Momenta Global (6880 HK)

Data Flywheel Leader At A Profit Inflection Point

Highlights

- Initiate coverage on Momenta with BUY and a target price of HK$270.00.
- Momenta is the largest independent provider of driving-automation software globally, with 64.5% of vehicles sold with an independent urban navigation-on-autopilot system as at 28 Feb 26, and a data flywheel of more than 1m vehicles returning about 630,000 clips a day.
- Cumulative nominations totalling 219 at mid-26 (of which 105 are already at SOP) underpin our revenue forecasts of Rmb4b/Rmb11.3b/Rmb21.6b for 2026/28/30 respectively, representing a 55% five-year CAGR.
- The shift to licensing lifted blended gross margin from 17.5% in 2023 to 71.6% in 2025. We expect adjusted net loss to narrow to Rmb170m/Rmb25m in 2026/27 respectively, before turning profitable at Rmb864m in 2028 and growing to Rmb3.8b in 2030.

Analysis

- **The number one independent player.** Momenta Global (Momenta) held 65.4% of the 249 cumulative start-of-production (SOP) programmes and nominations among independent urban navigation-on-autopilot (NOA) providers globally as at 28 Feb 26, against 14.5% for Huawei, and serves 26 OEM customers, 13 of them international. Its fleet has accumulated 1,628m km of NOA driving data, about 1.8 times that of the next-largest independent provider, and returns about 630,000 clips a day.
- **Customers are also shareholders.** General Motors Company holds 8.58% of the enlarged share capital and Mercedes-Benz 6.13%, and each has nominated a non-executive director. Models run from the electric Mercedes-Benz CLA and BMW iX3 to Toyota's bZ5 and BYD's Denza range.
- **Licensing drives margin expansion.** Licensing revenue rose from 3.1% of total revenue in 2023 to 40.1% in 2025, and we expect it to reach 44.1%/50.4% by 2028/30 respectively. The number of installations could rise from 510,000 to 2.91m/6.85m in 2028/30 respectively (68% five-year CAGR), more than offsetting a 5% volume discount.
- **Robotaxi and robovan services offer upside optionality.** The L4 fleet could grow from 31 vehicles as at end-25 to 11,000/78,000 by end-27/30, contributing 2.1%/16.6% of 2027/30 revenue. Momenta is seeking the retail subscription model for urban NOA, which our forecasts have not factored in.
- **Initiate coverage with a target price of HK$270.00, based on 10-year DCF** (WACC: 15%/terminal growth: 3%). Our target price implies 7.7x 2027F PS.
- **Risks:** Customer concentration, data-flywheel erosion, ship/system-on-chip supply, GPU purchases, licensing fee deflation, robotaxi timing/regulation.

Key Financials

Year to 31 Dec (Rmbm)	2024	2025	2026F	2027F	2028F
Net turnover	1,325	2,413	4,009	7,017	11,344
EBITDA	(3,094)	(3,366)	(16,890)	(659)	72
Operating profit	(3,258)	(3,485)	(16,961)	(737)	(17)
Net profit (rep./act.)	(3,206)	(3,458)	(16,900)	(587)	127
Net profit (adj.)	(959)	(303)	(170)	(25)	864
EPS (Fen)	(444.9)	(140.4)	(72.1)	(10.7)	366.9
PE (x)	n.m.	n.m.	n.m.	n.m.	34.0
P/B (x)	n.m.	n.m.	1.8	1.8	1.7
EV/EBITDA (x)	n.m.	n.m.	n.m.	n.m.	379.0
Dividend yield (%)	-	-	-	-	-
Net margin (%)	(242.0)	(143.3)	(421.6)	(8.4)	1.1
Net debt/(cash) to equity (%)	n.m.	n.m.	(39.7)	(38.1)	(39.1)
Interest cover (x)	n.m.	n.m.	n.m.	n.m.	n.m.
ROE (%)	n.m.	n.m.	n.m.	(3.5)	0.7
Consensus net profit	-	-	(453)	(142)	935
UOBKH/Consensus (x)	-	-	n.m.	n.m.	0.92

Source: Momenta, Bloomberg, UOB Kay Hian

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BUY

Share Price	HK$146.00
Target Price	HK$270.00
Upside	+84.9%

Stock Data

Sector	Consumer discretionary
Bloomberg ticker	6880 HK
Shares issued (m)	235.5
Market cap (HK$m)	34,388.5
Market cap (US$m)	4,437.2
3-mth avg daily t'over (US$m)	3.4

Price Performance (%)

52-week high/low				HK$314.80/HK$131.20
1mth	**3mth**	**6mth**	**1yr**	**YTD**
(0.9)	(38.6)	n.a.	n.a.	n.a.

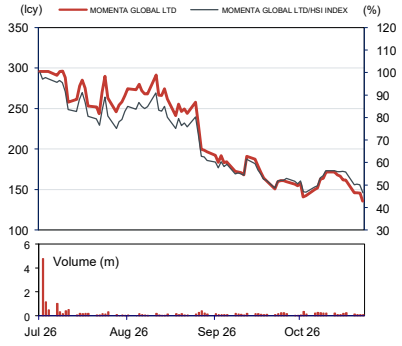
Major Shareholders (%)

Mr Cao Xudong	13.8
ZJSmart Holdings	8.7

Balance Sheet Metrics

FY26 NAV/Share (HK$)	82.58
FY26 Net Debt/Share (HK$)	32.76

Price Chart



Source: Bloomberg

Company Description

Momenta Global develops and licenses driving-automation software to carmakers, and licenses its L4 system to robotaxi and robovan fleet operators.

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This report uses the closing prices of 27 Oct 26

Investment Highlights

- **The world's largest independent driving-automation provider…** Momenta develops and licenses driving-automation software to carmakers. By both vehicle models in production and installed base, it is the largest independent provider globally.
  - Excluding OEM-affiliated programmes (Huawei's HIMA, Geely's G-ASD), fully in-house stacks (Tesla, XPeng, Li Auto, NIO) and platform-integrated players (Horizon Robotics), Momenta held 65.4% of the 249 cumulative SOP programmes and nominations globally as of 28 Feb 26, and 64.5% of the 833,000 vehicles sold with such systems, vs 14.5%/18.0% for Huawei Technologies Co's (Huawei) HI mode, the next-largest competitor.
  - On a broader third-party basis that includes HIMA and G-ASD (both mainly serve their affiliated brands) but still excludes Tesla, Inc (Tesla) and other fully in-house OEM stacks, Yiche's 1H26 ranking puts Momenta third at 18.3%, behind Huawei's models (25.5%) and G-ASD (24.2%). On urban NOA, Momenta ranks second at 23.4%, behind Huawei (33.7%).
  - On the widest all-in basis, D1EV's 1H26 insurance-registration count places Momenta third by urban-NOA units at 11.8%, behind Huawei (17.9%) and Tesla (13.3%).

  Momenta serves 26 active OEM customers, 13 of them international, covering eight of the world's top 10 OEM groups and nine of China's top 10. Its solutions were installed in over 680,000 vehicles as at end-25 and passed 1m by 30 Jun 26, with 510,000/321,000 added in 2025/1H26 respectively.

The number one independent driving-automation provider globally, with 64.5% of independent urban NOA vehicle sales.

- **…with a self-reinforcing data flywheel as the core moat.** Its "one flywheel, two legs" strategy trains a single model on data from mass-produced cars, deploying it across driver assistance and Level 4 driving-automation (L4) robotaxis. The installed base returns 630,000 clips daily, with 1,628m km of NOA data – 1.8x that of the next-largest independent provider. This scale, built on 219 nominations across 26 OEMs, is hard to replicate – nominations take 2-3 years to convert. The flywheel is sustainable as data scale, platform breadth and OEM equity ties raise switching costs.

  Unlike Huawei, which competes with its OEM customers, Momenta is independent, serving 26 OEM customers. Its chip-agnostic software runs on four system-on-chip (SoC) platforms with 10 domain-controller partners, so its advantage lies in algorithms and data, not XHEART silicon.

  The architecture has evolved from R6, a reinforcement learning large model serving L2/L2+, to R7, a world model built to L4 standards and supporting L2+ through L4; R8 is the next iterative reinforcement learning model and R9 the next-generation world model paired with X9 chips. Performance confirms the edge: a) <1 autonomous emergency braking (AEB) false positive per million km, vs <3 for the four closest independent peers; and b) success rates above 99% at roundabouts and above 95% on U-turns and lane changes.

The flywheel returns 630,000 clips a day, so every extra car sold makes the model better than peers'.

- **Seven key customers are shareholders, of which three have board representation, …** SAIC Motor (SAIC), General Motors Company (GM) and Mercedes-Benz respectively hold stakes of 8.65%, 8.58% and 6.13% with a representative each on the board of directors. Mercedes-Benz first invested in 2017, and Toyota Motor Corporation (Toyota) in 2020, while SAIC, GM and BYD Company (BYD) began collaborating in 2021, and Chery Automobile Co (Chery) and Hyundai Motor Company (Hyundai) became shareholders in 2025.

  The payoff is a model portfolio including the electric Mercedes-Benz CLA, BMW iX3, Audi E5 Sportback, Toyota's bZ5, and BYD's Denza and Yangwang. Equity alignment matters because a driving-automation supplier is designed in a vehicle platform years before production, and switching costs rise with every programme won.

  European shareholders and regulatory approvals, including Germany-wide L4 testing, have helped overcome national security concerns. With localised data processing and EU compliance, any remaining regulatory risk should be the cost of doing business, not barrier to growth. On 24 Sep 26, Momenta

Strategic investments by global auto OEMs facilitate Momenta's overseas expansion.

signed a global strategic cooperation agreement with Dongfeng Stellantis Automotive Technology (Wuhan) Co (DSAT) on the joint development of advanced driver assistance systems (ADAS) for all-new models from Peugeot and Jeep for global markets.

- **…and order-book visibility for technical development services is robust.** Cumulative nominations totalled 219 (>90% for urban NOA) at mid-26, of which 105 were at SOP (>80% for urban NOA). We forecast 488/706 by end-28/30 respectively, with SOP counts of 323/510. Backlog stood at 34 projects worth Rmb2,800m as at end-25, and we expect 62/79 projects worth Rmb5.6b/Rmb7.4b by end-28/30 respectively. The remaining performance obligations due within one year spiked 91% yoy to Rmb1,103m as at end-25. The number of active OEM customers could grow from 24/26 at end-25/mid-26 to 37/43 in 2028/30 respectively and revenue per active customer from Rmb101m to Rmb307m/Rmb502m. On that base, we forecast a total revenue of Rmb11.3b/Rmb21.6b in 2028/30 (55% five-year CAGR).

219 nominations and 105 SOPs at mid-26 support a 55% revenue CAGR in 2026-30.

