	(8)	(2)	(23)	(3)	(5)	9	(2)	27	7	(4)	(4)	5
Cloud & networking	14	27	29	20	(0)	(14)	(19)	(16)	15	52	55	50	5	(4)	23	(13)	43	64
Computing	2	12	13	8	(7)	(10)	(16)	(8)	(4)	24	5	(5)	2	(2)	8	(11)	5	5
Components & others	14	4	4	15	(15)	(7)	6	7	10	41	38	25	(3)	7	9	(2)	29	30
Total	4	12	24	4	4	(14)	(12)	(6)	(9)	19	17	17	0	12	11	(7)	11	22
QoQ (%)	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	1Q24	2Q24	3Q24F	4Q24F	2020	2021	2022	2023	2024F	2025F
Smart consumer electronics	(36)	4	20	21	(25)	(22)	30	29	(41)	(2)	28	48						
Cloud & networking	(11)	17	11	5	(26)	1	4	9	1	33	6	5						
Computing	(10)	8	15	(4)	(22)	5	6	5	(18)	36	(9)	(5)						
Components & others	(11)	0	3	25	(34)	9	18	25	(32)	40	15	14						
Total	(26)	7	16	12	(26)	(11)	18	20	(29)	17	16	20						

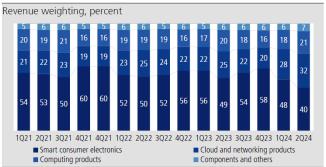
Source: Company data; KGI Research estimates

Figure 4: Revenue by product



Source: Company data; KGI Research

Figure 5: Revenue by product



Source: Company data; KGI Research



Figure 6: Hon Hai has announced partnerships with traditional & emerging automakers

Company	Announcement	JV ownership	Details
FIGA PIAT CHRYSLER ALEDWORLER	Jan-20	50% Hon Hai 50% Fiat Chrysler	1) Initially focusing on Chinese EV market. 2) PSA and FCA merged as Stellantis in January 2021. 3) FIH Mobile, Hon Hai's subsidiary, jointly invested in Mobile Drive with Stellantis to focus on infotainment, telematics and cloud service
STELEÓNTIS	May-21	50% FIH Mobile 50% Stellantis	platform development for smart cockpit. 4) Software R&D including Al, navigation, voice assistance, and payment systems. 5) Targets self-designed IC chips adopted in Stellantis vehicles by 2024.
🔷 裕隆汽車	Feb-20	51% Hon Hai 49% Yulong	1) Hon Hai and Yulong established a JV, Foxtron, in 2020. 2) Expects Foxtron to launch first EV model in 2-3 years.
GEELY	Jan-21	50% Hon Hai 50% Geely	JV may provide assembly service for Faraday Future.
	Feb-21	N.A.	 Hon Hai will work with Fisker in Project PEAR, targeting mass production of another EV model in 4Q23. Hon Hai announced in May 2021 it would establish an EV production site in the US with Fisker. PEAR project for Fisker will be produced at Lordstown's plant in Ohio.
å ptt	May-21	60% PTT Group 40% Hon Hai	 Signed Memorandum of Understanding (MoU) and founded JV to provide EV production platform in Thailand with investment of US\$1-2bn. Targets mass production with annual EV capacity of 50k in 2023-2024. Planned annual EV capacity is 150k.
gogoío	Jun-21	N.A.	Signed MoU to work on EV battery exchange.
三地集團 San-Ti Group	Jul-21	N.A.	1) Foxtron signed MoU to work on EV bus. 2) Expects to operate in southern Taiwan in 2022.
LORDSTOWN	Sep-21	N.A.	 Hon Hai reached an agreement with Lordstown to cooperate in electric pickup truck production. Hon Hai will purchase Lordstown's Ohio plant and equipment for US\$230mn. Targets mass production of Endurance full-size pickup and revenue contribution in 2H22. Both will pursue JV to co-design and develop vehicles for commercial fleet with MIH platform, and both have the right to commercialize new EV programs in US and internationally. Hon Hai will purchase Lordstown's shares for US\$67.85mn. Maximum annual capacity of 500-600k.
The state of the s	Feb-22	8.2% Hon Hai	1) Hon Hai will invest SAR562.5mn to acquire 8.2% of JV. 2) Targets sedan and SUV. 3) Will cooperate in EEA, software, and cloud.
LORDSTOWN	May-22	55% Hon Hai	 Hon Hai completed OEM manufacturing agreement, signed JV development agreement, and formally acquired Lordstown factory. Hon Hai will invest U\$\$55mn in the JV and hold 55% of shares. Lordstown Motors will become Hon Hai's first mass-production commercial vehicle customer and start to produce electric pickups in Ohio in 2H22.
MONARCH.	Aug-22	N.A.	 Hon Hai signed contract manufacturing agreement (CMA) with Monarch Tractor to build next-generation agricultural equipment and battery packs at Foxconn Ohio facility. Foxconn's first CMA following closing of Asset Purchase Agreement (APA). Scheduled to begin full-rate production of Monarch Tractor's MK-V Series in 1Q23 at Foxconn Ohio (~6.2mn square feet).
INDIKA	Sep-22		 Hon Hai announced to establish a JV, PT Foxconn Indika Motor (FIM), with PT Mitra Motor Group (MMG), a subsidiary of Indika Energy, through its affiliate Foxteq Singapore Pte. Ltd The establishment of FIM is a continuation of the MoU signed in Jan. 2022 by Indika, Foxconn, and others. FIM will conduct manufacturing business for commercial electric vehicles and electric batteries, as well as providing management consultation service.
•	Oct-22		 Hon Hai announced the signing of MOU with INDIEV to manufacture the first INDI One prototype vehicles at Foxconn Ohio. This MOU is the newest EV manufacturing opportunity confirmed for Foxconn after completing the Asset Purchase Agreement ("APA"). Potential collaboration will be disclosed at a later date as both sides remain in negotiation.
1	Nov-22		 Public Investmen Fund (PIF) announced the launch of Ceer, a joint venture between PIF and Foxconn. Ceer is the first EV brand in Saudi Arabia and will license component technology from BMW. Ceer will attract over US\$150mn of foreign direct investment, projected to directly contribute US\$8 bn to Saudi Arabia's GDP by 2034.
LORDSTOWN	Nov-22		1) Hon Hai announced to invest US\$170mn in Lordstown through its subsidiary Foxconn Ventures Pte. Ltd. 2) After the completion of the transaction, Hon Hai will hold all of Lordstown's outstanding preferred stock and 18.3% of its common stock. 3) Hon Hai will become the biggest shareholder of Lordstown and have the right to designate two board members after this deal.

