

Hon Hai (2317.TW/2317 TT)

Solid cloud & AI sales growth to fuel margins in 2024F

FTSE4Good TIP Taiwan ESG Index stock

Outperform · Maintained

Price as of March 14 (NT\$)	121.0
12M target price (NT\$)	164.0
Previous target price (NT\$)	126.0
Revised up (%)	30.2
Upside (%)	35.5

Key message

- 4Q23 EPS of NT\$3.83 & 2023 EPS of NT\$10.25 beat consensus & our forecast.
- 2024F's main catalyst will be a cloud sales expansion in light of robust AI server growth, which will improve its gross margin trend in 2024-25F.
- The firm targets AI sales growth of over 40% YoY in 2024F, with a sales weighting over 40% for server sales, and GPU related sales at least doubling YoY.

Trading data

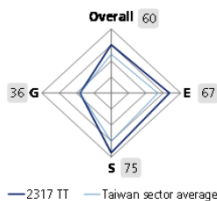
Mkt cap (NT\$bn/US\$mn)	1,677 / 53,263
Outstanding shares (mn)	13,863
Foreign ownership (mn)	5,434
3M avg. daily trading (mn)	29.97
52-week trading range (NT\$)	94.50 – 121.0

Performance	3M	6M	12M
Absolute (%)	18.6	13.6	18.6
Relative (%)	5.7	-5	-11.2

Quarterly EPS

NT\$	1Q	2Q	3Q	4Q
2022	2.12A	2.40A	2.80A	2.88A
2023	0.93A	2.38A	3.11A	3.83F
2024	2.34F	2.46F	3.31F	4.05F

ESG score card



Source: Refinitiv

Event

Hon Hai post stronger-than-expected 4Q23 EPS of NT\$3.83, with margins and non-operating profit beating our forecasts. 2023 EPS was NT\$10.25, flat YoY. Cash dividend of NT\$5.4 per share, for a payout ratio of 53% and cash yield of 4.5%.

Impact

4Q23 & 2023 EPS beat on margins. 4Q23 EPS was NT\$3.83, up 23% QoQ and 33% YoY, beating consensus and our estimate due to stronger operating margin of 2.6%, up YoY, despite gross margin falling QoQ to 6.1% on an unfavorable product mix, with a higher consumer electronics sales weighting, and higher non-operating profit from investment income. 2023 EPS was NT\$10.25, flat YoY, with gross margin of 6.3% and operating margin of 2.7%, thanks to a component sales weighting bump to 6%, and good cost control. In 2023, 54% of sales were from consumer electronics, mainly iPhones, down 4% YoY, 22% from cloud, down 13% YoY, 18% from computing, down 11% YoY, and 11% from components, flat YoY. AI server sales growth of 30% was offset by a general server sales decline, with the AI server sales weighting rising to 30% of total server sales, or 4-5% of total sales in 2023.

Cloud sales to drive 2024F growth; AI server sales to grow by over 40%; GPU sales growth higher than 100%. Management guided a cloud AI sales growth target of over 40% YoY, with a sales weighting of over 40% of total server sales in 2024F. GPU related sales, of modules and baseboards, are forecast to at least double YoY in 2024F, following a CoWoS capacity expansion, while AI server sales from CSPs and brands will grow by greater than 50% and 30% YoY, respectively. The firm targets an AI server market share of 40%, amid an impressive AI server market CAGR of 42% during 2022-32F. As such, the firm guides its cloud sales to grow over 15% YoY in 2024F, which is the main catalyst for sales growth guidance of 5-15% YoY in 2024F. However, as computing and consumer electronics sales will be flat YoY in 2024F, we expect total 2024F sales to grow by 7% YoY. With a better product mix, on cloud and component sales weightings increasing to 25% and 7%, respectively in 2024F, we revise up our gross and operating margin forecasts to 6.5% and 3.1%, respectively. The firm aims to provide total solutions for AI business, with modules, baseboards, key components like power supplies and thermal solutions, system/ rack assemblies and software integration, and thus we expect double-digit gross margin on related sales. Hon Hai will continue expanding the semiconductor and components businesses to realize EV opportunities, and create sales growth in the coming years. Our 2024F EPS is raised to NT\$12.16, up 19% YoY, and NT\$15.09, up 24% YoY, for 2025F.

Valuation & Action

We raise our target price from NT\$126 to NT\$164, 16x 2024F EPS of NT\$6.1 from cloud & component sales, and 11x NT\$6.1 from other segments. Maintain Outperform on a low valuation, good cash yield and decent earnings growth.

Risks

Slow EV orders and component development; weakening global demand.

Key financials and valuations

	Dec-21A	Dec-22A	Dec-23F	Dec-24F	Dec-25F
Revenue (NT\$mn)	5,994,174	6,626,997	6,162,221	6,585,051	7,284,589
Gross profit (NT\$mn)	362,127	400,085	387,947	429,138	488,093
Operating profit (NT\$mn)	148,959	173,788	166,528	201,115	250,681
Net profit (NT\$mn)	139,320	141,483	142,098	168,549	209,189
EPS (NT\$)	10.05	10.21	10.25	12.16	15.09
Cash DPS (NT\$)	5.20	5.30	5.40	6.41	7.95
EPS growth (%)	36.9	1.6	0.4	18.6	24.1
PE (x)	12.0	11.9	11.8	10.0	8.0
PB (x)	1.2	1.2	1.1	1.1	1.0
EV/EBITDA (x)	5.4	5.2	3.2	2.5	1.9
Net debt to equity (%)	Net cash	Net cash	Net cash	Net cash	Net cash
Dividend yield (%)	4.3	4.4	4.5	5.3	6.6
Return on average equity (%)	10.4	10.0	9.6	10.8	12.7