- **Licensing is the profit engine.** Momenta charges technical development service fees for integrating and validating a solution for a specific vehicle platform, recognised as work progresses, and a licensing fee for every vehicle produced with that solution. Licensing gross margin is about 90%, much higher than the approximately 60% for technical development services, as the software is already written, and it rose from 3.1% of revenue in 2023 to 40.1% in 2025; blended gross margin expanded from 17.5% to 71.6% in the same two years. We expect licensing revenue to grow at a five-year CAGR of 62%to Rmb5.0b/10.9b by 2028/30 respectively, taking its share of revenue to 44.1%/50.4% and blended gross margin to 72.8%/76.3%. The fee per vehicle could fall from Rmb1,898 in 2025 to Rmb1,720/Rmb1,590 by 2028/30 respectively, but volume is the key growth driver: new installations could rise from 510,000 in 2025 to 2.91m/6.85m in 2028/30 respectively, lifting Momenta's share of global NOA-equipped vehicle sales from 6.4% to 13.4%/17.0%.

Licensing at a 90% gross margin lifted blended gross margin from 17.5% to 71.6% in 2023-25.

- **Robotaxi and robovan services start to earn income in 2026.** Momenta's robotaxi fleet reached 31 vehicles as at end-25 and it targets 100/1,000 robotaxis by end-26/27. We expect the number to grow to 46,000 by end-30. Additionally, Momenta plans to have 1,000/10,000 robovans by end-26/27 respectively, and we expect the number to reach 32,000 by end-30. Management's intended long-term structure is a three-way revenue share rather than a per-vehicle licence: Momenta provides the AI driver and runs the technology-side back office, the OEM builds the vehicle and maintains it, and a ride-hailing platform such as Uber or Grab supplies the demand, with all three parties sharing the fare.

  We retain a monthly fee of Rmb4,000 per robotaxi in 2027 and Rmb6,000 in 2030, and Rmb1,800 per robovan in 2027 rising to Rmb2,000 in 2028. We anticipate robotaxi and robovan revenue growing at a three-year CAGR of 191% from Rmb145m (2.1% of total) in 2027 to Rmb3,576m (16.6% of total) in 2030. The benefit of Momenta's asset-light approach shows up in its unit costs of Rmb1.21 of operating cost and Rmb0.25 of vehicle cost per km, against Rmb1.26/Rmb0.38 for Pony.ai Inc (Pony.ai) and Rmb2.00/Rmb0.44 for WeRide Inc (WeRide) respectively. Momenta holds permits in Suzhou, Shanghai, Wuxi and Abu Dhabi. In Jul 26 it became the first Chinese company to obtain a Germany-wide L4 testing permit, and began whitelist testing on Uber's platform there in Sep 26.

Robotaxi and robovan services are projected to add Rmb1,139m of revenue, 10.0% of the total, by 2028.

- **An L3 subscription would change the revenue model, which is not in our numbers.** Momenta's fees are today agreed upfront with the OEM for a given programme and are not linked to how often an end user switches a function on. The company holds six L3 nominations and expects the first L3 vehicle, the SAIC Audi E7X, to reach production in 2H27. It told us in Sep 26 that the charging model is still under discussion with OEMs – either a one-off licence fee priced above L2++, or an end-user subscription – and that it is watching how Tesla prices its Full Self-Driving FSD subscription in China against the US$99 a month it charges in North America. That turns a single per-vehicle payment into recurring revenue across the lifespan of a vehicle.

The L3 subscription model under OEM discussion is excluded from our forecasts; first Momenta L3 production is set for 2H27.

Purely as an illustration, a Rmb100 monthly fee taken up by 10% of our forecast 2028 installed base of 6.19m vehicles would add about Rmb740m of revenue at close to a software gross margin. We include none of it in our forecasts, so it is a potential upside.

- **Momenta-affiliated chip company XHEART develops specialised ADAS SoCs alongside Momenta, strengthening its competitive position.** Momenta's ADAS solution can run not only on third-party chips such as Nvidia Orin/Thor but also on the BMC 7X chip of its affiliate XHEART (Suzhou) Technology Co (XHEART). XHEART was spun off from Momenta's chip project into an independent company, in which Momenta founder Cao Xudong and other core members indirectly hold a 43.76% stake.

  XHEART's X7 chip is co-designed with Momenta's algorithms, strengthening Momenta's cost-performance position and software-hardware flywheel. The X7 uses a 7nm process and delivers 320 TOPS, and it compares favourably with Nvidia's Orin X. It is priced at US$100 vs US$300 for Orin X (254 TOPS) and US$500 for Horizon Robotics' Journey 6P (500 TOPS). Its per domain-controller cost is Rmb3,000, less than half of Orin's Rmb7,000. The X7 is also pin-compatible with Qualcomm 8650. With Momenta's algorithms, it runs 10x more parameters.

  Its integrated ASIL-D MCU is not unique – Horizon Robotics, Texas Instruments and Qualcomm Incorporated offer similar features – but X7's is co-designed with Momenta's model. XHEART is developing X9 (3,000 TOPS, 3nm), targeting 100B-parameter models paired with Momenta's R9 world model, which is critical to sustaining the software-hardware flywheel. For Momenta, the chip is a differentiated hardware anchor.

  The X7 reached vehicles in Apr 26, with deployment in the SAIC Volkswagen ID.ERA 9X, MG 07, Cadillac XT5 and Roewe Jiayue 07, and management expects 300,000 units to ship in 2026 across more than 30 nominations (out of 219 nominations) at over 10 OEMs (out of 26 active OEM customers).

Figure 1: XHEART BMC X7 Vs Peers

	XHEART BMC X7	Nvidia Orin-X	Huawei Ascend 610	Horizon Journey 6P
Process node	7nm	8nm	7nm	5nm
AI compute (TOPS)	320	254	200-400	560
Power consumption	n.a.	45W	n.a.	n.a.
Cost	US$100	US$300	Bundled with HIMA licensing model; not sold separately	US$500
Key features	Big model chip (BMC); designed for large-model end-to-end AD; pin-compatible with Qualcomm 8650; AEC-Q100 certified	Mature ecosystem; widely adopted; supports multi-chip scaling	Scalable multi-chip architecture; integrated ISP; used in Huawei MDC platform	End-to-end large model support; BEV/ transformer capable; urban NOA
Key customers/ models	SAIC VW ID.ERA 9X; SAIC MG 07 (with Momenta R7)	NIO, Li Auto, XPeng; widely adopted across OEMs	AITO M5/M7/M9; Avatr; Luxeed S7	Chery Exeed
2026 availability status	Mass production	Mature	Mass production	Mass production
Positioning	Cost-competitive Orin alternative for Momenta ecosystem	Premium incumbent; broad ecosystem	Integrated HW+SW solution for Huawei ecosystem	Cost-performance challenger to Orin-X

Source: UOB Kay Hian

Valuation/Recommendation

Momenta's shares have fallen over 50% since IPO, from an intraday high of HK$314.80 on 8 July to HK$146.00 currently. The de-rating is attributable to:

- **BYD, a top-five customer, pushing for a huge cut in the per-vehicle licensing fee, which Momenta rejected;** while the rejection is rational as licensing is the core profit driver, the episode has crystallised fears over pricing power and the sustainability of the 90% licensing gross margin;
- **Slower-than-expected progress in robotaxi revenue growth,** with management guiding robotaxi deployment by 4Q26 vs earlier market expectations of 2H26;
- **The "physical AI" narrative lacking near-term revenue proof points, leaving the stock exposed to sentiment shifts; and**
- **The stabilisation period ending on 2 August,** when the stabilisation agent ceased purchases and the over-allotment option lapsed unexercised.

We believe these concerns have been fully priced in, and the impacts have come to an end.

- The BYD negotiation, while a sentiment shock, did not result in order cancellations; the JV remains operational, and Momenta's 13 international OEM customers and over 75% share of vehicles priced above Rmb250,000 dilute BYD's influence.
- The robotaxi deployment delay from 2H26 to 4Q26 is a timing shift, not a cancellation, and robovans are commercialising faster with a lower regulatory bar.
- The physical AI narrative will gain near-term proof points from the SAIC Audi E7X L3 SOP in 2H27 and the 1,000-vehicle robotaxi fleet target by end-27.
- The end of the stabilisation period is a technical event that removes a supply overhang, not a fundamental change.

Figure 2: Sensitivity Analysis Of DCF-based Target Price

	----------WACC----------		
Terminal growth	14%	15%	16%
4%	321	284	254
3%	302	270	243
2%	286	258	234

Source: UOB Kay Hian

Momenta trades at a discount to peers on both price-to-sales (PS) and price-to-gross profit (PG). Momenta is trading at 4.2x 2027F PS and 5.8x 2027 PG, a discount to the peer average of 4.7x/13.9x respectively. We think PG is the fairer comparison because Momenta's 72.8% gross margin in 2027 is far above the 20-64% range of its peers.

Initiate coverage with a BUY rating and target price of HK$270.00, based on 10-year DCF (WACC: 15%, terminal growth: 3%). The target price implies 7.7x 2027F PS, 10.6x 2027F PG and 3.3x 2027F PB. Our sensitivity analysis gives a fair-value range of HK$234-321 (WACC: 14-16%, terminal growth: 2-4%).

Figure 3: Peer Comparison

Company	Ticker	Last Price 27 Oct 26	Market Cap (US$m)	PE 2026F (x)	PE 2027F (x)	PE 2028F (x)	PS 2026F (x)	PS 2027F (x)	PS 2028F (x)	Price / Gross Profit 2026F (x)	Price / Gross Profit 2027F (x)	Price / Gross Profit 2028F (x)	PB 2026F (x)	ROE 2026F (x)
Momenta Global	6880 HK	146.000	4,437	Loss	Loss	34.0	7.3	4.2	2.6	10.1	5.8	3.6	1.8	n.m.
Peers														
Pony.ai Inc	PONY US	5.070	2,198	Loss	Loss	123.1	13.5	5.7	2.6	77.4	28.7	11.9	1.5	(13.4)
WeRide Inc	800 HK	10.790	1,374	Loss	Loss	Loss	8.7	4.7	2.3	26.0	13.0	6.1	1.7	(25.3)
Horizon Robotics	9660 HK	3.605	7,384	Loss	Loss	Loss	9.1	5.8	3.8	14.4	9.6	6.3	3.1	(24.9)
Mobileye Global	MBLY US	6.870	5,841	13.7	13.6	10.0	2.9	2.7	2.2	4.4	4.2	3.5	0.7	4.4
Average				n.m.	n.m.	n.m.	8.6	4.7	2.7	30.5	13.9	6.9	1.7	(14.4)

Note: Consensus for peers is the vintage carried in the model.
Source: Respective companies, Visible Alpha, LSEG consensus, UOB Kay Hian

Figure 4: 10-Year DCF Model

Year to 31 Dec (Rmbm)	0 2025	1 2026F	2 2027F	3 2028F	4 2029F	5 2030F	6 2031F	7 2032F	8 2033F	9 2034F	10 2035F	Terminal value
Operating Cash Flow	(281)	(221)	(147)	671	1,427	3,011	4,516	6,323	8,220	10,686	13,891	
Capex + R&D expenditure	(91)	(100)	(125)	(150)	(175)	(200)	(240)	(289)	(346)	(416)	(499)	
Free Cash Flow	(372)	(321)	(272)	520	1,251	2,810	4,276	6,034	7,873	10,270	13,393	114,952
Discount Factor	1.00	0.87	0.76	0.66	0.57	0.50	0.43	0.38	0.33	0.28	0.25	
Discounted Cash Flow		(279)	(206)	342	715	1,397	1,849	2,268	2,574	2,919	3,310	