Source: Company data; KGI Research



Figure 7: Hon Hai	has announced	partnershi	ps with ke	y EV com	ponent manufacturers

Company	Announceme	nt JV ownership	Product	Details
YAGEO	May-21	N.A.	Small IC (power and analog)	I) JV Xsemi will focus on ASP < US\$2 small IC (power and analog). Xsemi will be headquartered in Hsinchu, mainly for small IC sales and channel development.
(Ext をすが外のかまた) 日 GERN SOLIN HOTERING S COMP. 学 英	Jun-21	N.A.	Battery material	1) Hon Hai invested NT\$995mn to acquire 10.5% Gigasolar's shares. 2) Expects to develop batteries for EV such as LFP, targets launch of MCU and SoC for EV by end-2021, and solid-state lithium ion batteries could enter mass production in 2024.
(1) 中鋼碳素	Sep-21	N.A.	Battery material	On September 28, 2021, Hon Hai signed MoU with Giga Solar, Long Time, and CSCC to develop negative electrode battery material. Targets release of first power battery for E-bus in 2023.
SES Beyond Livian'	Jul-21	N.A.	Battery material	Hon Hai participated in SES (Solid Energy Systems) private placement. Expects to develop high-energy density battery for EV.
尼得料 -All for dreams	Jul-21	N.A.	EV drive system Traction motor system	On March 18, 2021, Foxtron signed MoU with Nidec to develop EV drive system. JUV will be founded and headquartered in Talwan in 2022. Hon Hai, Foxtron and Nidec will use JV for production and sale of traction motor systems.
INDIKA	Jan-22	N.A.	Battery cells, module and pack EV and E-scooter Energy storage systems	Signed MoU to work on EV battery, EV, E-scooter and energy storage systems with PT. Industri Baterai Indonesia (IBC), Indika and Gogoro. Will cooperate with Indonesia government to mine Nickel for LFP battery. Indonesia government expects overall investment to reach US\$8bn, and production revenue to arrive at US\$100bn in 2030.
XRSPACE	Feb-22	N.A.	Metaverse	1) Signed MoU to work on hardware and software vertical integration to create holistic Metaverse ecosystem. 2) Focused on ARV/R, software, infrastructure, content and cloud services. 3) Hon Hai will help XRSPACE to improve its platform performance of PartyOn and GOXR. 4) Hon Hai plans to invest US\$15mn to acquire 9.09-9.68% in the first stage, and could increase investment to maximum of US\$100mn if needed.
	Apr-22	N.A.	Green Power	1) Hon Hal signed MoU with Shinfox Energy's subsidiary, Fu Wei Power, for green power procurement. 2) Hon Hal purchased 2.36 million units of green power this year and expects to purchase 70 million units by 2030.
arQana	Apr-22	100%	RF semiconductor	Hon Hai completed acquisition of arQana's wireless department, which will merge with AchernarTek Inc. to form new company iCana. Becoming global RF semiconductor component supplier to strengthen product development for 5G Sub-6 and millimeter wave. Expanding internet vehicles and electric vehicles market.
DN@X	May-22	Hon Hai 5.03%	Semiconductor	Hon Hai subsidiary, Big Innovation Holdings Limited (BIH), signed MoU with DNeX Group. Constructing 12-inch wafer fab in Malaysia with monthly capacity of 40K wafers, mainly in 28 and 40 nanometers. Targets production of power components, radio frequency components, and CMOS image sensor products.