Source: Company data, KGI Research estimates

Figure 1: Breakdown of 4Q23 results & 4Q23 forecasts vs. consensus

NT\$m	4Q23								1Q24F							
	Actual	KGI forecast	Diff. (%)	QoQ (%)	YoY (%)	Consensus	Diff. (%)	Revision	Previous	Chg. (%)	QoQ (%)	YoY (%)	Consensus	Diff. (%)		
Sales	1,852,072	1,736,820	6.6	20.0	(5.7)	1,825,545	1.5	1,412,423	1,465,591	(3.6)	(23.7)	(3.4)	1,412,786	(0.0)		
Gross profits	113,282	100,736	12.5	10.2	2.0	116,159	(2.5)	84,745	87,935	(3.6)	(25.2)	(4.1)	87,861	(3.5)		
Operating income	48,930	43,421	12.7	6.0	10.6	51,736	(5.4)	36,723	38,105	(3.6)	(24.9)	(9.4)	37,041	(0.9)		
Pretax Income	66,898	49,036	36.4	16.9	27.5	59,644	12.2	43,178	44,827	(3.7)	(35.5)	111.6	43,002	0.4		
Net income	53,145	39,916	33.1	23.2	32.9	43,807	21.3	32,430	33,749	(3.9)	(39.0)	152.9	30,847	5.1		
EPS (NT\$)	3.83	2.88	33.1	23.2	32.9	3.16	21.3	2.34	2.43	(3.9)	(39.0)	152.8	2.23	5.1		
Gross margin (%)	6.1	5.8	0.3 ppts	(0.5)ppts	0.5 ppts	6.4	(0.2)ppts	6.0	6.0	0.0 ppts	(0.1)ppts	(0.0)ppts	6.2	(0.2)ppts		
OP margin (%)	2.6	2.5	0.1 ppts	(0.3)ppts	0.4 ppts	2.8	(0.2)ppts	2.6	2.6	0.0 ppts	(0.0)ppts	(0.2)ppts	2.6	(0.0)ppts		
Net margin (%)	2.9	2.3	0.6 ppts	0.1 ppts	0.8 ppts	2.4	0.5 ppts	2.3	2.3	(0.0)ppts	(0.6)ppts	1.4 ppts	2.2	0.1 ppts		

Source: Company data, Bloomberg, KGI Research

Figure 2: Breakdown of 2023 results and 2024-25 forecast revisions vs. consensus

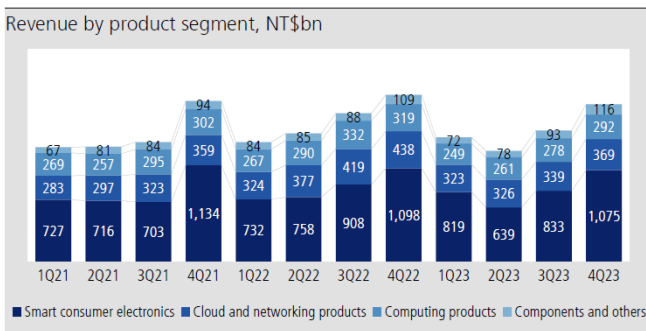
NT\$m	2023				2024F				2025F									
	Actual	KGI forecast	Diff. (%)	YoY (%)	Consensus	Diff. (%)	Revision	Previous	Chg. (%)	YoY (%)	Consensus	Diff. (%)	Revision	Previous	Chg. (%)	YoY (%)	Consensus	Diff. (%)
Sales	6,162,221	6,046,619	1.9	(7.0)	6,141,153	0.3	6,585,051	6,311,395	4.3	6.9	6,423,072	2.5	7,284,589	6,898,071	5.6	10.6	6,777,360	7.5
Gross profit	387,947	365,216	6.2	(3.0)	390,639	(0.7)	429,138	388,592	10.4	10.6	411,783	4.2	488,093	441,477	10.6	13.7	450,830	8.3
Operating income	166,528	151,896	9.6	(4.2)	168,003	(0.9)	201,115	171,499	17.3	20.8	181,787	10.6	250,681	213,840	17.2	24.6	207,055	21.1
Pretax Income	192,224	161,948	18.7	2.5	183,469	4.8	226,936	198,387	14.4	18.1	207,399	9.4	277,736	242,635	14.5	22.4	233,586	18.9
Net income	142,098	118,559	19.9	0.4	132,634	7.1	168,549	144,123	16.9	18.6	151,352	11.4	209,189	179,167	16.8	24.1	171,409	22.0
EPS (NT\$)	10.25	8.55	19.9	0.4	9.57	7.1	12.16	10.40	16.9	18.6	10.92	11.4	15.09	12.92	16.8	24.1	12.36	22.0
Gross margin (%)	6.3	6.0	0.3 ppts	0.3 ppts	6.4	(0.1)ppts	6.5	6.2	0.4 ppts	0.2 ppts	6.4	0.1 ppts	6.7	6.4	0.3 ppts	0.2 ppts	6.7	0.0 ppts
OP margin (%)	2.7	2.5	0.2 ppts	0.1 ppts	2.7	(0.0)ppts	3.1	2.7	0.3 ppts	0.4 ppts	2.8	0.2 ppts	3.4	3.1	0.3 ppts	0.4 ppts	3.1	0.4 ppts
Net margin (%)	2.3	2.0	0.3 ppts	0.2 ppts	2.2	0.1 ppts	2.6	2.3	0.3 ppts	0.3 ppts	2.4	0.2 ppts	2.9	2.6	0.3 ppts	0.3 ppts	2.5	0.3 ppts