Sum of Discounted Cash Flow	14,890
Discounted Terminal Value	28,414
Net Cash / (Debt)	3,296
Financial assets	7,704
Fair Value	54,305
Share Outstanding (m)	236
Fair Value Per Share (HK$)	270
Implied 2027F P/S (x)	7.7
Implied 2027F P/GP (x)	10.6
Implied 2027F P/B (x)	3.3
WACC (%)	15.0
Terminal Growth Rate (%)	3.0

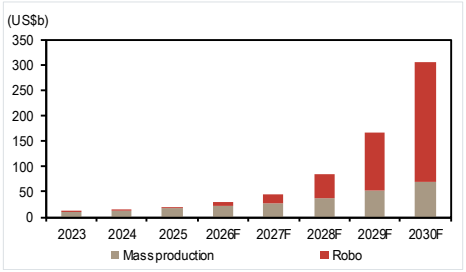
Source: UOB Kay Hian

Industry Overview

- **The market will quadruple by 2028.** The global market for L2 highway NOA, L2 urban NOA and higher levels of driving-automation is projected to grow from US$20.4b in 2025 to US$29.9b/US$44.9b/US$85.8b in 2026/27/28 respectively (61.5% three-year CAGR), and to reach US$305.9b by 2030 (71.9% five-year CAGR). Growth will be driven by two factors: more vehicles equipped, and a higher price for each level of capability.
- **The robo segment overtakes mass-production solutions in 2028.** Mass-production solutions driving automation, which is what Momenta sells to carmakers today, is forecasted to grow from US$16.5b in 2025 to US$38.5b in 2028 and US$70.3b in 2030 (33.6% five-year CAGR). The robo segment – comprising robotaxi and robovan services – is projected to grow from US$3.8b in 2025 to US$47.3b in 2028 and US$235.6b in 2030 (127.9% five-year CAGR), overtaking mass-production solutions in 2028. Momenta is one of the few companies positioned in both services, and it uses the same model for each.
- **China accounts for two-thirds of the market, but the rest of the world grows faster.** China made up US$13.0b of the US$20.4b global market in 2025 (63.9%), and we expect it to account for US$57.5b of the US$85.8b total in 2028 (67.0%). The rest of the world is anticipated to grow from US$7.3b in 2025 to US$28.3b in 2028 and then to US$139.3b by 2030 (80.1% five-year CAGR), as European, Japanese and Korean OEMs launch NOA-equipped platforms. Momenta already has 13 international OEM customers, which is where the higher fee per vehicle sits.
- **Urban NOA in China goes from one vehicle in nine to two in five.** China's 15th Five-Year Plan for Intelligent Connected New Energy Vehicle targets highly automated driving on highways and urban expressways by 2030, accelerating regulatory support and market growth. NOA-equipped vehicle sales in China are projected to rise from 6.8m units in 2025 to 9.9m/13.5m/18.3m units in 2026/27/28 respectively, and to 27.4m by 2030 (32.1% five-year CAGR). Urban NOA penetration is expected to climb from 11.3% of sales in 2025 to 21.5%/31.7%/41.9% in 2026/27/28 respectively, and 62.4% by 2030, while highway NOA will likely rise from 18.3% in 2025 to a peak of 21.7% in 2028 before falling to 18.8% by 2030 as urban NOA replaces it. L3 and above goes from nil to 4.4% in 2028 and 12.7% in 2030. Globally, NOA-equipped sales are projected to rise from 8.0m units in 2025 to 21.7m in 2028 and 40.3m in 2030 (38.2% five-year CAGR).
- **China's new L2 and L3/L4 ADAS standards accelerate adoption and consolidate the market.** In Jun-Jul 26, the Ministry of Industry and Information Technology (MIIT) issued mandatory national standards for L2 (effective Jan 27) and L3/L4 (effective Jul 27), removing regulatory uncertainty for higher automation. The L2 standard will likely push L2 penetration toward 100% by 2027, potentially lifting NOA-equipped vehicle sales above the 18.3m-units forecast for 2028. The L3/L4 standard removes a major barrier to robotaxi/robovan commercialisation, potentially accelerating the robo segment's already rapid five-year CAGR of 127.9%.

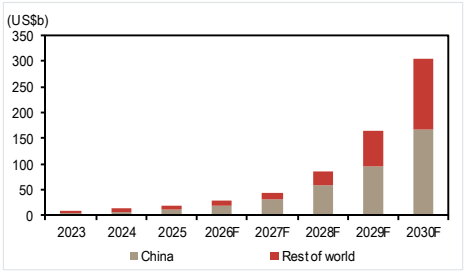
  Compliance mandates – eg driver monitoring system (DMS), event data recorder (EDR) and multi-tier testing – raise barriers, accelerating consolidation. As a consequence, smaller players with cost-cut hardware face elimination, while incumbents that helped draft the rules are advantaged. For Momenta, its dominant 65.4% share and broad platform coverage position it to benefit from consolidation, but the DMS/EDR and Safety Case requirements may raise short-term integration costs across its 26 OEM customers and four SoC platforms. Conversely, its established safety engineering and real-world validation data create a moat against newer entrants lacking comparable documentation. Overall, the standards reinforce Momenta's competitive edge while adding near-term compliance overheads.

Figure 5: ADAS Market By Segment



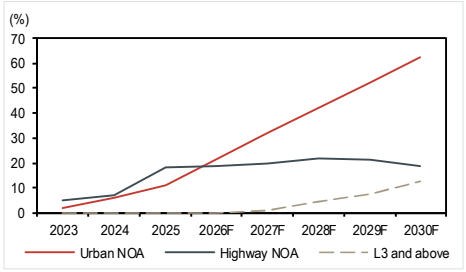
Source: Momenta, UOB Kay Hian

Figure 6: ADAS Market By Region



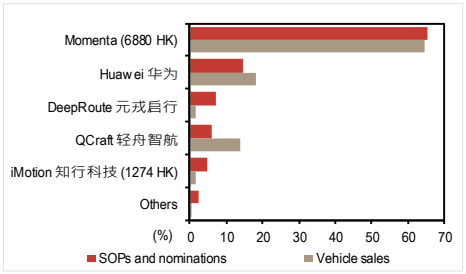
Source: Momenta, UOB Kay Hian

Figure 7: China: NOA Penetration



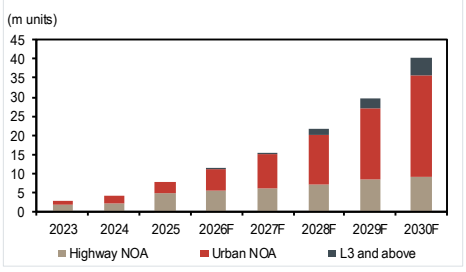
Source: Momenta, UOB Kay Hian

Figure 8: Urban NOA Provider Share



Source: Momenta, UOB Kay Hian

Figure 9: Global NOA Vehicle Sales



Source: Momenta, UOB Kay Hian

- **The independent segment is approaching a one-horse race.** Of the 249 cumulative SOP programmes and nominations held by independent urban NOA providers as at 28 Feb 26, Momenta held 163 of them, or 65.4%, ahead of Huawei with 36, Shenzhen Deeproute.ai Co (DeepRoute) with 18, Beijing Qingzhou Zhihang Intelligent Technology Co (QCraft) with 15 and iMotion Automotive Technology (Suzhou) Co (iMotion) with 12. Among the 100 programmes already in production, Momenta held 57. In volume terms, Momenta's systems were installed in 537,300 of the 833,000 vehicles sold with an independent urban NOA system, a 64.5% share, against 18.0% for Huawei and 13.8% for QCraft.
- **Breadth of platform coverage constitutes the second barrier to entry.** Momenta supports 24 OEM customers, compared with 12 for Huawei, nine for iMotion, six for DeepRoute and four for QCraft, and it does so across four SoC platforms and 10 domain-controller partners. That allows it to use whichever chip an OEM chooses and deploy the same software across everything from Rmb0.1m city cars to Rmb1.4m flagships, on combustion, hybrid and battery electric platforms. In contrast, a new entrant would need to rebuild that entire matrix before it could compete for a global programme.

Business And Earnings Outlook

We expect adjusted net loss to narrow from Rmb303m in 2025 to Rmb170m/Rmb25m in 2026/27 respectively, before Momenta turns profitable at Rmb864m in 2028 and grows to Rmb3.76b in 2030, as burgeoning revenue and rising gross margin lift gross profit above opex. Momenta's growth will be driven by the following structural tailwinds:

- **Urban NOA becomes standard equipment.** Urban NOA penetration in China is set to rise from 11.3% of vehicle sales in 2025 to 62.4% in 2030, with NOA-equipped sales increasing from 6.8m units to 27.4m. L3 and above equipment is expected to climb from nil to 12.7% of sales in 2030, supported by market-access pilots for conditionally automated vehicles. Importantly, L3 shifts liability to the manufacturer, which supports a higher fee per vehicle, though management expects OEMs to pass part of that liability back to the driving-automation supplier on terms that are still being negotiated.
- **OEMs are outsourcing rather than building in-house.** A competitive autonomy stack requires both a self-reinforcing data flywheel and a multi-billion-renminbi annual R&D budget, which is why eight of the world's top 10 OEM groups work with Momenta.
- **Overseas programmes carry higher fees.** Some 13 of Momenta's 26 active OEM customers are international ones, with the first overseas platforms including the Mercedes-Benz CLA, the BMW Neue Klasse iX3 and the Audi E5 Sportback. The company qualifies its software on four SoC platforms with 10 domain-controller partners, so falling silicon prices help keep a Rmb1,720 fee viable.
- **Robotaxi unit economics cross into profit.** Momenta reports Rmb1.21 of operating cost and Rmb0.25 of vehicle cost per km, against Rmb1.26/Rmb0.38 for Pony.ai and Rmb2.00/Rmb0.44 for WeRide respectively. Because it licenses rather than owns the fleet, scale flows to the income statement without requiring capex.

REVENUE

Total revenue. Revenue grew at a two-year CAGR of 80% from Rmb743m in 2023 to Rmb2,413m in 2025, and increased 76% yoy to Rmb1,602m in 1H26. We expect revenue to rise to Rmb4.01b (on par with management guidance)/ Rmb7.02b/Rmb11.34b/Rmb16.08b/Rmb21.60b in 2026/27/28/29/30 respectively, representing a five-year CAGR of 55% over 2026-30.

