

SMALL/MID CAP HIGHLIGHTS

SenseTime Group Inc (20 HK)

Revolutionising Industries With Rapid Iteration

SenseTime is a leading AI software company with a focus on computer vision technologies, serving a broad range of industries. It recorded full-year revenue of Rmb3.8b in 2022, making it the largest computer vision software provider in China with a 20.7% market share, according to IDC. Net loss narrowed 65% yoy to Rmb6b. At the WAIC 2023, SenseTime showcased the upgrade and applications of its SenseNova foundation model in various industries.

WHAT'S NEW

Key takeaways from SenseTime SenseNova AI conference at WAIC:

- Dr. Xu Li, Chairman and CEO of SenseTime Group Inc (SenseTime), emphasised the breakthrough of big models and the subsequent explosive growth in industry demand. Symbolising the concept of "updating model iteration speed and problem-solving capabilities on a daily basis," SenseTime's big model system is undergoing rapid iterations to promote the advancement of AI infrastructure through its Artificial General Intelligence (AGI) strategic layout of "big models + powerful devices". The goal is to create more powerful foundational models with broad capabilities and integrate specialised knowledge from different verticals efficiently.

Key upgrades include:

- **SenseChat 2.0:** A Natural Language Processing (NLP) model. The accuracy of knowledge and information, logical judgment abilities, contextual understanding abilities, and creativity, have been improved significantly, making it one of the best-performing Chinese linguistic foundation models at the moment. It offers different parameter levels to perfectly adapt to application requirements on mobile devices, cloud platforms, and other scenarios, thereby reducing deployment costs.
- **SenseMirage 3.0:** SenseTime's self-developed generative big model. It has seen its model parameters increase from 1b to 7b, enabling professional-grade rendering of image details.
- **SenseAvatar 2.0:** a digital human generation platform. It has improved speech and lip synchronisation by more than 30% compared to the previous version, achieving 4K high-definition video effects. In online short video and live-streaming platforms, the digital humans generated by SenseAvatar 2.0 are widely used.
- **SenseSpace 2.0** enhances spatial reconstruction efficiency by 20% and rendering performance by 50%. It can complete the mapping of a 100 sqm scene in just 38 hours (supported by 1200 TFLOPS/s computing power).
- **SenseThings 2.0** achieves millimetre-level precision in the texture and material restoration of small objects, overcoming challenges in capturing highly reflective and mirrored objects.

KEY FINANCIALS

Year to 31 Dec (Rmbm)	2018	2019	2020	2021	2022
Net turnover	1,853	3,027	3,446	4,700	3,809
EBITDA	-141	-1,216	-1,650	-3,204	-5,107
Operating profit	-300	-1,594	-2,219	-3,862	-6,075
Net profit (rep./act.)	-3,428	-4,963	-12,158	-17,140	-6,045
Net profit (adj.)	-3,428	-4,963	-12,158	-17,140	-6,045
EPS (sen)	-39.0	-56.0	-133.0	-174.0	-19.0
PE (x)	-19.3	-13.5	-5.7	-4.3	-39.7
P/B (x)	-12.9	-7.1	-3.7	7.9	8.7
EV/EBITDA (x)	-	-	-	-	-
Dividend yield (%)	-	-	-	-	0
Net margin (%)	-184.9	-164.0	-352.8	-364.7	-158.7
Net debt/(cash) to equity (%)	-	-	-	-62.5	-35.0
Interest cover (x)	-10.2	-10.6	-19.7	-117.9	-93.6
ROE (%)	-	46.0	-	-	-20.9

Source: SenseTime, Bloomberg, UOB Kay Hian

NOT RATED

Share Price	HK\$1.89
Target Price	n.a.
Upside	n.a.

COMPANY DESCRIPTION

Develops AI software products, computer vision software products and other products in China.