Source: Company data, Bloomberg, KGI Research estimates

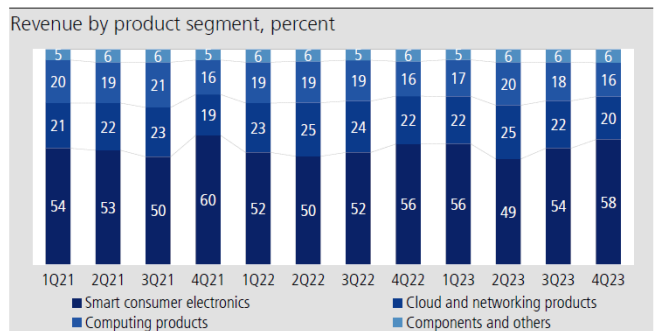
Figure 3: Product mix

Sales (NT\$b)	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	2020	2021	2022	2023	2024F
Smart consumer electronics	727	715	703	1,135	732	758	908	1,098	819	639	833	1,075	2,593	3,280	3,496	3,366	3,308
Cloud & networking	283	296	323	364	324	377	419	438	323	326	339	369	1,316	1,267	1,557	1,358	1,660
Computing	263	259	295	296	267	290	332	319	249	261	278	292	1,136	1,114	1,208	1,079	1,146
Components & others	74	81	84	94	84	85	87	109	72	78	93	116	313	334	365	359	471
Total	1,347	1,351	1,406	1,890	1,408	1,510	1,747	1,963	1,462	1,305	1,543	1,852	5,358	5,994	6,627	6,162	6,585
Weighting (%)	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	2020	2021	2022	2023	2024F
Smart consumer electronics	54	53	50	60	52	50	52	56	56	49	54	58	48	55	53	54	50
Cloud & networking	21	22	23	19	23	25	24	22	22	25	22	20	25	21	24	22	25
Computing	20	19	21	16	19	19	19	16	17	20	18	16	21	19	18	18	17
Components & others	5	6	6	5	6	6	5	6	5	6	6	6	6	6	6	6	7
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
YoY (%)	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	2020	2021	2022	2023	2024F
Smart consumer electronics	86	76	33	(10)	1	6	29	(3)	12	(16)	(8)	(2)	(2)	27	7	(4)	(2)
Cloud & networking	11	(13)	(11)	1	14	27	29	20	(0)	(14)	(19)	(16)	5	(4)	23	(13)	22
Computing	19	(15)	(5)	(2)	2	12	13	8	(7)	(10)	(16)	(8)	2	(2)	8	(11)	6
Components & others	17	3	(7)	18	14	4	4	15	(15)	(7)	6	7	(3)	7	9	(2)	31
Total	45	20	9	(6)	4	12	24	4	4	(14)	(12)	(6)	0	12	11	(7)	7
QoQ (%)	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	2020	2021	2022	2023	2024F
Smart consumer electronics	(43)	(2)	(2)	61	(36)	4	20	21	(25)	(22)	30	29					
Cloud & networking	(22)	5	9	13	(11)	17	11	5	(26)	1	4	9					
Computing	(13)	(1)	14	0	(10)	8	15	(4)	(22)	5	6	5					
Components & others	(8)	10	4	12	(11)	0	3	25	(34)	9	18	25					
Total	(33)	0	4	34	(26)	7	16	12	(26)	(11)	18	20					

Source: Company data, KGI Research estimates



Figure 4: Revenue mix by product


Source: Company data, KGI Research

Figure 5: Revenue mix by product


Source: Company data, KGI Research

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

Company	Announcement	JV ownership	Details
 	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 platform development for smart cockpit.
	May-21	50% FIH Mobile 50% Stellantis	4) Software R&D including AI, navigation, voice assistance, and payment systems. 5) Targets self-designed IC chips adopted in Stellantis vehicles by 2024.
	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.
	Jan-21	50% Hon Hai 50% Geely	JV may provide assembly service for Faraday Future.
	Feb-21	N.A.	1) Hon Hai will work with Fisker in Project PEAR, targeting mass production of another EV model in 4Q23. 2) Hon Hai announced in May 2021 it would establish an EV production site in the US with Fisker. 3) PEAR project for Fisker will be produced at Lordstown's plant in Ohio.
	May-21	60% PTT Group 40% Hon Hai	1) Signed Memorandum of Understanding (MoU) and founded JV to provide EV production platform in Thailand with investment of US\$1-2bn. 2) Targets mass production with annual EV capacity of 50k in 2023-2024. 3) Planned annual EV capacity is 150k.
	Jun-21	N.A.	Signed MoU to work on EV battery exchange.
	Jul-21	N.A.	1) Foxtron signed MoU to work on EV bus. 2) Expects to operate in southern Taiwan in 2022.
	Sep-21	N.A.	1) Hon Hai reached an agreement with Lordstown to cooperate in electric pickup truck production. 2) Hon Hai will purchase Lordstown's Ohio plant and equipment for US\$230mn. 3) Targets mass production of Endurance full-size pickup and revenue contribution in 2H22. 4) 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. 5) Hon Hai will purchase Lordstown's shares for US\$67.85mn. 6) Maximum annual capacity of 500-600k.
	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.
	May-22	55% Hon Hai	1) Hon Hai completed OEM manufacturing agreement, signed JV development agreement, and formally acquired Lordstown factory. 2) Hon Hai will invest US\$55mn in the JV and hold 55% of shares. 3) Lordstown Motors will become Hon Hai's first mass-production commercial vehicle customer and start to produce electric pickups in Ohio in 2H22.
	Aug-22	N.A.	1) Hon Hai signed contract manufacturing agreement (CMA) with Monarch Tractor to build next-generation agricultural equipment and battery packs at Foxconn Ohio facility. 2) Foxconn's first CMA following closing of Asset Purchase Agreement (APA). 3) Scheduled to begin full-rate production of Monarch Tractor's MK-V Series in 1Q23 at Foxconn Ohio (~6.2mn square feet).
	Sep-22		1) 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.. 2) The establishment of FIM is a continuation of the MoU signed in Jan. 2022 by Indika, Foxconn, and others. 3) FIM will conduct manufacturing business for commercial electric vehicles and electric batteries, as well as providing management consultation service.
	Oct-22		1) Hon Hai announced the signing of MOU with INDIEV to manufacture the first INDI One prototype vehicles at Foxconn Ohio. 2) This MOU is the newest EV manufacturing opportunity confirmed for Foxconn after completing the Asset Purchase Agreement ("APA"). 3) Potential collaboration will be disclosed at a later date as both sides remain in negotiation.
	Nov-22		1) Public Investment Fund (PIF) announced the launch of Ceer, a joint venture between PIF and Foxconn. 2) Ceer is the first EV brand in Saudi Arabia and will license component technology from BMW. 3) Ceer will attract over US\$150mn of foreign direct investment, projected to directly contribute US\$8 bn to Saudi Arabia's GDP by 2034.
	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 partnerships with key EV component manufacturers