- **Technical development services** saw revenue grow at a two-year CAGR of 42% from Rmb719m in 2023 to Rmb1,445m in 2025, and rise 81.5% yoy to Rmb995m in 1H26. We forecast revenue at Rmb2.3b/Rmb5.2b/ Rmb7.1b in 2026/28/30, a five-year CAGR of 38%. New models reaching SOP during the year could rise from 42 in 2025 to 80/90/95 in 2026/28/30 respectively, and active OEM customers from 24 to 29/37/43 respectively.
- **Licensing.** Revenue surged over 40x from Rmb23m in 2023 to Rmb968m in 2025, and spiked 67.5% yoy to Rmb607m in 1H26. We project revenue at Rmb1.7b/Rmb5.0b/Rmb10.9b in 2026/28/30 respectively, a five-year CAGR of 62%. The number of new installations grew almost tenfold from 52,000 units in 2023 to 510,000 in 2025. We expect the number of new installations to rise to 0.90m/2.91m/6.85m in 2026/28/30 respectively, lifting Momenta's share of global NOA-equipped vehicle sales from 6.4% in 2025 to 8.0%/13.4%/17.0% in 2026/28/30 respectively, while fee per vehicle could remain flat yoy at Rmb1,898 in 2026 and ease to Rmb1,720/Rmb1,590 in 2028/30 respectively. Management explicitly states that this is not an annual price cut: the licence ASP is held at about Rmb1,900 and the reduction is a volume discount of roughly 5% granted as shipments double.
- **Robotaxis.** The robotaxi fleet is projected to start operation by 4Q26. We expect the fleet to reach 100/1,000/46,000 vehicles by end-26/27/30 respectively, up from 31 as of end-25, with monthly fee rising gradually from Rmb4,000 in 2027 to Rmb6,000 in 2030, boosting revenue from Rmb26m in

Figure 10: Key Assumptions For Revenue Model

Year to 31 Dec (Rmbm)	25	26F	27F	28F	29F	30F
MASS-PRODUCTION SOLUTIONS						
Cumulative nominations	170	274	380	488	597	706
- of which at SOP	68	148	233	323	415	510
New models reaching SOP during the year	42	80	85	90	92	95
Active OEM customers	24	29	33	37	40	43
Revenue per active OEM customer (Rmbm)	100.5	138.2	212.6	306.6	402.1	502.3
Backlog projects	34	43	52	62	70	79
Backlog value (Rmbm)	2,800	3,800	4,600	5,600	6,400	7,400
Cumulative installations ('000 vehicles)	680	1,580	3,280	6,190	10,660	17,510
Installations during the year ('000 vehicles)	510	900	1,700	2,910	4,470	6,850
yoy % chg	*332.2*	*76.5*	*88.9*	*71.2*	*53.6*	*53.2*
Share of global NOA-equipped vehicle sales (%)	6.4	8.0	11.0	13.4	15.0	17.0
Licensing fee per vehicle (Rmb)	1,898	1,898	1,807	1,720	1,650	1,590
yoy % chg	*(23.4)*	*0.0*	*(4.8)*	*(4.8)*	*(4.1)*	*(3.6)*
ROBOTAXIS						
Fleet at year-end (vehicles)	31	100	1,000	22,000	34,000	46,000
Average operating fleet (vehicles)	-	66	550	11,500	28,000	40,000
Overseas share of fleet (%)	-	40	50	55	60	60
Monthly licence fee per vehicle (Rmb)	-	3,600	4,000	5,600	5,800	6,000
Implied revenue per operating vehicle (Rmb'000)	-	10.8	48.0	67.2	69.6	72.0
ROBOVANS						
Fleet at year-end (vehicles)	-	1,000	10,000	20,500	26,000	32,000
Average operating fleet (vehicles)	-	-	5,500	15,250	23,250	29,000
Monthly licence fee per vehicle (Rmb)	-	-	1,800	2,000	2,000	2,000
Implied revenue per operating vehicle (Rmb'000)	-	-	21.6	24.0	24.0	24.0

Source: UOB Kay Hian

2027 to Rmb2,880m in 2030. The company targets over 100 vehicles across more than 10 countries by end-26 and over 1,000 across more than 30 countries by end-27.

- **Robovans.** We expect the fleet to reach 1,000/10,000/32,000 vehicles by end-26/27/30 respectively, with a monthly fee of Rmb1,800-2,000, giving a revenue of Rmb119m/Rmb696m in 2027/30. Momenta targets 1,000/10,000 robovans by end-26/27 respectively, with the first mass-produced model, contract-manufactured by Guangzhou Automobile Group Co (GAC), arriving in 4Q26. Management also expects robovan solutions to commercialise faster than robotaxi solutions, as the regulatory bar for a 40km/h delivery vehicle is lower and the customers are businesses rather than consumers.

GROSS MARGIN

Blended gross margin spiked from 17.5% in 2023 to 71.6% in 2025, as the higher-margin licensing services segment grew from 3.1% of revenue to 40.1%. We forecast a blended gross margin of 72.8%/72.8%/76.3% in 2026/28/30 respectively, against 73.2% in 1H26. The prospective rise in blended gross margin is a mixed effect, with licensing services potentially expanding from 40.1% of revenue in 2025 to 42.6%/44.1%/50.4% in 2026/28/30 respectively.

- **Technical development services.** We estimate the gross margin of technical development services at 60.0%/60.0%/60.0% in 2026/28/30 respectively, increasing from 59.2% in 2025, as scale spreads a largely fixed engineering base over more programmes, partly offset by lower-priced work on volume platforms.
- **Licensing services.** We assume licensing gross margin is flat at 90.0% throughout. The software is already written when a vehicle is built, so the only cost of sale is validation. The company does not book separate warranty, insurance or indemnity provisions; such costs are expensed as incurred, consistent with peers.
- **Robotaxi and robovan solutions.** We expect robotaxi gross margin to rise from 55.0% in 2026-27 to 60.0%/70.0% in 2028/30 respectively, as the average operating fleet scales from 550 vehicles to 11,500 against a largely fixed remote assistance and operations cost. As for robovans, we assume gross margin would rise from 40.0% of revenue in 2027 to 55.0% in 2030, since the monthly fee of Rmb1,800-2,000 is less than half the robotaxi fee while the support cost per vehicle is similar.

OPEX

Opex/revenue ratio plummeted from 227.4% in 2023 to 103.5% in 2025 and 99.4% in 1H26. We expect this ratio to drop to 89.9%/73.3%/62.6% in 2026/28/30 respectively, based on the following assumptions:

- **Selling expense.** We forecast selling expense would make up 8.6% of revenue in 2026, 6.3% in 2028 and 4.3% in 2030, against 9.3% in 2025, implying absolute cost rises from Rmb225m to Rmb345m/Rmb715m/Rmb929m in 2026/28/30 respectively. Selling to 43 OEM customers does not need a sales force that scales with volume.
- **General and administrative expense.** We forecast general and administrative expense would account for 13.3% of revenue in 2026, 7.0% in 2028 and 5.3% in 2030, down from 16.7% in 2025, with absolute cost rising from Rmb404m to Rmb533m/Rmb794m/Rmb1,145m in 2026/28/30 respectively. This ratio falls fastest as most of the base is fixed.
- **R&D expense.** We expect R&D expense to constitute 68% of revenue in 2026, 60% in 2028 and 53% in 2030, down from 77.5% in 2025, with the absolute expense still rising from Rmb1.87b to Rmb2.73b/Rmb6.81b/Rmb11.45b respectively. Share-based compensation could fall from 12.1% of revenue in 2025 to 9.5%/6.5%/4.8%. The company plans to lease 60,000 GPUs for training its AI models by end-26, up from 20,000 as at end-25. We expect Momenta to spend Rmb1.2b/Rmb3.75b/Rmb6.25b on leasing GPUs in 2026/28/30 respectively.

Figure 11: P&L

Year to 31 Dec (Rmbm)	25	26F	27F	28F	29F	30F
REVENUE						
Technical development services	1,445	2,300	3,800	5,200	6,200	7,130
Licensing	968	1,708	3,072	5,005	7,376	10,892
Robotaxi	-	1	26	773	1,949	2,880
Robovan	-	-	119	366	558	696
Total revenue	**2,413**	**4,009**	**7,017**	**11,344**	**16,082**	**21,598**
yoy % chg	*82.1*	*66.2*	*75.0*	*61.7*	41.8	34.3
REVENUE MIX (%)						
Technical development services	59.9	57.4	54.2	45.8	38.6	33.0
Licensing	40.1	42.6	43.8	44.1	45.9	50.4
Robotaxi	-	0.0	0.4	6.8	12.1	13.3
Robovan	-	-	1.7	3.2	3.5	3.2
GROSS MARGIN (%)						
Technical development services	59.2	60.0	60.0	60.0	60.0	60.0
Licensing	90.0	90.0	90.0	90.0	90.0	90.0
Robotaxi	n.a.	55.0	55.0	60.0	65.0	70.0
Robovan	n.a.	n.a.	40.0	45.0	50.0	55.0
Blended	71.6	72.8	72.8	72.8	74.0	76.3
GROSS PROFIT						
Technical development services	856	1,381	2,282	3,120	3,717	4,278
Licensing	871	1,537	2,765	4,505	6,638	9,802
Robotaxi	-	0	15	464	1,267	2,016
Robovan	-	-	48	165	279	383
Total gross profit	**1,727**	**2,918**	**5,108**	**8,253**	**11,901**	**16,479**
Other income	13	36	35	45	56	65
Other gains & losses	112	-	-	-	-	-
Change in fair value of convertible preferred shares	(2,843)	(16,311)	-	-	-	-
Impairment losses	3	-	-	-	-	-
Selling expenses	(225)	(345)	(512)	(715)	(836)	(929)
General & admin expenses	(404)	(533)	(667)	(794)	(1,013)	(1,145)
R&D	(1,869)	(2,726)	(4,701)	(6,806)	(9,167)	(11,447)
EBIT	**(3,485)**	**(16,961)**	**(737)**	**(17)**	**941**	**3,024**
EBIT margin (%)	*(144.5)*	*(423.1)*	*(10.5)*	*(0.1)*	*5.9*	*14.0*
Net finance income	56	101	150	144	156	185
Profit before tax	(3,429)	(16,860)	(587)	127	1,097	3,208
Income tax expense	(29)	(40)	-	-	(164)	(481)
Net profit (GAAP)	**(3,458)**	**(16,900)**	**(587)**	**127**	**932**	**2,727**
Net profit (adj)	**(303)**	**(170)**	**(25)**	**864**	**1,817**	**3,764**
Net margin (%)	*(143.3)*	*(421.6)*	*(8.4)*	*1.1*	*5.8*	*12.6*
Core net margin (%)	*(12.6)*	*(4.2)*	*(0.4)*	*7.6*	*11.3*	*17.4*
EPS (Rmb)	(16.04)	(71.75)	(2.49)	0.54	3.96	11.58
Adjusted EPS (Rmb)	(1.40)	(0.72)	(0.11)	3.67	7.71	15.98
Number of shares (m)	215.6	235.5	235.5	235.5	235.5	235.5

Source: UOB Kay Hian

- **Change in fair value of convertible preferred shares.** Momenta registered Rmb1,190m/Rmb1,968m/Rmb2,843m/Rmb16.31b in losses from the change in fair value of convertible preferred shares in 2023/24/25/1H26 respectively. The convertible preferred shares are classified as liabilities and would be revaluated every time refinancing takes place, resulting in losses. All of the convertible preferred shares have been converted into common shares right after the IPO, and this item will be zero from 2H26 onwards.