STOCK DATA

GICS sector	Software
Bloomberg ticker:	20 HK
Shares issued (m):	25,948.8
Market cap (HK\$m):	62,586.0
Market cap (US\$m):	-
3-mth avg daily t'over (US\$m):	101.7

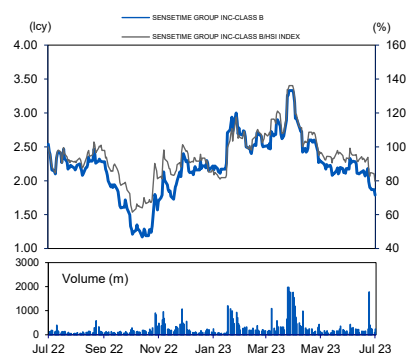
Price Performance (%)

52-week high/low	HK\$3.70/HK\$1.11			
3mth	6mth	3mth	6mth	YTD
(14.2)	(43.8)	(15.4)	(27.5)	(15.8)

Major Shareholders

	%
Sensetalent Mgmt Ltd	13.98
SVF Sense Pte Ltd	13.95
Alibaba Group Holding Ltd	5.91
FY22 NAV/Share (RM)	1.12
FY22 Net Debt/Share (RM)	-0.37

PRICE CHART



Source: Bloomberg

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ESSENTIALS

- **Fostering upgrades across various sectors by integrating multimodal capabilities.** Combining the comprehensive capabilities of SenseChat 2.0 and SenseMirage 3.0, SenseTime provides various intelligent interactive solutions for mobile device users, including question-and-answer interactions for information retrieval, knowledge interactions for daily life scenarios, and content interactions for language and image generation. With the lightweight versions of SenseTime's big models, these solutions can be easily deployed and run on mobile devices. In addition, SenseTime launched The Three-Body Problem: Beyond Gravity, an immersive experience space based on the award-winning sci-fi novel by Liu Cixin. This futuristic sci-fi journey is a testament to SenseTime's ability to break through the boundaries of imagination using its large model capabilities.
- **Development across various industries:** a) **Finance.** SenseTime collaborates with financial institutions to provide intelligent customer service and smart marketing using digital humans. They integrate large language models to offer functionalities like investment research analysis, b) **Healthcare.** SenseTime's Da Yi big model enables conversations for medical guidance and decision-making which enables multiple-scenario, multi-turn conversations for medical guidance, consultation, health advice, and assisted decision-making, c) **Autonomous driving.** In the field of smart vehicles, SenseTime's intelligent cabin, autonomous driving, and vehicle-road collaboration applications have reached innovative boundaries, bolstered by large models. SenseTime's "cabin brain" enables personalised interactions through customisable digital humans, offering an intelligent cabin experience that integrates safety, entertainment, education, and efficiency.
- **Empowered by the LLM+AI Infrastructure's capabilities.** By leveraging on the powerful capabilities of "big models + powerful devices," SenseAuto enables on-device and cloud collaboration, unifying traffic entry and supporting private deployment to meet the demands of millions of applications. Based on UniAD, SenseTime is building a collaborative traffic system between vehicles and roads, developing road-side visual perception big models using multimodal and multitask universal big models. The combination of SenseSpace 2.0 and SenseThings 2.0 helps to create intelligent traffic twins and simulations. SenseChat 2.0's perception, reasoning, and human-machine interaction capabilities helps to promote the evolution of collaborative vehicle-road-cloud interaction towards big model-driven dialogue.
- **A quick glance and implications of 2022's financials.** SenseTime's 2022 revenue experienced a 19% yoy decline to Rmb3.8b, mainly dragged by the adverse impact from the COVID-19 pandemic. Among its segments, the smart life segment revenue experienced a remarkable improvement of 130% yoy, followed by a 59% surge in the smart auto segment, resulting in a shift of growth catalysts. However, the smart business and smart city segments saw declines in revenue of 25% and 49% yoy, respectively, primarily halted by the pandemic. Gross profit margin came in at 67% in 2022 (vs 70% in 2021).

EARNINGS REVISION/RISK

Catalyst:

- a) Increasing market share through continuous AI adoption, and b) monetisation upon the downstream implementation of LLM.