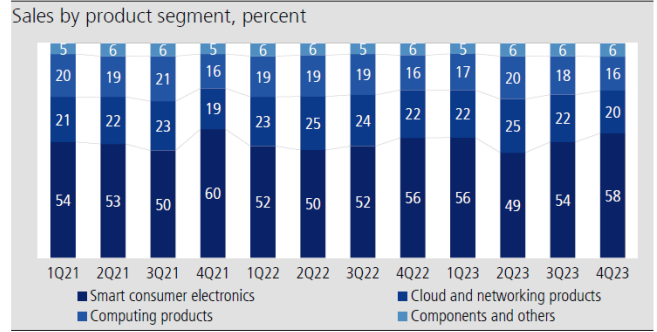
Company	Announcement	JV ownership	Product	Details
	May-21	N.A.	Small IC (power and analog)	1) JV Xsemi will focus on ASP < US\$2 small IC (power and analog). 2) Xsemi will be headquartered in Hsinchu, mainly for small IC sales and channel development.
	Jun-21	N.A.	Battery material	1) Hon Hai invested 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.
	Sep-21	N.A.	Battery material	1) On September 28, 2021, Hon Hai signed MoU with Giga Solar, Long Time, and CSCC to develop negative electrode battery material. 2) Targets release of first power battery for E-bus in 2023.
	Jul-21	N.A.	Battery material	1) Hon Hai participated in SES (Solid Energy Systems) private placement. 2) Expects to develop high-energy density battery for EV.
	Jul-21	N.A.	EV drive system Traction motor system	1) On March 18, 2021, Foxtron signed MoU with Nidec to develop EV drive system. 2) JV will be founded and headquartered in Taiwan in 2022. 3) Hon Hai, Foxtron and Nidec will use JV for production and sale of traction motor systems.
	Jan-22	N.A.	Battery cells, module and pack EV and E-scooter Energy storage systems	1) Signed MoU to work on EV battery, EV, E-scooter and energy storage systems with PT. Industri Baterai Indonesia (IBC), Indika and Gogoro. 2) Will cooperate with Indonesia government to mine Nickel for LFP battery. 3) Indonesia government expects overall investment to reach US\$8bn, and production revenue to arrive at US\$100bn in 2030.
	Feb-22	Vedanta 60% Hon Hai 40%	Semiconductor	1) Signed MoU to found JV to work on semiconductor. 2) Will produce in India to meet India's domestic production policy. 3) Will invest US\$7-8bn in phase 1, designed monthly capacity is 60k wpm for 28nm. 4) Targets 30-35% market share in India. 5) Plans to start construction by end-2022, complete in 2024-25, and mass production 6-8 months after.
	Feb-22	N.A.	Metaverse	1) Signed MoU to work on hardware and software vertical integration to create holistic Metaverse ecosystem. 2) Focused on AR/VR, 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 Hai signed MoU with Shinfox Energy's subsidiary, Fu Wei Power, for green power procurement. 2) Hon Hai purchased 2.36 million units of green power this year and expects to purchase 70 million units by 2030.
	Apr-22	100%	RF semiconductor	1) Hon Hai completed acquisition of arQana's wireless department, which will merge with AchernaTek Inc. to form new company iCana. 2) Becoming global RF semiconductor component supplier to strengthen product development for 5G Sub-6 and millimeter wave. 3) Expanding internet vehicles and electric vehicles market.
	May-22	Hon Hai 5.03%	Semiconductor	1) Hon Hai subsidiary, Big Innovation Holdings Limited (BIH), signed MoU with DNeX Group. 2) Constructing 12-inch wafer fab in Malaysia with monthly capacity of 40K wafers, mainly in 28 and 40 nanometers. 3) Targets production of power components, radio frequency components, and CMOS image sensor products.
	May-22	49% Yageo 51% Hon Hai	Semiconductor	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.
	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.
	Jul-22			1) Hon Hai signed MoU with NXP to jointly develop platforms for new generation of smart connected vehicles. 2) Hon Hai will integrate NXP's S32 family of processors into its EV platform. 3) Hon Hai and NXP outlined more than 10 automotive products for first stage.
	Sep-22		Semiconductor	1) Hon Hai and Vedanta signed MoU with Government of Gujarat to invest US\$19.5bn to set up semiconductor and display production plants in Gujarat. 2) Hon Hai will act as a technical partner in the deal, which will be financed by Vedanta. 3) Hon Hai and Vedanta will work closely with the state government to establish high-tech clusters with the requisite infrastructure.
	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.
	May-23		Semiconductor	1) Infineon and Hon Hai sign MoU to partner on SiC collaboration in EV development. 2) 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. 3) A system application center in Taiwan is expected to be established in 2023 to further expand the scope of their cooperation.
	Jun-23	50% Hon Hai 50% Stellantis	Semiconductor	1) Stellantis 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.
	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.
	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.
	Sep-23	N.A.	Solid-state battery ecosystem for the electric two-wheeler market.	1) Blue Solutions has signed a memorandum of understanding (M.O.U.) with Foxconn, the agreement is to jointly develop a solid-state battery ecosystem for electric two-wheeler market. 2) This collaboration will initially target at the Indonesian market. 3) According to McKinsey's estimates, the global two-wheeled vehicle market will be worth about \$218 billion in 2029, with a CAGR of 8.7%.