XSEMI	May-22	49% Yageo 51% Hon Hai		1) Hon Hai participated in NT\$3.1 billion capital increase of XSEMI and will hold 51% of XSEMI. 2) JV will mainly serve system and channel customers. 3) XSEMI participated in NT\$2.8 billion private placement with Fudin; XSEMI will be the largest shareholder at 30.08%. Targets complete line of medium and high-voltage SI MOSFETs to supply EV and industrial semiconductor products.
O	Jul-22	10% Hon Hai	Semiconductor material	1) Hon Hai invested NT\$500 million to acquire 10% of shares. 2) Cooperation will help Hon Hai subsidiary Hon Young Semiconductor to obtain SIC substrate and strengthen vertical integration of supply chain for electric vehicles and semiconductors.
NP	Jul-22			Hon Hai signed MoU with NXP to jointly develop platforms for new generation of smart connected vehicles. Hon Hai will integrate NXP's S32 family of processors into its EV platform. Hon Hai and NXP outlined more than 10 automative products for first stage.
PRETTL SWH group	Jan-23		Connector	1) Hon Hai's Hon Teng Precision Technology (FIT) announced to acquire PRETTL SWH Group for 186mn euros. 2) PRETTL SWH Group is a German firm assisting customers in the development and manufacture of high-end automotive sensor wiring harnesses and connectors and automotive power solutions. 3) This acquisition is estimated to bring FIT an annual revenue contribution of about 350-400mn euros in the short term and is expected to improve FIT's overall gross margin on better product mix in the future.
infineon	May-23		Semiconductor	 Infineon and Hon Hai sign MoU to partner on SIC collaboration in EV development. The MoU addresses their collaboration on the implementation of SIC technology in automotive high-power applications including traction inverters, onboard chargers, and DC-DC converters. A system application center in Taiwan is expected to be established in 2023 to further expand the scope of their cooperation.
SiliconAuto	Jun-23	50% Hon Hai 50% Stellantis	Semiconductor	1) Stellants and Hon Hai announced to create SiliconAuto, a JV to design and sell automotive semiconductors. 2) SiliconAuto's products will start to tailor chips for Hon Hai, Stellantis and other customers in 2026.
ANALOG DEVICES	Jul-23		Digital Cockpit, Battery Management System (BMS)	1) Hon Hai and Analog Devices signed a MoU to jointly develop the next-generation digital car cockpit and BMS. 2) The two firms aims to create a smarter mobility ecosystem by advancing software-defined vehicles.
TF	Jul-23	50% Hon Hai 50% ZF Group	Chassis	1) Foxconn acquires 50% stake in ZF Chassis Modules GmbH, a unit of ZF Group with an enterprise value of €1bn. 2) The partnership focuses on the development of passenger car chassis system. 3) This strategic partnership will leverage capabilities of the two parties and expand the range of product offerings in ICE/EV space, and seeks to enlarge customer base for the both.
HCL	Jan-24	40% Hon Hai	Semiconductor	1) Hon Hai and HCL Group jointly set a semicondutor OSAT in India. 2) The manufacturing site will locate in Karnataka, with a focused on small and medium-outline package.

Source: Company data; KGI Research



Figure 8: Company profile

Founded in 1974, Hon Hai Precision is the world's largest electronic manufacturing service (EMS) company, principally engaged in the assembly and production of computers, consumer electronics, servers, and networking equipment. It also has several investment arms spanning semiconductors, machinery modules, and industrial internet. The firm operates businesses domestically and overseas.