EARNINGS

- **Gross profit** surged 12x from Rmb130m in 2023 to Rmb1.73b in 2025 and grew 79% yoy to Rmb1.17b in 1H26, driven by revenue growth and gross margin expansion. We anticipate gross profit growing at a five-year CAGR of 57% to Rmb2.92b/Rmb8.25b/Rmb16.48b in 2026/28/30 respectively.
- **EBIT.** Operating loss increased from Rmb2,659m in 2023 to Rmb3,485m in 2025, with the increased loss from revaluation of convertible preferred shares and R&D expenses offsetting gross profit growth. We forecast EBIT losses of Rmb16.96b/Rmb737m in 2026/27, followed by near breakeven at -Rmb17m in 2028, before turning positive at Rmb941m in 2029 and rising to Rmb3.02b in 2030.
- **Reported net profit.** The company registered a net loss of Rmb2,570m/ Rmb3,206m/Rmb3,458m/Rmb16.54b in 2023/24/25/1H26 respectively. We forecast a reported net loss of Rmb16.9b in 2026 before narrowing to Rmb587m in 2027, followed by a reported net profit of Rmb127m/Rmb932m/Rmb2.73b in 2028/29/30 respectively. The huge net loss in 1H26/2026 can be mainly attributed to the aforementioned Rmb16.31b loss from the change in the fair value of convertible preferred shares.
- **Adjusted net profit.** Adjusted net loss narrowed 72% from Rmb1,093m in 2023 to Rmb303m in 2025, and shrank 97% yoy to Rmb14m in 1H26, driven by gross profit growth. We forecast the adjusted bottom line turning from a net loss of Rmb170m/Rmb25m in 2026/27 to a net profit of Rmb864m/Rmb1.82b/Rmb3.76b in 2028/29/30 respectively.

FINANCIAL POSITION AND CASH FLOWS

- **Net cash and balance sheet.** Momenta had Rmb3.3b in net cash and Rmb7.7b in financial assets at fair value through profit and loss (FVTPL) as of 30 Jun 26. We expect net cash to rise to Rmb6,595m as at end-26, fall to Rmb6,320m as at end-27 and rebound to Rmb10.89b as at end-30 on HK$5,656m of net IPO proceeds in 2026. We also foresee a reversal from negative free cash flow in 2026-27 to positive free cash flow in 2028-30. Shareholders' equity could turn positive in 2026 at Rmb16.63b once the convertible preferred shares convert.
- **Cash flows.** Operating cash outflow decreased 74% from Rmb1,069m in 2023 to Rmb281m in 2025. We expect operating cash flow to swing to an inflow of Rmb671m in 2028 and grow to Rmb1.43b/Rmb3.01b in 2029/30 respectively. We estimate capex at Rmb100m-200m p.a. in 2026-30, given the company's asset-light business model. As such, we expect free cash flow to turn positive at Rmb520m in 2028, and grow to Rmb1.25b/Rmb2.81b in 2029/30 respectively.

Figure 12: Cash Flows

Year to 31 Dec (Rmbm)	25	26F	27F	28F	29F	30F
Profit before tax	(3,429)	(16,860)	(587)	127	1,097	3,208
Depreciation & amortisation	119	71	78	89	105	122
Change in fair value of convertible preferred shares	2,843	16,311	-	-	-	-
Share-based payment	292	381	561	737	885	1,037
Finance costs	3	3	3	3	3	3
Interest income	(58)	(104)	(153)	(147)	(158)	(187)
Forex loss	3	-	-	-	-	-
Other non-cash items	(78)	-	-	-	-	-
Working capital changes	(30)	(127)	(202)	(285)	(497)	(878)
Income tax paid	(1)	-	-	-	(164)	(481)
Interest received	55	104	153	147	158	187
Operating cash flow	**(281)**	**(221)**	**(147)**	**671**	**1,427**	**3,011**
Capex	(88)	(100)	(125)	(150)	(175)	(200)
Others	(9,599)	-	-	-	-	-
Investing cash flow	**(9,687)**	**(100)**	**(125)**	**(150)**	**(175)**	**(200)**
Proceeds from borrowings	108	-	-	-	-	-
Loan repayment	(210)	-	-	-	-	-
Proceeds from preferred share issuance	8,436	-	-	-	-	-
Proceeds from share issuance	-	4,918	-	-	-	-
Others	(10)	(3)	(3)	(3)	(3)	(3)
Financing cash flow	**8,324**	**4,916**	**(3)**	**(3)**	**(3)**	**(3)**
Net change in cash & cash equivalent	**(1,645)**	**4,595**	**(275)**	**518**	**1,248**	**2,808**
Beginning cash & cash equivalent	2,998	1,307	5,901	5,626	6,144	7,393
Changes due to forex	(46)	-	-	-	-	-
Ending cash & cash equivalent	**1,307**	**5,901**	**5,626**	**6,144**	**7,393**	**10,200**

Source: UOB Kay Hian

Profit & Loss

Year to 31 Dec (Rmbm)	2025	2026F	2027F	2028F
Net turnover	2,413	4,009	7,017	11,344
EBITDA	(3,366)	(16,890)	(659)	72
Deprec. & amort.	(119)	(71)	(78)	(89)
EBIT	(3,485)	(16,961)	(737)	(17)
Total other non-operating income	-	101	150	144
Associate contributions	-	101	150	144
Net interest income/(expense)	56	101	150	144
Pre-tax profit	(3,429)	(16,860)	(587)	127
Tax	(29)	(40)	-	-
Minorities	-	-	-	-
Net profit	(3,458)	(16,900)	(587)	127
Net profit (adj.)	(303)	(170)	(25)	864

Balance Sheet

Year to 31 Dec (Rmbm)	2025	2026F	2027F	2028F
Fixed assets	182	230	290	359
Other LT assets	934	915	902	895
Cash/ST investment	1,307	5,901	5,626	6,144
Other current assets	10,479	11,151	12,429	14,266
Total assets	12,901	18,197	19,247	21,664
ST debt	19	19	19	19
Other current liabilities	30,727	1,502	2,578	4,130
LT debt	33	33	33	33
Other LT liabilities	13	13	13	13
Shareholders' equity	(17,891)	16,630	16,604	17,469
Minority interest	-	-	-	-
Total liabilities & equity	12,901	18,197	19,247	21,664

Cash Flow

Year to 31 Dec (Rmbm)	2025	2026F	2027F	2028F
Operating	(281)	(221)	(147)	671
Pre-tax profit	(3,429)	(16,860)	(587)	127
Tax	(1)	-	-	-
Deprec. & amort.	119	71	78	89
Associates	-	-	-	-
Working capital changes	(30)	(127)	(202)	(285)
Non-cash items	3,060	16,695	564	740
Other operating cashflows	-	-	-	-
Investing	(9,687)	(100)	(125)	(150)
Capex (growth)	(91)	(100)	(125)	(150)
Investments	(9,599)	-	-	-
Others	3	-	-	-
Financing	8,324	4,916	(3)	(3)
Dividend payments	-	-	-	-
Proceeds from borrowings	108	-	-	-
Loan repayment	(210)	-	-	-
Others/interest paid	8,426	4,916	(3)	(3)
Net cash inflow (outflow)	(1,645)	4,595	(275)	518
Beginning cash & cash equivalent	2,998	1,307	5,901	5,626
Changes due to forex impact	(46)	-	-	-
Ending cash & cash equivalent	1,307	5,901	5,626	6,144

Key Metric

Year to 31 Dec (%)	2025	2026F	2027F	2028F
Profitability				
EBITDA margin	(139.5)	(421.3)	(9.4)	0.6
Pre-tax margin	(142.1)	(420.6)	(8.4)	1.1
Net margin	(143.3)	(421.6)	(8.4)	1.1
ROA	(39.6)	(108.7)	(3.1)	0.6
ROE	n.m.	n.m.	(3.5)	0.7
Growth				
Turnover	82.1	66.2	75.0	61.7
EBITDA	n.m.	n.m.	n.m.	n.m.
Pre-tax profit	n.m.	n.m.	n.m.	n.m.
Net profit	n.m.	n.m.	n.m.	n.m.
Net profit (adj.)	n.m.	n.m.	n.m.	n.m.
EPS	n.m.	n.m.	n.m.	n.m.
Leverage				
Debt to total capital	0.4	0.3	0.3	0.2
Debt to equity	n.m.	0.3	0.3	0.3
Net debt/(cash) to equity	n.m.	(39.7)	(38.1)	(39.1)
Interest cover (x)	n.m.	n.m.	n.m.	n.m.

Appendix I: Risk Factors

- **Customer concentration.** Momenta's top five customers and largest customer accounted for 62.6% and 21.6% of 2025 revenue, down from 86.7% and 35.7% respectively in 2023 but still high. One cancelled platform can remove a year of revenue from a programme that has already incurred engineering costs. Momenta mitigates this by spreading 219 nominations across 26 active OEM customers in 13 international and 11 Chinese groups. We expect the backlog to widen to 62/79 projects by 2028/30 respectively, diluting the effect of any single loss.
- **Sustainability of data flywheel moat.** Several OEMs are building driving-automation in-house, and a competitor with more production volume could in principle out-train Momenta and erode the performance gap that justifies its fee. Momenta mitigates this with: a) 1,628m km of accumulated NOA mileage against the next-largest independent provider's 900m km, b) 13b km of total fleet mileage as at 30 Jun 26, c) an automated training loop fed by 630,000 clips a day, d) the widest platform coverage in the segment at four SoC platforms and 10 domain-controller partners, and e) equity relationships with GM and Mercedes-Benz that make a switch costly.
- **Overseas national-security scrutiny** could block or delay the entry of Momenta's software in foreign markets, cutting revenue and raising compliance costs. European OEM shareholders, board oversight, local data compliance and a Germany-wide L4 permit help it navigate overseas markets. As the US prohibits cars sold in the country from being installed with Chinese ADAS solutions, Momenta does not sell to the US market.
- **Chip/SoC supply.** Momenta's software runs on third-party SoC platforms, so export controls, an allocation shortage or a roadmap change at a chip vendor could delay a programme and push revenue to a later year. Momenta mitigates this by qualifying its stack on four SoC platforms with 10 domain-controller partners, allowing for silicon re-targeting, though re-validation incurs time costs. Momenta's affiliated chip company, XHEART, has developed a dedicated ADAS SoC, the X7 (320 TOPS, 7nm, custom NPU), which first reached vehicles in Apr 26. XHEART sits outside the listed group with no cross-shareholding, making it an aligned second source rather than a captive one: This is a weaker hedge than an in-house chipmaker, but it nevertheless enables tighter algorithm-hardware co-optimisation.
- **Elevated cost for leasing computing power.** Chairman Cao Xudong had said in Jul 26 that Momenta's GPU spending could rise from US$200m in 2026 to US$400m/US$1.6b in 2028/30 respectively, vs Rmb3.3b in net cash and Rmb7.7b in financial assets at FVTPL as of 30 Jun 26. However, Momenta later cut its GPU budget with a target of leasing 60,000 GPUs by end-26, up from 20,000 as at end-25. Based on that, we assume Momenta's annual GPU leasing expense would rise gradually from Rmb1.2b in 2026 to Rmb3.75b/Rmb6.25b by 2028/30 respectively, representing 44%/55%/55% of total R&D expense and 29.9%/33.1%/28.9% of total revenue during the three years. Our 2026 R&D expense projection of Rmb2.73b is roughly on par with consensus, while our 2027-28 forecasts of Rmb4.7b/Rmb6.8b are 12%/14% above consensus respectively, based on higher GPU spending.