Risk:

- a) Increased competition in the AI business, b) restrictions on chips supply from the US which will lower capex efficiency.

PROFIT & LOSS

Year to 31 Dec (Rmbm)	2019	2020	2021	2022
Net turnover	3,027	3,446	4,700	3,809
EBITDA	-1,216	-1,650	-3,204	-5,107
Deprec. & amort.	-378	-570	-658	-968
EBIT	-1,594	-2,219	-3,862	-6,075
Total other non-operating income	3,693	10,153	13,381	440
Associate contributions	3	6	40	2
Net interest income/(expense)	-116	-59	-141	-184
Pre-tax profit	-5,173	-12,319	-17,142	-6,333
Tax	-205	-161	36	-240
Minorities	-5	-0	-37	-48
Net profit	-4,963	-12,158	-17,140	-6,045
Net profit (adj.)	-4,963	-12,158	-17,140	-6,045

CASH FLOW

Year to 31 Dec (Rmbm)	2019	2020	2021	2022
Operating	-2,789	-1,135	-2,382	-2,925
Pre-tax profit	-5,173	-12,319	-17,142	-6,333
Tax	205	161	-36	240
Deprec. & amort.	-378	-570	-658	-968
Associates	3	6	40	2
Working capital changes	768	10,528	3,385	-7,088
Other operating cashflows	3,972	11,743	16,126	2,433
Investing	-2,187	-10,684	-4,099	8,788
Capex (growth)	-1,833	-7,305	-1,685	-9,517
Investments	-777	-1,277	-1,073	-4,890
Proceeds from sale of assets	-	-	-	-
Others	-1,056	-6,028	-612	-4,627
Financing	4,068	13,195	9,169	3,876
Issue of shares	-	-	4,687	86
Loan repayment	-514	1,352	-310	2,843
Others/interest paid	1,355	6,923	3,936	-2,131
Net cash inflow (outflow)	-554	4,755	5,102	-8,567
Beginning cash & cash equivalent	7,227	6,673	11,428	16,530
Changes due to forex impact	171	-131	-243	487
Ending cash & cash equivalent	6,673	11,428	16,530	7,963

BALANCE SHEET

Year to 31 Dec (Rmbm)	2019	2020	2021	2022
Fixed assets	2,298	2,242	3,341	7,314
Other LT assets	517	772	1,208	1,912
Cash/ST investment	1,103	5,044	11,538	14,447
Other current assets	17,129	26,682	16,546	7,077
Total assets	23,948	38,479	36,944	37,427
ST debt	3,357	594	0	321
Other current liabilities	3,499	9,229	2,795	3,002
LT debt	27,401	48,895	1,641	4,408
Other LT liabilities	345	694	521	682
Shareholders' equity	-10,790	-21,068	31,893	28,970
Minority interest	136	136	95	44
Total liabilities & equity	23,948	38,479	36,944	37,427

KEY METRICS

Year to 31 Dec (%)	2019	2020	2021	2022
Profitability				
EBITDA margin	56.8	70.6	69.7	66.8
Pre-tax margin	-170.9	-357.5	-364.7	-166.3
Net margin	-164.0	-352.8	-364.7	-158.7
ROA	-20.7	-39.0	-45.5	-16.2
ROE	46.0	-	-	-20.9
Growth				
Turnover	63.3	13.9	36.4	-19.0
EBITDA	764.2	35.7	94.2	59.4
Pre-tax profit	136.7	50.9	15.5	47.1
Net profit	14.7	175.0	31.8	-96.7
Net profit (adj.)	14.7	175.0	31.8	-96.7
EPS	-56.0	-133.0	-174.0	-19.0
Leverage				
Debt to total capital	152.7	168.5	5.3	14.5
Debt to equity	-	-	5.6	16.9
Net debt/(cash) to equity	-	-	-62.5	-35.0
Interest cover (x)	-10.6	-19.7	-117.9	-93.6

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