Source: Company data; KGI Research

Figure 10: Sales



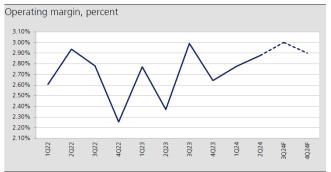
Source: KGI Research

Figure 12: Gross Margin



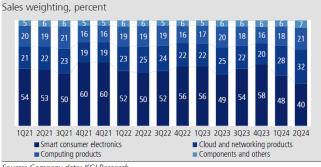
Source: KGI Research

Figure 14: Operating Margin



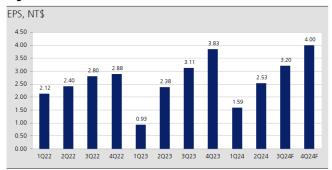
Source: KGI Research

Figure 9: Sales by segment



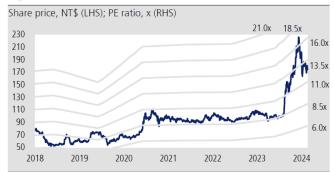
Source: Company data; KGI Research

Figure 11: EPS



Source: KGI Research

Figure 13: 12M forward PE band



Source: TEJ; KGI Research estimates

Figure 15: 12M forward PB band



Source: TEJ; KGI Research estimates

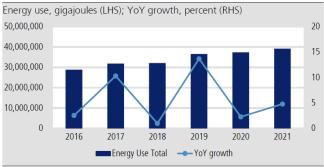


Figure 16: Overall ESG score



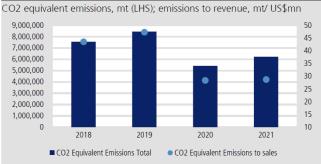
Source: Refinitiv; Company data

Figure 18: Energy use



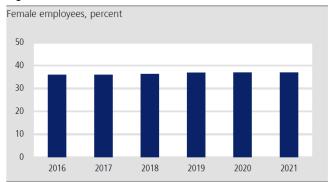
Source: Refinitiv; Company data

Figure 20: CO2 equivalent emissions



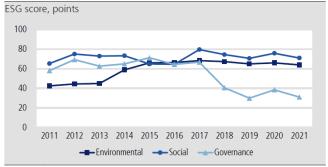
Source: Refinitiv; Company data

Figure 22: Gender diversification



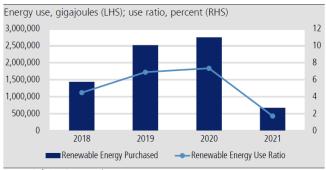
Source: Refinitiv; Company data

Figure 17: ESG score



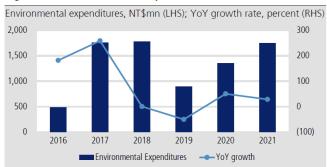
Source: Refinitiv; Company data

Figure 19: Renewable energy



Source: Refinitiv; Company data

Figure 21: Environmental expenditures



Source: Refinitiv; Company data

Figure 23: Water use to revenue



Source: Refinitiv; Company data



ESG chart definition		
Item	Definition	Remarks
Energy use	Total direct and indirect energy consumption in gigajoules. - the total amount of energy that has been consumed within the boundaries of the company's operations - total energy use = total direct energy consumption + indirect energy consumption - purchased energy and produced energy are included in total energy use - for utilities, transmission/ grid loss as part of its business activities is considered as total energy consumed and data does not consider electricity produced to answer energy use (utility company produces to sell) - for utilities, raw materials such as coal, gas or nuclear used in the production of energy are not considered under 'total energy use'	
Renewable energy purchased	Total primary renewable energy purchased in gigajoules. - energy consumed by the company from various sources and among the purchased energy, how much energy is renewable in nature (solar, wind, hydro, biomass, geothermal) are in scope - if there is no evidence that renewable energy is produced by the company, then we consider the reported energy figure as renewable energy purchased	
Renewable energy use ratio	Renewable energy to total energy used	
CO2 equivalent emissions	Direct CO2 and CO2 equivalent emissions in metric tons. - direct emissions from sources that are owned or controlled by the company (scope 1 emissions) - following gases are relevant: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCS), perfluorinated compound (PFCS), sulfur hexafluoride (SF6), nitrogen trifluoride (NF3)	
CO2 equivalent emissions to sales	Direct CO2 and CO2 equivalent emissions (metric tons) to sales (NT\$mn) - direct emissions from sources that are owned or controlled by the company (scope 1 emissions) - following gases are relevant: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCS), perfluorinated compound (PFCS), sulfur hexafluoride (SF6), nitrogen trifluoride (NF3)	;