Source: Company data, KGI Research

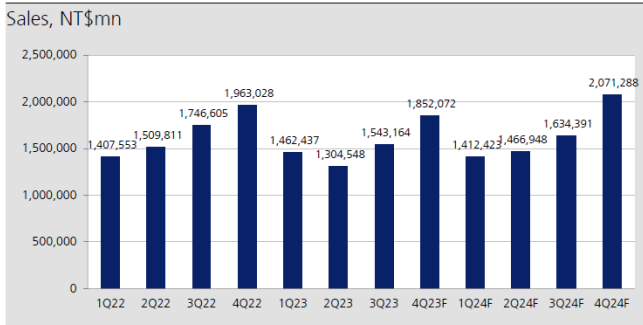
Figure 8: Company profile

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

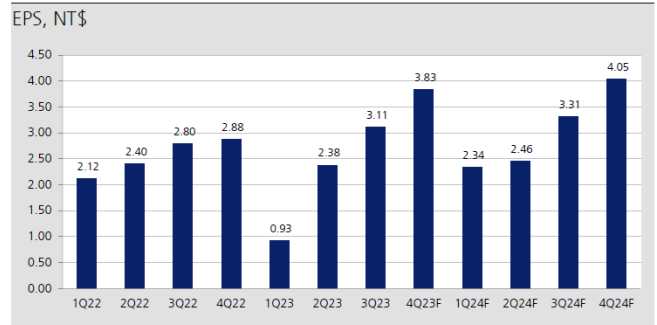
Source: Company data, KGI Research

Figure 9: Sales by segment


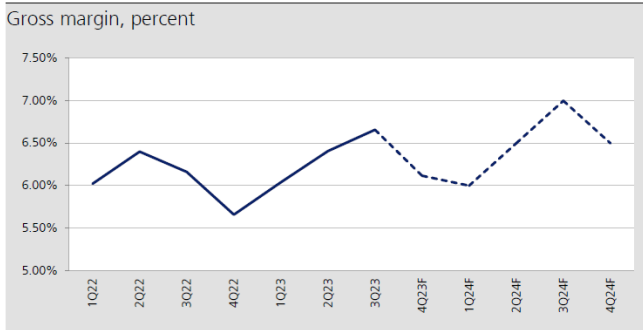
Source: Company data, KGI Research

Figure 10: Sales


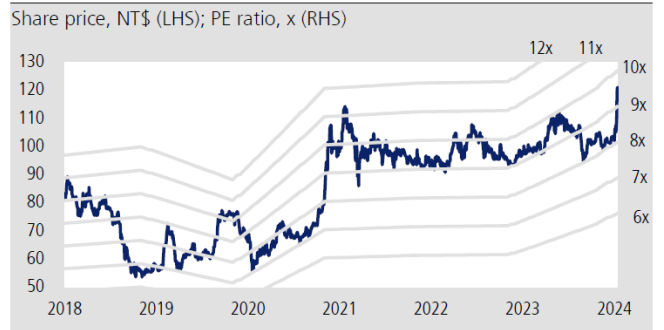
Source: KGI Research

Figure 11: EPS


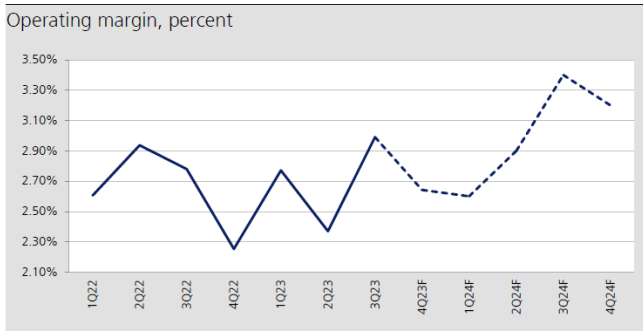
Source: KGI Research

Figure 12: Gross Margin


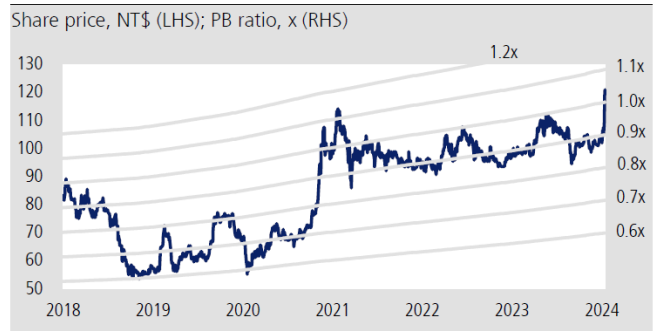
Source: KGI Research

Figure 13: 12M forward PE band


Source: TEJ; KGI Research estimates

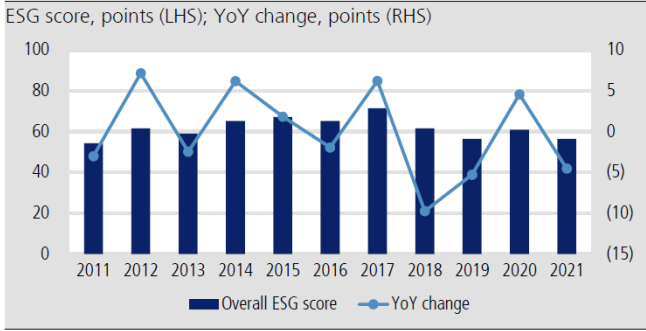
Figure 14: Operating Margin


Source: KGI Research

Figure 15: 12M forward PB band


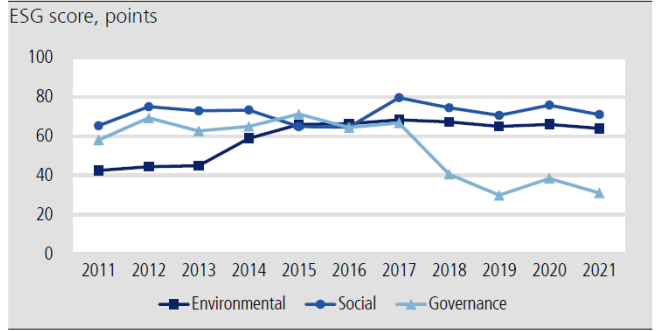
Source: TEJ; KGI Research estimates

Figure 16: Overall ESG score



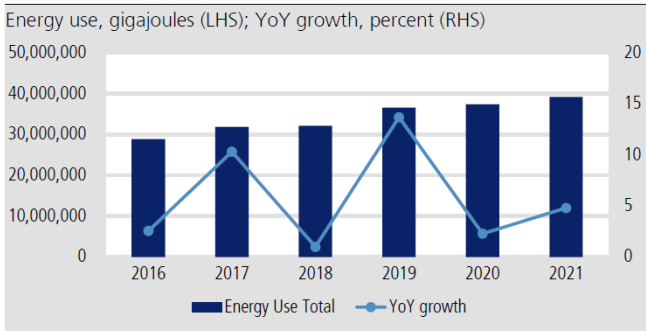
Source: Refinitiv, Company data

Figure 17: ESG score



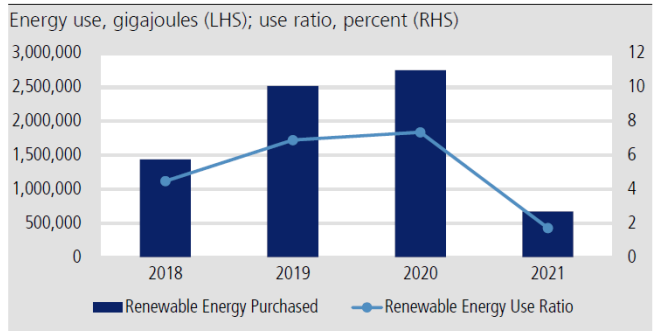
Source: Refinitiv, Company data