  If chip prices rise or export controls restrict supply, GPU leasing expense could be higher than we expected. A funding gap could also force additional equity or debt raising, diluting shareholders or straining the balance sheet.
- **Licensing fee deflation.** Our model assumes the licensing fee per vehicle falls from Rmb1,898 in 2025 to Rmb1,590 by 2030. Management calls this a 5% volume discount rather than an annual price cut, but in-car software has historically deflated more sharply once standardised. A fee 10%/20% below our assumption would reduce 2028-30 licensing gross margin from 90.0% to 88.9%/87.5%, and cut adjusted 2027-30 net profit by about 4-5%/7-10% respectively. Momenta mitigates this by shifting to L3 and exploring end-user subscription, both raising per-vehicle content value.

- **Robotaxi timing and regulation.** Our forecasts need the L4 fleet to reach 1,000 vehicles in 2027 and 22,000 in 2028 with 55% of it overseas, and permits are granted city by city, so a slower approval path is a real possibility. The exposure is contained: L4 accounts for only 10.0% of our 2028 revenue projection, and removing it entirely would cut 2028 gross profit by Rmb628m and adjusted net profit by 73%, with no effect on our view of the mass-production solutions business.
- **Changes in product quality and warranty provisions.** Momenta has no product warranty provision, and neither do direct peers such as Pony.ai. Historically, neither Momenta nor its Chinese peers have paid material damages for product quality issues. L2 ADAS/NOA limits risk as the driver remains responsible, but the planned L4 robotaxi (4Q26) and L3 mass-production solutions (2H27) will shift liability to Momenta. Without provisions, any incident could trigger a material one-time charge.
- **Lock-up expiry on 8 Jan 27: a concentrated supply overhang.** We flag the 8 Jan 27 lock-up expiry as a key overhang. All pre-IPO shareholders will be free to sell, unlocking about 76.7% of shares outstanding – far exceeding the IPO float. Cornerstone investors, holding nearly 50% of the deal, face no incentive to remain locked up after their six-month commitment. The risk is thus a concentrated liquidity event rather than a gradual trickle, with potential supply pressure building up to a single date rather than dissipating over time.

Appendix II: ADAS Industry

ADVANCED DRIVER ASSISTANCE SYSTEMS

ADAS and driving-automation represent the same hardware and software stack deployed at different levels of capability. The industry uses the six levels from L0 to L5 as defined by SAE International. The level determines who is responsible for the driving task – and therefore who carries the liability. The commercial importance of the levels is that each step up raises both the software content in a vehicle and the price a supplier can charge.

- **L0 and L1.** L0 covers warning systems only, such as blind spot monitoring or forward collision warning, where the car alerts the driver but does not act. L1 adds a single sustained control function – either longitudinal control (adaptive cruise control) or lateral control (lane keeping) – but not both simultaneously.
- **L2** combines longitudinal and lateral control, so the car keeps to its lane and maintains its distance at the same time. The driver remains responsible at every moment and must monitor the road continuously. Most new vehicles sold in China and Europe today use the L2 system, which is where the sales volume, and the price competition, currently sits.
  - **Highway NOA** is the first of the L2+ features. The car follows a route on a mapped, grade-separated road, changing lanes, overtaking and handling entry and exit ramps autonomously. The feature deals with a bounded problem – no pedestrians, no traffic lights and no oncoming traffic – and was largely commoditised in China during 2024-25.
  - **Urban NOA** extends the same idea to city roads. It deals with a complex problem, handling traffic lights, unprotected left turns, roundabouts, U-turns, cyclists, scooters, pedestrians and road works across varying local driving conventions. It is the feature that distinguishes suppliers, which is why measured metrics such as false-positive braking rates and success rates on U-turns and roundabouts are the currency of this segment.
- **L3,** often marketed as conditionally automated or piloted driving, is the first level at which the driver may legally stop monitoring the road within a defined operational domain, such as a motorway below a set speed. Responsibility transfers to the system while it is engaged, which is why L3 requires regulatory approval, redundant sensing, redundant braking and steering, and a documented handover procedure. It also commands a higher price and, potentially, a subscription model.
- **L4** removes the driver within a defined operational domain. The vehicle can complete the whole journey with no human fallback inside the car, enabling robotaxi and robovan services, though remote assistance centres are still used. Permits are granted city by city, with a staged assessment process typically covering from safety-driver testing to a safety operator in the passenger seat to fully unmanned operation.
- **L5** is unrestricted autonomy in any condition and any location, with no operational domain limit. No company sells it today, and none of the forecasts in this report include it.

The sensor set is the first design choice: Vision-based approach vs sensor fusion approach. A vision-based approach or camera-only stack is the cheapest and relies entirely on vision, while a sensor fusion approach or fusion stack adds radar for velocity in poor visibility and, in higher trims, light detection and ranging (LiDAR) for direct distance measurement. Chinese urban NOA platforms have converged on cameras plus radar at the mass market end and cameras plus radar plus one or two LiDAR units at the premium end. Consequently, LiDAR suppliers and driving-automation software suppliers grow together rather than in competition.

Compute is the second design choice. The driving software runs on an SoC, measured commercially in trillions of operations per second, mounted in an assisted driving control unit supplied by a tier-one electronics manufacturer. A software supplier that supports several SoC platforms can use whichever chip an OEM selects, whereas a supplier tied to one platform is exposed to that vendor's roadmap, pricing and export licence status.

Architectural models: Modular/rule-based vs end-to-end. The software itself has historically been modular or rule-based, with separate perception, prediction, planning and control components joined by hand-written rules. The industry is moving to end-to-end models, in which a single neural network maps sensor input to a driving trajectory. This handles unusual situations better but requires far more data and makes behaviour harder to audit. Momenta was the first company to mass-produce each of these architectural steps.

Training paradigms: Imitation learning vs reinforcement learning. Imitation learning copies human driving from recorded clips – it is cheap but caps performance at the average human level. Reinforcement learning improves a policy against a reward in simulation and can exceed human performance, but it needs a good simulator or world model. Both approaches are data-hungry, which is why the size and freshness of the fleet returning data is the central competitive asset in this industry.

Monetisation models: Selling, licensing and subscription. A tier-one supplier sells hardware and takes hardware margins. A software supplier charges an engineering fee to integrate a solution into a platform, then a licensing fee for each vehicle built, which carries software margins. This is Momenta's model. A third model, still emerging, charges the end user a subscription for the feature over the life of the vehicle, turning a one-off payment into recurring revenue.

POLICIES

Regulation shapes all of the aforementioned issues. In China, market access for new intelligent connected vehicles and for over-the-air (OTA) software updates is administered by the MIIT, which tightened both the rules on how driver assistance features may be marketed and the approval process for OTA updates in 2025, while also running pilots for conditionally automated vehicles. Robotaxi operation is licensed separately and city by city.

The regulatory framework for China's ADAS industry underwent significant development in 2025-26. In Feb 25, the MIIT and the State Administration for Market Regulation (SAMR) jointly issued the Circular on Further Strengthening the Administration of Market Access, Recalls and OTA Upgrades for Intelligent Connected Vehicle Products, which mandated supplementary technical parameter filings for combination driver-assistance systems and OTA upgrades, with a compliance deadline of 1 Jun 25. In Apr 25, the MIIT held a promotion meeting emphasising that OEMs must conduct thorough testing and validation of combination driver-assistance systems, clearly define system boundaries and safety response measures, and refrain from exaggerated or false marketing.

In Sep 25, the MIIT issued for public comment the mandatory national standard Intelligent Connected Vehicles – Safety Requirements for Combination Driver Assistance Systems, establishing China's first safety baseline for L2 systems. The standard imposes comprehensive safety requirements across functional boundaries, capability thresholds and product designs, with a multi-tiered evaluation framework covering 46 field-test items and 16 night-condition tests. It also mandates hands-off and eyes-off detection systems, with repeated violations triggering a 30-minute system lockout.

In Dec 25, the MIIT granted the first conditional production entry permits for L3 autonomous driving to two OEMs – Chongqing Changan and BAIC BluePark – marking the transition of China's L3 autonomous driving from the testing phase to commercial application. The approved models are restricted to highway and urban expressway scenarios, with speed limits of 50 km/h and 80 km/h respectively, and are authorised for pilot operations in designated areas of Chongqing and Beijing.

In Jun-Jul 26, the MIIT issued mandatory national standards for L2 (effective Jan 27) and L3/L4 (effective Jul 27), removing regulatory uncertainty for higher automation and accelerating industry consolidation.

China's Key Regulations For ADAS Industry

Announcement Date	Effective Date / Deadline	Key Provisions
25 Feb 25	1 Jun 25	Circular on ICV Market Access, Recalls & OTA Upgrades – Joint MIIT/SAMR issuance. Mandates supplementary technical parameter filings for L2 systems and OTA upgrades. Compliance cut-off – 1 Jun 25 was the final date for enterprises to submit supplementary technical parameters and validation materials for already-approved ICV products to MIIT and SAMR.
16 Apr 25	16 Apr 25	MIIT Promotion Meeting – OEMs required to conduct thorough L2 testing, clearly define system boundaries and safety responses, and avoid exaggerated marketing claims.
17 Sep 25	n.a.	L2 Mandatory National Standard (Intelligent Connected Vehicles – Safety Requirements for Combination Driver Assistance Systems) – China's first L2 safety baseline; covers functional boundaries, hands-off/eyes-off detection, 46 field tests and 16 night-condition tests; 30-minute lockout for repeated violations.
15 Dec 25	15 Dec 25	First L3 Production Permits – Granted to Chongqing Changan and BAIC BluePark for conditional L3 autonomy. Restricted to highway/expressway scenarios; speed limits of 50 km/h (urban expressway) and 80 km/h (highway); pilot operations in Chongqing and Beijing.
Jun 26	Jan 27	L2 National Standard Effective – Mandatory compliance for all L2 systems; expected to push L2 penetration towards 100% of new vehicle sales by 2027.
Jul 26	Jul 27	L3/L4 National Standard Effective – Removes regulatory uncertainty for higher automation, provides a clear pathway for L3/L4 commercial deployment.
9 Sep 26	2030	15th Five-Year Plan for Intelligent Connected New Energy Vehicle (ICNEV) – Total targets: NEV penetration at 70% for passenger vehicles (PV) and 40% for commercial vehicles (CV); vehicles with autonomous driving functions in large-scale application. Sub-targets: average PV fuel consumption at 3.3L/100km, average battery electric PV electricity consumption at 11.5kWh/100km; highly automated driving on highways, urban expressways and selected urban roads; labour productivity up 15% vs 2025; several Chinese OEMs in global top 10 by sales and suppliers in global top 100 for auto parts; autonomous driving safety performance substantially exceeding human drivers; and carbon peaking for the auto sector before 2030.

Source: UOB Kay Hian

The L2 Mandatory National Standard (GB 47955–2026)

On 27 Jul 26, the MIIT officially released the mandatory national standard Intelligent Connected Vehicles – Safety Requirements for Combination Driver Assistance Systems (GB 47955–2026), which takes effect on 1 Jan 27. This is China's first mandatory national standard specifically for L2-level combination driver assistance, drafted jointly by more than 30 organisations including Huawei, Xiaomi Corporation, BYD, Tesla, XPeng Inc, NIO Inc, Li Auto Inc, BMW, Mercedes-Benz, Volkswagen and Toyota. It applies to M-class (passenger) and N-class (commercial) vehicles.