Waste total	Total amount of waste produced in metric tons. - total waste = non-hazardous waste + hazardous waste - only solid waste is taken into consideration, exceptionally if liquid waste is reported in metric tons, then we do the summation to derive total including liquid waste - for sectors like mining, oil & gas, waste generation like tailings, waste rock, coal and fly ash are also considered	
Waste recycling ratio	The waste recycling ratio as reported by the company waste recycling ratio = waste recycled/total waste*100 - waste to energy or waste incinerated with energy recovery are considered as waste recycled - waste recovered via composting is considered as recycled waste	
Water withdrawal total	Total water withdrawal in cubic meters. - the total volume of water withdrawn from any water source that was either withdrawn directly by the reporting organization or through intermediaries such as water utilities - different sources of water like wells, town/utility/municipal water, river water, and surface water are considered	
Environmental expenditures	Total amount of environmental expenditures all environmental investment & expenditures for environmental protection or to prevent, reduce, control environmental aspects, impacts, and hazards. It also includes disposal, treatment, sanitation, and clean-up expenditures	
Turnover of employees	Percentage of employee turnover. - includes employees who left the company for any reason (voluntary or involuntary), such as resignations, retirement, natural departure/death, medical incapacitation, redundancy, layoffs, restructuring, dismissal, retrenchment or end of a fixed-term contract - employees turnover rate = (employees leaving/average number of employees)*100 - where the average number of employees = (employees at the end of the current year + employees at the end of the previous year)/2 - employees at the end of the current fiscal year = employees at the end of the previous fiscal year + new employees - employees leaving	d
Women managers	Percentage of women managers. - percentage of women managers among total managers of the company - if there is a breakdown by category in percentage, such as top, senior, middle, and junior management, there we consider the percentage of middle women managers - percentage of women managers = number of women managers/total number of managers*100	1
Women employees	Percentage of women employees percentage of women employees to the total number of employees of the company - percentage of women employees = number of women/total number of employees*100	
Training hours total	Total training hours performed by all employees. - consider only employee training hours - includes all types of training given to general employees (such as health & safety, environmental, emergenc response, skills & career development training) - if the value is given in days, multiply by 8, assuming that 1 day = 8 hours worked	у