Figure 18: Energy use



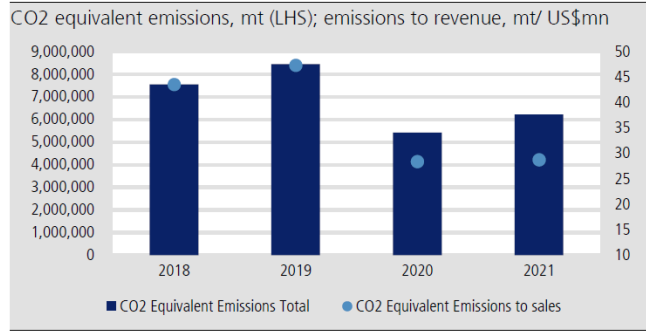
Source: Refinitiv, Company data

Figure 19: Renewable energy



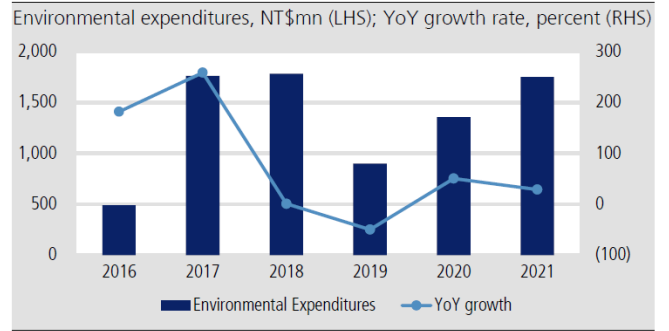
Source: Refinitiv, Company data

Figure 20: CO2 equivalent emissions



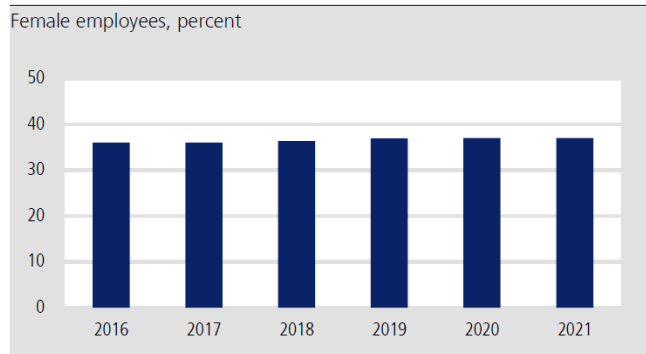
Source: Refinitiv, Company data

Figure 21: Environmental expenditures



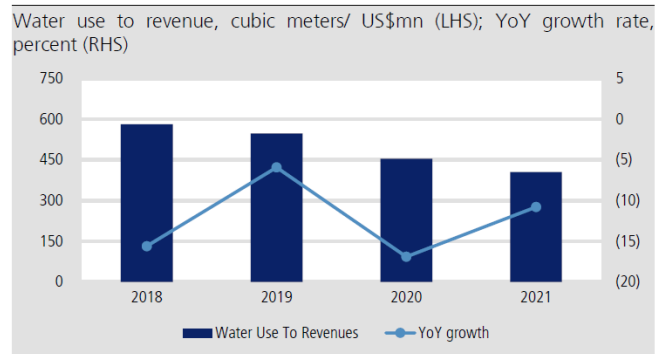
Source: Refinitiv, Company data

Figure 22: Gender diversification



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\$m) - 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	
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, then we consider the percentage of middle women managers - percentage of women managers = number of women managers/total number of managers*100	
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, emergency response, skills & career development training) - if the value is given in days, multiply by 8, assuming that 1 day = 8 hours worked	
Training hours per employee	Training hours per employee per year	