The standard categorises L2 systems into three distinct classes – basic single-lane, basic multi-lane and pilot combination driver assistance (ie NOA) – and sets out separate safety requirements for each. The core provisions include:

- **Clear operational boundaries.** Basic single-lane systems are restricted to Class A roads with lane-centring cruise only and no automated lane-changing capability. Basic multi-lane systems are also limited to Class A roads, with lane changes permitted only when actively triggered by the driver and subject to strict safety conditions. Pilot combination driver assistance covers both Class A and Class B roads, supporting obstacle avoidance, roundabouts and intersection navigation.
- **Mandatory driver monitoring.** All systems must be equipped with a DMS that tracks both hands-on-wheel status and driver gaze. Hands-off warnings trigger after five seconds, escalating to audible alerts at 10 seconds. Repeated violations or risk-mitigation events triggered by driver inattention result in a system lockout of at least 30 minutes.

- **Stringent performance requirements.** At 80 km/h, the system must detect stationary obstacles 120 metres ahead and execute smooth braking. Maximum lateral acceleration is capped at 3 m/s² for PVs and 2.5 m/s² for CVs. The driver must be able to override the system with no more than 50 N of steering force.
- **Data recording and cybersecurity.** Vehicles must comply with GB 44495 for onboard cybersecurity and GB 44496 for OTA software updates, with complete logs of system activation, vehicle state and environmental data recorded in a standardised format for accident traceability.

L2 penetration in China's new PV market has reached 70% by 2026, with that for NOA‑equipped models exceeding 30%. The standard transforms L2 capability from a "differentiator" into a "market access threshold", effectively pushing L2 penetration towards 100% by 2027. For OEMs with limited technical resources or compromised algorithms, the standard creates significant compliance pressure, while companies with established safety engineering and real‑world validation data gain a competitive moat.

The L3/L4 Mandatory National Standard (GB 44721–2026)
On 30 Jul 26, the MIIT released the mandatory national standard Intelligent Connected Vehicles – Safety Requirements for Automated Driving Systems (GB 44721–2026), effective 1 Jul 27. This is China's first mandatory standard for L3 (conditionally automated) and L4 (highly automated) driving systems, superseding the previous recommendatory standard GB/T 44721–2024. It applies to M‑class and N‑class vehicles equipped with L3 or L4 systems, excluding automated parking systems.

The standard establishes five core pillars:

- **Full-lifecycle manufacturer accountability.** Vehicle manufacturers must establish safety assurance capabilities across four dimensions – safety policy, risk management, safety assurance and safety improvement – covering the entire product lifecycle from design and development through production and post-deployment.
- **Safety performance baseline.** The automated driving system must achieve a safety level at least equivalent to that of a competent, attentive human driver performing the dynamic driving task, and must not pose unreasonable safety risks to users or other road users.
- **Driver takeover capability monitoring (L3-specific).** L3 systems must monitor whether the driver is seated and wearing a seatbelt, and assess driver readiness using at least two indicators (eg, eye-closure, head-down) with assessment cycles of no more than 30 seconds.
- **Minimum risk manoeuvre requirements.** L3 systems must move the vehicle to the side of the road and come to a safe stop without obstructing traffic; L4 systems must move the vehicle to a safe area and stop, with higher requirements than L3.
- **Multi-dimensional testing regime.** Third-party testing institutions perform a comprehensive evaluation using three pillars: a) enterprise capability verification, b) safety file inspections, and c) confirmatory testing. The evaluation takes place via simulation, proving ground, and on-road tests.

The standard replaces a voluntary reference framework with a binding safety baseline. L3 and L4 autonomous driving now have a unified "market access threshold". New L3/L4 models must comply with the standard from Jul 27, while already-approved models have a 13-month transition period until 2028. The standard aligns with the UN's Automated Driving Systems Global Technical Regulation (ADS GTR) while introducing more detailed technical requirements tailored to China's complex traffic environment – for example, including e-bikes as a test scenario.

For Momenta, these regulatory developments are a clear positive. Its dominant 65.4% share of independent urban NOA programmes and its established safety engineering capabilities make it a primary beneficiary of industry consolidation.

- The L2 standard's DMS and data recording requirements may raise near-term integration costs across its 24 OEM customers and four SoC platforms, but Momenta's extensive real-world validation data – 1,628m km accumulated and 630,000 clips per day – creates a moat that newer entrants without comparable documentation cannot easily replicate.
- For the L3/L4 standard, Momenta's asset-light licensing model – supplying the driving system while partners own the fleet – aligns well with the standard's emphasis on manufacturer accountability, as Momenta's role is software provision rather than vehicle operations. The L3/L4 standard removes regulatory uncertainty for higher automation, potentially accelerating the robo segment's already rapid growth trajectory (127.9% five-year CAGR) and supporting Momenta's longer-term upside optionality.

Overall, the standards reinforce Momenta's competitive edge while adding near-term compliance overheads that are manageable given its scale and platform breadth.

The 15th Five-Year Plan For Intelligent Connected New Energy Vehicles (ICNEV), Sep 26.
On 11 Sep 26, the MIIT and eight other government agencies jointly issued the Intelligent Connected New Energy Vehicle Industry Development 15th Five-Year Plan (MIIT Joint Planning Letter (2026) Number 305), covering 2026-30. The plan adopts a "1+4" target framework and introduces, for the first time in a Chinese automotive policy document, binding quantitative targets for both new energy vehicle (NEV) penetration and automated driving deployment alongside energy-consumption and productivity benchmarks.

Quantitative targets ("1+4" framework). The single overarching target ("1") is for China to enter the ranks of world automotive powerhouses by 2030, with domestic new energy PVs making up 70% of new PV sales and new energy CVs accounting for 40% of new CV sales, and vehicles equipped with autonomous driving functions achieving large-scale application. Four sub-targets ("4") quantify the supporting conditions:

- **Technology level** – Average PV fuel consumption of 3.3L/100km and average battery electric PV electricity consumption of about 11.5kWh/100km, with highly automated driving realised on highways, urban expressways and selected urban roads;
- **Industrial structure** – Labour productivity per employee up 15% vs 2025, several Chinese OEMs in the global top 10 by sales and suppliers in the global top 100 auto parts companies;
- **Internationalisation** – Chinese auto brands with strong reputations and greater weight in international standards and regulations; and
- **Economic and social benefits** – The auto sector seeing carbon emissions peak before 2030 and supply chains accelerating the green transition. The plan also states that the safety performance of vehicles equipped with autonomous driving systems will substantially surpass that of a competent human driver – the first time such a benchmark has appeared in a Chinese automotive policy document.

Core tasks and implementation mechanisms. The plan deploys five focus areas, 17 key tasks, four major engineering programmes and three key initiatives.

- The five focus areas: Improving technological innovation capability, optimising and upgrading the industrial system, promoting cross-sector integration, building a science-based and efficient governance framework, and opening up a new phase of global industrial cooperation.

- The four engineering programmes: Key technology breakthrough, standards and testing capability enhancement, safety foundation, and internationalisation capability upgrade.
- The three initiatives: The “AI + Automotive” development action, the key components ecosystem and leading enterprise cultivation action, and the ICNEV application promotion action. The plan also calls for accelerating the revision of functional safety, expected functional safety, cybersecurity and data security standards, and for the rapid release and implementation of safety standards for automated driving systems and automated parking systems.

Impacts on the industry and Momenta. Three implications stand out:

- **Hard-code NEV penetration targets underpin market expansion.** The plan hard-codes NEV penetration at 70%/40% by 2030, which implies the ICNEV market will continue to expand at a pace sufficient to lift the PV NEV share from roughly 60% in 2026 to 70% by 2030, with the CV target representing a step-change from current penetration levels. For Momenta, a larger NEV parc means a larger addressable base for urban NOA and L3 features, reinforcing the volume assumptions underpinning our installation forecast (510,000 units in 2025 rising to 2.91m by 2028).
- **Large-scale automated driving deployment locks in L3/L4 commercialisation.** The automated driving deployment target – “large-scale application” of vehicles with autonomous driving functions, with highly automated driving on highways, urban expressways and selected urban roads – sets a binding policy expectation that L3 and L4 commercialisation will not be slowed by regulatory uncertainty. This is consistent with the mandatory L2 (GB 47955–2026) and L3/L4 (GB 44721–2026) national standards effective in 2027, and it supports our view that L3 adoption begins in 2H27 and that the robotaxi/robovan services segment grows at a five-year CAGR of 127.9%.
- **Productivity and leading-enterprise cultivation favour scale incumbents.** The productivity target (+15% labour productivity vs 2025) and the “leading enterprise cultivation” initiative signal continued policy support for scale consolidation, favouring incumbents with: a) a dominant independent urban NOA share (Momenta at 65.4%), b) multi-SoC platform coverage (four platforms, 10 domain-controller partners), and c) extensive real-world validation data (1,628m km of NOA mileage and 630,000 clips per day). It also raises the compliance bar for smaller competitors. The plan is therefore a quantified policy tailwind for the core mass-production licensing business and a structural catalyst for the higher-value L3 and L4 optionality that our forecasts do not yet fully reflect.

Appendix III: Company Overview

COMPANY BACKGROUND

Momenta, incorporated in the Cayman Islands in Sep 16 and headquartered in Suzhou, Jiangsu province, was founded by Mr Cao Xudong and three co-founders, all of whom remain executive directors. Mr Cao was formerly a researcher at Microsoft Research Asia and an executive R&D director at SenseTime Group Inc (SenseTime).

The company develops automated-driving software, licensing it to automakers for mass-produced vehicles and to fleet operators for L4 robotaxi and robovan services. As of 31 Dec 25, it employed 1,414 people, including 1,157 (81.8%) in R&D. The founding team's technical pedigree and continued board representation provide strategic continuity.

Momenta was listed on the Main Board of the Hong Kong Stock Exchange on 8 Jul 26, at HK$295.60 per share, raising net proceeds of HK$5,656m. Of this, 60% is allocated to R&D, 20% to commercialisation, and 10% each to the L4 business and general corporate purposes.

Key Milestones

Year	Milestone
2016	Incorporated in the Cayman Islands and founded in Suzhou by Mr Cao Xudong and three co-founders.
2017	Began collaborating with Mercedes-Benz, which also became a shareholder.
2019	Became the first company in the world to implement a transformer architecture in a production perception system.
2019	Established the "one flywheel, two legs" strategy of training a single model for both mass production and full autonomy.
2020	Partnered with, and received investment from, Toyota; opened its first overseas office in Germany; launched robotaxi operations in Suzhou.
2021	Began collaborating with SAIC, GM and BYD, and extended robotaxi operations to Shanghai.
2022	Started production of its first driving-automation solution.
2023	First in the world to mass-produce a Deep Learning Planning system, and obtained its first robotaxi permit in Suzhou.
2024	First in the world to mass-produce urban NOA, and to mass-produce an end-to-end model unifying perception and planning.
2025	Released the R6 reinforcement learning large model.
2025	Began collaborating with Chery, Hyundai, BYD and Grab, partnered with EnjoyGo, and obtained L4 permits in Abu Dhabi.
2025	Cumulative installations passed 680,000 vehicles and cumulative nominations reached 170 across 24 active OEM customers.
2026	Obtained a pilot robotaxi permit in Wuxi, and unmanned operation permits for the EnjoyGo partnership in January.
2026	Ranked first among independent driving-automation providers globally, capturing 64.5% of independent urban NOA vehicle sales as at 28 February.
2026	Listed on the Main Board of the Stock Exchange of Hong Kong on 8 July at HK$295.60 per share, raising net proceeds of Rmb4,918m.