	Quarterly								Annually		
	Mar-23A	Jun-23A	Sep-23A	Dec-23A	Mar-24A	Jun-24A	Sep-24F	Dec-24F	Dec-23A	Dec-24F	Dec-25F
Income statement (NTSmn)				200 2011			3 GP 2		200 207		
Revenue	1,462,437	1,304,548	1,543,164	1,852,072	1,323,992	1,550,551	1,798,639	2,158,367	6,162,221	6,831,548	8,347,729
Cost of goods sold	(1,374,103)	(1,220,971)	(1,440,410)	(1,738,790)	(1,240,329)	(1,451,044)	(1,685,325)	(2,028,865)	(5,774,274)	(6,405,563)	(7,861,068)
Gross profit	88,334	83,577	102,753	113,282	83,662	99,507	113,314	129,502	387,947	425,985	486,661
Operating expenses	(47,811)	(52,652)	(56,604)	(64,352)	(46,912)	(54,902)	(59,355)	(66,909)	(221,419)	(228,078)	(232,079)
Operating profit	40,523	30,925	46,150	48,930	36,751	44,604	53,959	62,593	166,528	197,907	254,581
Depreciation of fixed assets	(18,039)	(19,746)	(20,828)	(20,059)	(19,473)	(18,745)	(25,108)	(37,105)	(78,672)	(100,431)	(124,774)
Amortisation of intangible assets	(1,502)	(1,429)	(1,574)	(1,229)	(792)	(743)	(1,348)	(2,508)	(5,734)	(5,390)	(5,390)
EBITDA	60,064	52,101	68,552	70,218	57,016	64,092	80,414	102,205	250,934	303,728	384,745
Interest income	16,530	22,572	20,869	21,730	15,437	11,799	14,017	14,815	81,700	56,068	57,844
Investment income	356	1,269	2,835	762	310	1,371	1,500	2,319	5,222	5,500	12,000
Other non-op income	1,032	9,744	5,111	11,715	905	2,974	700	9,421	27,603	14,000	8,000
Non-operating income	17,918	33,585	28,815	34,207	16,652	16,144	16,217	26,556	114,525	75,568	77,844
Interest expense	(14,752)	(16,805)	(17,747)	(16,239)	(10,636)	(9,263)	(10,043)	(10,231)	(65,543)	(40,174)	(41,019)
Investment loss	(18,952)	-	-	-	(10,649)	-	-	-	(18,952)	(10,649)	(8,000)
Other non-op expenses	(4,334)	_	_	_	392	(3,085)	_	(9,107)	(4,334)	(11,800)	(4,000)
Non-operating expenses	(38,038)	(16,805)	(17,747)	(16,239)	(20,894)	(12,348)	(10,043)	(19,337)	(88,829)	(62,623)	(53,019)
Pre-tax profit	20,403	47,705	57,217	66,898	32,509	48,400	60,133	69,811	192,224	210,852	279,406
Current taxation	(6,804)	(12,262)	(9,727)	(8,641)	(7,636)	(9,455)	(12,027)	(11,999)	(37,435)	(41,116)	(54,484)
Minorities	(775)	(2,443)	(4,362)	(5,112)	(2,864)	(3,900)	(3,680)	(2,357)	(12,691)	(12,800)	(14,000)
Normalised net profit	12,825	33,001	43,128	53,145	22,009	35,045	44,426	55,456	142,098	156,936	210,922
Extraordinary items	(0)	(0)	(0)	0	0	0	-	(0)	-	-	
Net profit	12,825	33,001	43,128	53,145	22,009	35,045	44,426	55,456	142,098	156,936	210,922
EPS (NT\$)	0.93	2.38	3.11	3.83	1.59	2.53	3.20	4.00	10.25	11.32	15.21
Margins (%)											
Gross profit margin	6.0	6.4	6.7	6.1	6.3	6.4	6.3	6.0	6.3	6.2	5.8
Operating margin	2.8	2.4	3.0	2.6	2.8	2.9	3.0	2.9	2.7	2.9	3.0
EBITDA margin	4.1	4.0	4.4	3.8	4.3	4.1	4.5	4.7	4.1	4.4	4.6
Pretax profit margin	1.4	3.7	3.7	3.6	2.5	3.1	3.3	3.2	3.1	3.1	3.3
Net profit margin	0.9	2.5	2.8	2.9	1.7	2.3	2.5	2.6	2.3	2.3	2.5
Sequential growth (%)											
Revenue growth	(25.5)	(10.8)	18.3	20.0	(28.5)	17.1	16.0	20.0			
Gross profit growth	(20.5)	(5.4)	22.9	10.2	(26.1)	18.9	13.9	14.3			
Operating profit growth	(8.4)	(23.7)	49.2	6.0	(24.9)	21.4	21.0	16.0			
EBITDA growth	(8.5)	(13.3)	31.6	2.4	(18.8)	12.4	25.5	27.1			
Pretax profit growth	(61.1)	133.8	19.9	16.9	(51.4)	48.9	24.2	16.1			
Net profit growth	(67.9)	157.3	30.7	23.2	(58.6)	59.2	26.8	24.8			
YoY growth (%)											
Revenue growth	3.9	(13.6)	(11.6)	(5.7)	(9.5)	18.9	16.6	16.5	(7.0)	10.9	22.2
Gross profit growth	4.2	(13.5)	(4.5)	2.0	(5.3)	19.1	10.3	14.3	(3.0)	9.8	14.2
Operating profit growth	10.5	(30.2)	(4.9)	10.6	(9.3)	44.2	16.9	27.9	(4.2)	18.8	28.6
EBITDA growth	11.1	(22.7)	8.5	6.9	(5.1)	23.0	17.3	45.6	0.3	21.0	26.7
Pretax profit growth	(44.7)	1.6	11.8	27.5	59.3	1.5	5.1	4.4	2.5	9.7	32.5
Net profit growth	(56.5)	(0.9)	11.3	32.9	71.6	6.2	3.0	4.3	0.4	10.4	34.4