Source: Refinitiv; KGI Research

Income statement

	Quarterly								Annually		
	Mar-23A	Jun-23A	Sep-23A	Dec-23F	Mar-24F	Jun-24F	Sep-24F	Dec-24F	Dec-23F	Dec-24F	Dec-25F
Income statement (NT\$mn)											
Revenue	1,462,437	1,304,548	1,543,164	1,852,072	1,412,423	1,466,948	1,634,391	2,071,288	6,162,221	6,585,051	7,284,589
Cost of goods sold	(1,374,103)	(1,220,971)	(1,440,410)	(1,738,790)	(1,327,678)	(1,371,597)	(1,519,984)	(1,936,654)	(5,774,274)	(6,155,913)	(6,796,496)
Gross profit	88,334	83,577	102,753	113,282	84,745	95,352	114,407	134,634	387,947	429,138	488,093
Operating expenses	(47,811)	(52,652)	(56,604)	(64,352)	(48,022)	(52,810)	(58,838)	(68,353)	(221,419)	(228,023)	(237,412)
Operating profit	40,523	30,925	46,150	48,930	36,723	42,542	55,569	66,281	166,528	201,115	250,681
Depreciation of fixed assets	(18,039)	(19,746)	(20,828)	(111,122)	(47,401)	(47,401)	(47,401)	(47,401)	(169,735)	(189,604)	(208,447)
Amortisation of intangible assets	(1,502)	(1,429)	(1,574)	(1,419)	(1,481)	(1,481)	(1,481)	(1,481)	(5,924)	(5,924)	(5,924)
EBITDA	60,064	52,101	68,552	161,472	85,605	91,424	104,451	115,163	342,188	396,643	465,052
Interest income	16,530	22,572	20,869	21,000	18,638	18,638	18,638	18,638	80,970	74,551	71,366
Investment income	356	1,269	2,835	2,000	2,750	2,750	2,750	2,750	6,460	11,000	11,000
Other non-op income	1,032	9,744	5,111	8,837	500	500	500	500	24,725	2,000	2,000
Non-operating income	17,918	33,585	28,815	31,837	21,888	21,888	21,888	21,888	112,155	87,551	84,366
Interest expense	(14,752)	(16,805)	(17,747)	(13,869)	(14,183)	(14,183)	(14,183)	(14,183)	(63,174)	(56,731)	(52,311)
Investment loss	(18,952)	-	-	-	-	-	-	-	(18,952)	-	-
Other non-op expenses	(4,334)	-	-	-	(1,250)	(1,250)	(1,250)	(1,250)	(4,334)	(5,000)	(5,000)
Non-operating expenses	(38,038)	(16,805)	(17,747)	(13,869)	(15,433)	(15,433)	(15,433)	(15,433)	(86,460)	(61,731)	(57,311)
Pre-tax profit	20,403	47,705	57,217	66,898	43,178	48,997	62,024	72,736	192,224	226,936	277,736
Current taxation	(6,804)	(12,262)	(9,727)	(8,641)	(8,636)	(12,249)	(12,405)	(12,097)	(37,435)	(45,387)	(55,547)
Minorities	(775)	(2,443)	(4,362)	(5,112)	(2,113)	(2,600)	(3,738)	(4,550)	(12,691)	(13,000)	(13,000)
Normalised net profit	12,825	33,001	43,128	53,145	32,430	34,148	45,882	56,089	142,098	168,549	209,189
Extraordinary items	(0)	(0)	(0)	-	-	-	-	-	-	-	-
Net profit	12,825	33,001	43,128	53,145	32,430	34,148	45,882	56,089	142,098	168,549	209,189
EPS (NT\$)	0.93	2.38	3.11	3.83	2.34	2.46	3.31	4.05	10.25	12.16	15.09
Margins (%)											
Gross profit margin	6.0	6.4	6.7	6.1	6.0	6.5	7.0	6.5	6.3	6.5	6.7
Operating margin	2.8	2.4	3.0	2.6	2.6	2.9	3.4	3.2	2.7	3.1	3.4
EBITDA margin	4.1	4.0	4.4	8.7	6.1	6.2	6.4	5.6	5.6	6.0	6.4
Pretax profit margin	1.4	3.7	3.7	3.6	3.1	3.3	3.8	3.5	3.1	3.4	3.8
Net profit margin	0.9	2.5	2.8	2.9	2.3	2.3	2.8	2.7	2.3	2.6	2.9
Margins (%)											
Gross profit margin	6.0	6.4	6.7	6.1	6.0	6.5	7.0	6.5	6.3	6.5	6.7
Operating margin	2.8	2.4	3.0	2.6	2.6	2.9	3.4	3.2	2.7	3.1	3.4
EBITDA margin	4.1	4.0	4.4	8.7	6.1	6.2	6.4	5.6	5.6	6.0	6.4
Pretax profit margin	1.4	3.7	3.7	3.6	3.1	3.3	3.8	3.5	3.1	3.4	3.8
Net profit margin	0.9	2.5	2.8	2.9	2.3	2.3	2.8	2.7	2.3	2.6	2.9
Sequential growth (%)											
Revenue growth	(25.5)	(10.8)	18.3	20.0	(23.7)	3.9	11.4	26.7			
Gross profit growth	(20.5)	(5.4)	22.9	10.2	(25.2)	12.5	20.0	17.7			
Operating profit growth	(8.4)	(23.7)	49.2	6.0	(24.9)	15.8	30.6	19.3			
EBITDA growth	(8.5)	(13.3)	31.6	135.5	(47.0)	6.8	14.2	10.3			
Pretax profit growth	(61.1)	133.8	19.9	16.9	(35.5)	13.5	26.6	17.3			
Net profit growth	(67.9)	157.3	30.7	23.2	(39.0)	5.3	34.4	22.2			
YoY growth (%)											
Revenue growth	3.9	(13.6)	(11.6)	(5.7)	(3.4)	12.4	5.9	11.8	(7.0)	6.9	10.6
Gross profit growth	4.2	(13.5)	(4.5)	2.0	(4.1)	14.1	11.3	18.8	(3.0)	10.6	13.7
Operating profit growth	10.5	(30.2)	(4.9)	10.6	(9.4)	37.6	20.4	35.5	(4.2)	20.8	24.6
EBITDA growth	11.1	(22.7)	8.5	145.9	42.5	75.5	52.4	(28.7)	36.7	15.9	17.2
Pretax profit growth	(44.7)	1.6	11.8	27.5	111.6	2.7	8.4	8.7	2.5	18.1	22.4
Net profit growth	(56.5)	(0.9)	11.3	32.9	152.9	3.5	6.4	5.5	0.4	18.6	24.1

Source: Company data, KGI Research estimates

Balance sheet

NT\$m	Dec-21A	Dec-22A	Dec-23F	Dec-24F	Dec-25F
Total assets	3,908,878	4,133,974	4,075,355	4,217,175	4,438,558
Current assets	3,034,417	3,200,506	3,185,908	3,355,403	3,643,017
Cash & ST securities	1,110,661	1,084,732	1,215,447	1,262,809	1,332,327
Inventory	672,145	939,022	870,764	925,779	1,024,916
Accounts receivable	1,161,219	1,098,690	1,021,635	1,088,753	1,207,712
Other current assets	90,393	78,062	78,062	78,062	78,062
Non-current assets	874,461	933,469	889,447	861,772	795,542
LT investments	429,600	435,825	449,839	496,767	538,984
Net fixed assets	310,107	362,405	304,369	229,765	121,318
Other assets	134,754	135,239	135,239	135,239	135,239
Total liabilities	2,335,618	2,483,443	2,344,895	2,393,961	2,503,360
Current liabilities	1,997,680	2,113,814	2,024,744	2,044,813	2,148,741
Accounts payable	1,076,178	1,068,941	991,239	1,053,866	1,166,718
Interest bearing ST liabilities	608,958	647,194	634,441	577,948	547,614
Other current liabilities	312,544	397,678	399,065	412,999	434,409
Non-current liabilities	337,938	369,630	320,151	349,148	354,619
Long-term debt	275,600	301,017	251,538	280,536	286,006
Other L-T liabilities	44,121	51,151	51,151	51,151	51,151
Total equity	1,573,260	1,650,531	1,730,460	1,823,214	1,935,198
Share capital	138,630	138,630	138,630	138,630	138,630
Retained earnings reserve	871,193	925,890	993,128	1,072,882	1,171,866
Minority interests	192,803	199,986	212,677	225,677	238,677
Preferred shareholders funds	-	-	-	-	-

Key ratios

	Dec-21A	Dec-22A	Dec-23F	Dec-24F	Dec-25F
Growth					
Revenue growth	11.9%	10.6%	(7.0%)	6.9%	10.6%
Operating profit growth	34.4%	16.7%	(4.2%)	20.8%	24.6%
EBITDA growth	27.6%	11.5%	36.7%	15.9%	17.2%
Net profit growth	36.9%	1.6%	0.4%	18.6%	24.1%
EPS growth	36.9%	1.6%	0.4%	18.6%	24.1%
Profitability					
Gross profit margin	6.0%	6.0%	6.3%	6.5%	6.7%
Operating margin	2.5%	2.6%	2.7%	3.1%	3.4%
EBITDA margin	3.7%	3.8%	5.6%	6.0%	6.4%
Net profit margin	2.3%	2.1%	2.3%	2.6%	2.9%
Return on average assets	3.7%	3.5%	3.5%	4.1%	4.8%
Return on average equity	10.4%	10.0%	9.6%	10.8%	12.7%
Stability					
Gross debt to equity	56.2%	57.4%	51.2%	47.1%	43.1%
Net debt to equity	Net cash	Net cash	Net cash	Net cash	Net cash
Interest coverage (x)	9.8	6.4	4.0	5.0	6.3
Interest & ST debt coverage (x)	0.2	0.2	0.2	0.2	0.3
Cash flow interest coverage (x)	(4.5)	3.2	6.3	5.2	5.9
Cash flow/int. & ST debt (x)	(0.2)	0.2	0.6	0.5	0.5
Current ratio (x)	1.5	1.5	1.6	1.6	1.7
Quick ratio (x)	1.2	1.1	1.1	1.2	1.2
Net debt (NT\$m)	(174,860)	(114,115)	(307,063)	(381,921)	(476,302)
Per share data					
EPS (NT\$)	10.05	10.21	10.25	12.16	15.09
CFPS (NT\$)	(7.09)	7.91	28.70	21.18	22.17
BVPS (NT\$)	99.58	104.63	109.48	115.24	122.38
Adj BVPS (NT\$)	99.59	104.65	109.48	115.24	122.38
SPS (NT\$)	432.43	478.09	444.51	475.01	525.47
EBITDA/share (NT\$)	16.19	18.05	24.68	28.61	33.55
Cash DPS (NT\$)	5.20	5.30	5.40	6.41	7.95
Activity					
Sales / avg assets	1.58	1.65	1.50	1.59	1.68
Days receivable	70.7	60.5	60.5	60.5	60.5
Days inventory	43.6	55.0	55.0	55.0	55.0
Days payable	69.7	62.7	62.7	62.7	62.7
Cash cycle	44.5	52.9	52.9	52.9	52.9

Source: Company data, KGI Research estimates

Profit & loss

NT\$m	Dec-21A	Dec-22A	Dec-23F	Dec-24F	Dec-25F
Revenue	5,994,174	6,626,997	6,162,221	6,585,051	7,284,589
Cost of goods sold	(5,632,047)	(6,226,912)	(5,774,274)	(6,155,913)	(6,796,496)
Gross profit	362,127	400,085	387,947	429,138	488,093
Operating expenses	(213,168)	(226,297)	(221,419)	(228,023)	(237,412)
Operating profit	148,959	173,788	166,528	201,115	250,681
Non-operating income	66,044	64,268	112,155	87,551	84,366
Interest income	32,456	43,303	80,970	74,551	71,366
Investment income	28,660	11,063	6,460	11,000	11,000
Other non-op income	4,928	9,902	24,725	2,000	2,000
Non-operating expenses	(21,432)	(50,544)	(86,460)	(61,731)	(57,311)
Interest expense	(21,958)	(34,736)	(63,174)	(56,731)	(52,311)
Investment loss	-	-	(18,952)	-	-
Other non-op expenses	527	(15,808)	(4,334)	(5,000)	(5,000)
Pre-tax profit	193,572	187,511	192,224	226,936	277,736
Current taxation	(39,749)	(36,440)	(37,435)	(45,387)	(55,547)
Minorities	(14,503)	(9,589)	(12,691)	(13,000)	(13,000)
Extraordinary items	-	0	(0)	-	-
Net profit	139,320	141,483	142,098	168,549	209,189
EBITDA	224,441	250,248	342,188	396,643	465,052
EPS (NT\$)	10.05	10.21	10.25	12.16	15.09

Cash flow

NT\$m	Dec-21A	Dec-22A	Dec-23F	Dec-24F	Dec-25F
Operations cash flow	(98,212)	109,708	397,861	293,570	307,317
Net profit	139,320	141,483	142,098	168,549	209,189
Depreciation & amortisation	75,481	76,460	175,659	195,528	214,372
Decrease in working capital	(302,448)	(197,434)	67,611	(59,506)	(105,243)
Other operating cash flow	(10,565)	89,199	12,492	(11,000)	(11,000)
Investing cash flow	(92,083)	(45,440)	(144,130)	(156,853)	(137,141)
Sale of ST investment	(31,480)	29,944	-	-	-
New investments	(7,662)	(45,351)	(26,506)	(35,928)	(31,217)
Capital expenditure	(92,296)	(97,935)	(111,700)	(115,000)	(100,000)
Others investing cashflow	39,355	67,902	(5,924)	(5,924)	(5,924)
Free cash flow	(206,247)	(84,746)	259,744	175,990	203,749
Financing cash flow	24,281	(87,872)	(123,015)	(89,355)	(100,659)
Increase in short term debt	99,435	23,682	(80,000)	(40,000)	(40,000)
Increase in long term loans	28,293	7,242	17,767	12,505	15,136
New ordinary shares issued	5,000	(7,763)	-	-	-
Ordinary dividends paid	(58,745)	(79,026)	(73,474)	(74,860)	(88,795)
Other financing cashflow	(49,702)	(32,006)	12,691	13,000	13,000
Forex effects	(7,363)	26,512	-	-	-
Total cash generated	(173,377)	2,909	130,716	47,362	69,517

ROIC

	Dec-21A	Dec-22A	Dec-23F	Dec-24F	Dec-25F
1 - COGS/revenue					
- Operating exp./revenue	3.6%	3.4%	3.6%	3.5%	3.3%
= Operating margin	2.5%	2.6%	2.7%	3.1%	3.4%
1 / (Working capital/revenue	0.1	0.1	0.1	0.1	0.1
+ Net PPE/revenue	0.1	0.1	0.0	0.0	0.0
+ Other assets/revenue)	0.0	0.0	0.0	0.0	0.0
= Capital turnover	6.9	6.4	6.8	7.5	8.5
Operating margin	2.5%	2.6%	2.7%	3.1%	3.4%
x Capital turnover	6.9	6.4	6.8	7.5	8.5
x (1 - tax rate)	79.5%	80.6%	80.5%	80.0%	80.0%
= After-tax ROIC	13.5%	13.5%	14.7%	18.2%	23.4%

Source: Company data, KGI Research estimates

Hon Hai – Recommendation & target price history


Date	Rating	Target	Price
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
2023-03-16	Outperform	117.0	102.0
2023-03-02	Outperform	117.0	102.5
2022-12-06	Outperform	117.0	103.0
2022-11-11	Outperform	117.0	100.0
2022-10-23	Outperform	123.0	103.5

Source: TEJ, KGI Research

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