Source: Company data; KGI Research estimates



NT\$mn	Dec-21A	Dec-22A	Dec-23A	Dec-24F	Dec-25F
Total assets	3,908,878	4,133,974	3,939,789	4,106,902	4,459,311
Current assets	3,034,417	3,200,506	3,035,966	3,167,906	3,517,635
Cash & ST securities	1,110,661	1,084,732	1,350,230	1,312,390	1,258,442
Inventory	672,145	939,022	730,765	808,444	994,860
Accounts receivable	1,161,219	1,098,690	872,270	964,372	1,181,631
Other current assets	90,393	78,062	82,700	82,700	82,700
Non-current assets	874,461	933,469	903,823	938,996	941,676
LT investments	429,600	435,825	393,134	398,737	396,191
Net fixed assets	310,107	362,405	393,967	423,537	428,763
Other assets	134,754	135,239	116,722	116,722	116,722
Total liabilities	2,335,618	2,483,443	2,253,545	2,333,599	2,572,204
Current liabilities	1,997,680	2,113,814	1,909,335	1,976,737	2,197,228
Accounts payable	1,076,178	1,068,941	893,119	988,055	1,215,888
Interest bearing ST liabilities	608,958	647,194	648,993	613,643	577,860
Other current liabilities	312,544	397,678	367,222	375,039	403,480
Non-current liabilities	337,938	369,630	344,211	356,862	374,976
Long-term debt	275,600	301,017	271,625	284,277	302,391
Other L-T liabilities	44,121	51,151	55,874	55,874	55,874
Total equity	1,573,260	1,650,531	1,686,244	1,773,303	1,887,107
Share capital	138,630	138,630	138,630	138,630	138,630
Retained earnings reserve	871,193	925,890	987,704	1,061,963	1,161,767
Minority interests	192,803	199,986	193,135	205,935	219,935
Preferred shareholders funds	-	-	-	-	-

	Dec-21A	Dec-22A	Dec-23A	Dec-24F	Dec-25
Growth					
Revenue growth	11.9%	10.6%	(7.0%)	10.9%	22.2%
Operating profit growth	34.4%	16.7%	(4.2%)	18.8%	28.6%
EBITDA growth	27.6%	11.5%	0.3%	21.0%	26.7%
Net profit growth	36.9%	1.6%	0.4%	10.4%	34.4%
EPS growth	36.9%	1.6%	0.4%	10.4%	34.4%
Profitability					
Gross profit margin	6.0%	6.0%	6.3%	6.2%	5.8%
Operating margin	2.5%	2.6%	2.7%	2.9%	3.0%
EBITDA margin	3.7%	3.8%	4.1%	4.4%	4.6%
Net profit margin	2.3%	2.1%	2.3%	2.3%	2.5%
Return on average assets	3.7%	3.5%	3.5%	3.9%	4.9%
Return on average equity	10.4%	10.0%	9.7%	10.3%	13.0%
Stability					
Gross debt to equity	56.2%	57.4%	54.6%	50.6%	46.6%
Net debt to equity	Net cash	Net cash	Net cash	Net cash	Net cas
Interest coverage (x)	9.8	6.4	3.9	6.2	7.8
Interest & ST debt coverage (x)	0.2	0.2	0.2	0.2	0.3
Cash flow interest coverage(x)	(4.5)	3.2	6.8	4.8	3.9
Cash flow/int. & ST debt (x)	(0.2)	0.2	0.6	0.3	0.3
Current ratio (x)	1.5	1.5	1.6	1.6	1.6
Quick ratio (x)	1.2	1.1	1.2	1.2	1.1
Net debt (NT\$mn)	(174,860)	(114,115)	(277,044)	(261,903)	(225,625
Per share data					
EPS (NT\$)	10.05	10.21	10.25	11.32	15.21
CFPS (NT\$)	(7.09)	7.91	32.14	13.93	11.63
BVPS (NT\$)	99.58	104.63	107.70	113.06	120.26
Adj BVPS (NT\$)	99.59	104.65	107.72	113.06	120.26
SPS (NT\$)	432.43	478.09	444.56	492.79	602.16
EBITDA/share (NT\$)	16.19	18.05	18.10	21.91	27.75
Cash DPS (NT\$)	5.20	5.30	5.40	5.96	8.02
Activity					
Sales / avg assets	1.58	1.65	1.53	1.70	1.95
Days receivable	70.7	60.5	51.7	51.7	51.7
Days inventory	43.6	55.0	46.2	46.2	46.2
Days payable	69.7	62.7	56.5	56.5	56.5
Cash cycle	44.5	52.9	41.4	41.4	41.4

Source: Company data; KGI Research estimates

Profit & loss					
NT\$mn	Dec-21A	Dec-22A	Dec-23A	Dec-24F	Dec-25F
Revenue	5,994,174	6,626,997	6,162,221	6,831,548	8,347,729
Cost of goods sold	(5,632,047)	(6,226,912)	(5,774,274)	(6,405,563)	(7,861,068)
Gross profit	362,127	400,085	387,947	425,985	486,661
Operating expenses	(213,168)	(226,297)	(221,419)	(228,078)	(232,079)
Operating profit	148,959	173,788	166,528	197,907	254,581
Non-operating income	66,044	64,268	114,525	75,568	77,844
Interest income	32,456	43,303	81,700	56,068	57,844
Investment income	28,660	11,063	5,222	5,500	12,000
Other non-op income	4,928	9,902	27,603	14,000	8,000
Non-operating expenses	(21,432)	(50,544)	(88,829)	(62,623)	(53,019)
Interest expense	(21,958)	(34,736)	(65,543)	(40,174)	(41,019)
Investment loss	-	-	(18,952)	(10,649)	(8,000)
Other non-op expenses	527	(15,808)	(4,334)	(11,800)	(4,000)
Pre-tax profit	193,572	187,511	192,224	210,852	279,406
Current taxation	(39,749)	(36,440)	(37,435)	(41,116)	(54,484)
Minorities	(14,503)	(9,589)	(12,691)	(12,800)	(14,000)
Extraordinary items	-	0	(0)	-	-
Net profit	139,320	141,483	142,098	156,936	210,922
EBITDA	224,441	250,248	250,934	303,728	384,745
EPS (NT\$)	10.05	10.21	10.25	11.32	15.21

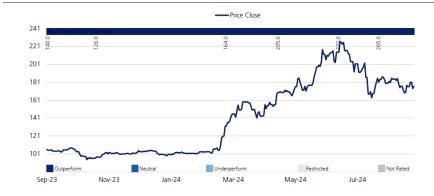
Cash flow					
NTSmn	Dec-21A	Dec-22A	Dec-23A	Dec-24F	Dec-25F
Operations cash flow	(98,212)	109,708	445,553	193,062	161,243
Net profit	139,320	141,483	142,098	156,936	210,922
Depreciation & amortisation	75,481	76,460	84,406	105,821	130,164
Decrease in working capital	(302,448)	(197,434)	247,995	(74,844)	(175,843)
Other operating cash flow	(10,565)	89,199	(28,946)	5,149	(4,000)
Investing cash flow	(92,083)	(45,440)	(137,874)	(146,143)	(128,844)
Sale of ST investment	(31,480)	29,944	(132,622)	-	-
New investments	(7,662)	(45,351)	23,845	(10,753)	6,546
Capital expenditure	(92,296)	(97,935)	(111,745)	(130,000)	(130,000)
Others investing cashflow	39,355	67,902	82,647	(5,390)	(5,390)
Free cash flow	(206,247)	(84,746)	349,020	54,901	23,868
Financing cash flow	24,281	(87,872)	(160,638)	(84,759)	(86,346)
Increase in short term debt	99,435	23,682	(74,237)	(40,000)	(40,000)
Increase in long term loans	28,293	7,242	27,361	17,301	22,331
New ordinary shares issued	5,000	(7,763)	4,805		
Ordinary dividends paid	(58,745)	(79,026)	(80,722)	(74,860)	(82,677)
Other financing cashflow	(49,702)	(32,006)	(37,845)	12,800	14,000
Forex effects	(7,363)	26,512	(11,704)		
Total cash generated	(173,377)	2,909	135,336	(37,840)	(53,947)

ROIC					
	Dec-21A	Dec-22A	Dec-23A	Dec-24F	Dec-25F
1 - COGS/revenue					
- Operating exp./revenue	3.6%	3.4%	3.6%	3.3%	2.8%
= Operating margin	2.5%	2.6%	2.7%	2.9%	3.0%
1 / (Working capital/revenue	0.1	0.1	0.1	0.1	0.1
+ Net PPE/revenue	0.1	0.1	0.1	0.1	0.1
+ Other assets/revenue)	0.0	0.0	0.0	0.0	0.0
= Capital turnover	6.9	6.4	7.4	7.3	7.7
Operating margin	2.5%	2.6%	2.7%	2.9%	3.0%
x Capital turnover	6.9	6.4	7.4	7.3	7.7
x (1 - tax rate)	79.5%	80.6%	80.5%	80.5%	80.5%
= After-tax ROIC	13.5%	13.5%	16.1%	17.1%	18.9%

Source: Company data; KGI Research estimates



Hon Hai Precision - Recommendation & target price history



Date	Rating	Target	Price
2024-08-14	Outperform	265.0	185.5
2024-07-05	Outperform	270.0	214.5
2024-05-15	Outperform	205.0	170.5
2024-05-06	Outperform	205.0	167.5
2024-03-15	Outperform	164.0	132.0
2023-11-07	Outperform	126.0	96.1
2023-10-19	Outperform	140.0	103.5
2023-08-14	Outperform	140.0	110.0
2023-07-06	Outperform	145.0	105.5
2023-05-12	Neutral	106.0	102.5

Source: TEJ; KGI Research

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