Source: UOB Kay Hian

BUSINESSES AND SERVICES

- **Mass-production solutions driving automation.** Momenta's core offering is a mass-production driving-automation software stack that delivers highway NOA, urban NOA and automated parking on a carmaker's own vehicle platforms. By end-25, this stack had been installed in more than 680,000 vehicles and accounted for all of the company's revenue that year. Revenue is generated through four models.
  - **Technical development services.** The first is technical development services, where Momenta charges an engineering fee for integrating, calibrating and validating its solution on a specific vehicle platform, with revenue recognised as the work is performed. In 2025, this segment generated Rmb1,445m, or 59.9% of total revenue.
  - **Licensing.** The second model is licensing, under which Momenta charges a per-vehicle fee for every vehicle produced with its software, at a gross margin above that of its technical development service. Licensing revenue reached Rmb968m in 2025 (40.1% of total revenue), up from just 3.1% in 2023.
  - **Robotaxi.** In the robotaxi space, Momenta supplies the L4 system rather than owning the fleet. Management intends to be paid through a three-way revenue share between itself as the AI driver, the OEM that builds and maintains the vehicle, and the ride-hailing platform that supplies demand, with Momenta also running the technology-side back office. Our model still carries a monthly per-vehicle fee as a proxy for that share. At end-25, the fleet comprised 31 vehicles, with operating permits in Suzhou, Shanghai, Wuxi and Abu Dhabi, and framework agreements with Uber and Grab.
  - **Robovan.** The same model is applied to robovans – unmanned goods-delivery vehicles. Management targets to deploy 1,000 units by end-26, with the first mass-produced model contract-manufactured by GAC in 4Q26, whereas our forecasts start to recognise robovan revenue only in 2027.

  The technology platform. Underpinning these products is a unified technology platform: a single model architecture trained on data from the mass-production fleet, serving both assisted driving products and L4 systems. The current generation is R7, a world model built to L4 standards, which succeeded the R6 reinforcement learning large model released in 2025; management puts R7 at about 1b parameters today against a target of 10b by end-27. The stack is qualified on four SoC platforms with 10 domain-controller partners.

CUSTOMERS

As at 31 Dec 25, Momenta had 24 active OEM customers, of which 13 were international groups; management put the count at 26 OEMs as at 30 Jun 26. Its clientele spans eight of the world's 10 largest OEM groups by sales volume and nine of China's 10 largest, including Mercedes-Benz, BMW, Audi, Toyota, Nissan Motor Co, GM, SAIC, GAC, FAW Group Corporation, BYD, Chery, and Hyundai.

Customer concentration has declined as the base has widened: The top five customers accounted for 86.7% of revenue in 2023, 78.3% in 2024 and 62.6% in 2025, while the largest single customer's share fell from 35.7% to 19.3% and then rebounded to 21.6% over the same period.

The sales cycle runs from nomination to the start of production and typically takes 2-3 years, providing good orderbook visibility. By end-25, cumulative nominations reached 170, of which 68 had entered production. By 30 Jun 26, there were 219 nominations and 105 models in production. Urban NOA alone accounted for 155 nominations and 57 programmes in production, covering over 650,000 vehicles. A selection of the vehicle models that carry, or have been announced with, a Momenta system is listed in the table on the next page.

Some Of The Vehicle Models Installed With Momenta Systems

OEM	Brand	Model	Note
Mercedes-Benz	Mercedes-Benz	All-new electric CLA	Unveiled; mass-production solutions planned
BMW	BMW	Neue Klasse iX3 long-wheelbase	Production planned for 2026
Audi	Audi	E5 Sportback	Pre-sales open
SAIC-GM	Buick	Zhijing L7	First model with the R6 reinforcement learning large model
SAIC-GM	Buick	Zhijing Shijia	Unveiled at the Guangzhou motor show
SAIC Motor	IM Motors	LS9	Flagship six-seater; R6 large model
SAIC Motor	IM Motors	LS6 (new generation)	R6 large model
SAIC Motor	IM Motors	L6 / L7 / LS7	Selected variants
FAW	Hongqi	HS6 PHEV	Mid-to-large plug-in hybrid SUV
Toyota	GAC Toyota	Bozhi 7	Flagship D-segment battery electric saloon; R6 large model
Toyota	GAC Toyota	Bozhi 3X	R6 large model
Toyota	FAW Toyota	bZ5	Unveiled at the Guangzhou motor show
Toyota	FAW Toyota	bZ3 (Zhixiangjia)	Unveiled at the Guangzhou motor show
GAC	Trumpchi	Xiangwang S7	Jointly developed driver assistance system
GAC	Trumpchi	M8	Unveiled at the Guangzhou motor show
GAC	Hyptec	HL / GT / HT	Flywheel large model
Chery	Chery	Fengyun A9L	“Falcon” advanced assisted driving package
Chery	Chery	Fengyun T11	“Falcon” advanced assisted driving package
Nissan	Dongfeng Nissan	N6	Flywheel large model
Nissan	Dongfeng Nissan	N7	Flywheel large model
BYD	Yangwang	U7 / U8	Selected variants
BYD	Denza	Z9 / D9 / N9	Selected variants
BYD	Fangchengbao, Dynasty and Ocean	Tai 7 / Han L / Tang L / Seal / Sea Lion	Selected variants

Source: UOB Kay Hian

R&D

R&D expense was Rmb1,281m in 2023, Rmb1,508m in 2024, and Rmb1,869m in 2025, equivalent to 172.5%, 113.9% and 77.5% of revenue respectively. As of 31 Dec 25, Momenta employed 1,157 R&D staff, representing 81.8% of its total workforce. We forecast R&D spend of Rmb2,726m in 2026, Rmb4,701m in 2027 and Rmb6,806m in 2028, equivalent to 68.0%, 67.0% and 60.0% of revenue respectively. In addition, 60% of the net IPO proceeds of Rmb4,918m is earmarked for R&D. Share-based compensation, which sits mainly in this line item, was 12.1% of revenue in 2025, and we expect it to fall to 6.5% by 2028.

What differentiates Momenta from its peers in R&D is not the scale of spending alone, but the underlying technology paradigm and data strategy. While many rivals pursue imitation learning or modular approaches, Momenta has pioneered a reinforcement learning foundation model built on an end-to-end architecture – the first in China to achieve true mass-production deployment.

Unlike imitation learning, which merely replicates human driving behaviour, reinforcement learning enables the system to explore novel driving manoeuvres in simulation, learn from both successes and failures, and self-evolve at speed – potentially surpassing human-level driving competence. The R6 Flywheel Big Model released in 2025, since then superseded by the R7 world model, integrates perception, planning and decision-making into a unified architecture, eliminating the inefficiencies of traditional modular designs. Its “long-term memory + short-term memory” hybrid training architecture mimics human “intuitive reasoning + logical analysis”, substantially reducing training costs while effectively addressing millions of long-tail scenarios.

At the heart of Momenta's R&D edge is its "one flywheel, two legs" data strategy. The flywheel operates on three factors – massive real-world data, data-driven algorithms and a closed-loop automation toolchain. By licensing its assisted driving software to high-volume production vehicles, the company continuously harvests authentic driving data from an ever-growing fleet; this data, in turn, trains and refines both the production-grade assisted driving products and the L4 autonomous system, creating a virtuous cycle of mutual reinforcement.

This is not merely about accumulating raw data – Momenta's edge lies in the full-stack capability to convert low-value data into high-value intelligence through screening, refining, training and iterative validation. The company's world model is pre-trained on real-world data from its production fleet, which passed 1m vehicles as at 30 Jun 26, equipping the system with fundamental physical-world understanding, followed by post-training that aligns model behaviour with expert human driving habits.

The scale and velocity of this data flywheel are formidable competitive moats. Momenta had accumulated 6.85b km of driving data by end-25, distilled into 70m high-value data samples; management put cumulative mileage at 13b km and golden data at more than 100m clips as of 30 Jun 26, and targets 20b km by end-26. Delivery velocity has accelerated from 24 months for the first 100,000 vehicles to 36 days for the most recent 100,000-vehicle batch – a twentyfold improvement that reflects the compounding returns of the data-driven flywheel. By end-25, cumulative nominations reached 170, with over 680,000 vehicles equipped, providing an unparalleled real-world testing ground that no pure-play L4 player or smaller competitor can replicate.

Equally important is Momenta's open, chip-agnostic platform strategy. Unlike vertically-integrated rivals that lock customers into proprietary hardware ecosystems, Momenta positions itself as an independent "Tier 1.5" – providing algorithms and chip reference designs while remaining hardware-agnostic and compatible with multiple SoC platforms. Its software stack is qualified on four SoC platforms with 10 domain-controller partners, giving OEMs the flexibility to choose their preferred hardware while benefitting from Momenta's algorithmic excellence.

This openness has proven especially attractive to traditional global automakers who wish to retain their own brand identity and technical sovereignty without committing to the massive in-house R&D investment required for full-stack autonomous driving. The results speak for themselves: Momenta has captured 65% of China's third-party urban NOA supplier market by volume (Mar 25-Feb 26), ranking first among all independent intelligent driving solution providers globally.

WORK FORCE

Momenta's workforce is a strategic asset and, in our view, one of the clearest sources of its competitive advantage. At 31 Dec 25, the company employed 1,414 people, of whom 1,157 – 81.8% – were in R&D, the highest proportion among the independent providers we cover. This level of talent density means Momenta is not merely adding headcount; it is concentrating scarce autonomous driving, AI, embedded-systems and software-hardware integration expertise on the factors that separate winners from laggards in the sector: Faster algorithm iteration, lower-cost deployment and reliable commercialisation at scale.

That engineering depth is matched by a global delivery footprint. Momenta opened its first overseas office in Germany in 2020 to support its European OEM programmes, giving it local engineering and customer-support capability in one of the world's most demanding automotive markets. Its overseas presence has since broadened alongside its international customer base, which now includes 13 global groups. It shows that Momenta's workforce can win, retain and serve global OEMs – not just domestic customers – and can transfer its software stack across regions, platforms and regulatory regimes.

The combination of R&D intensity, cross-border execution and OEM-facing engineering depth is what allows Momenta to out-iterate competitors, co-design more tightly with hardware partners, and convert technical leadership into nominations and SOPs. In our view, this workforce profile is a key reason the company can sustain its lead over both independent ADAS providers and in-house OEM teams.

MAJOR SHAREHOLDERS

Momenta's shareholder structure combines founder-led strategic control with deep backing from global OEM customers – an alignment we view as a competitive advantage as well as a governance feature. The company operates under a weighted voting rights structure: Its 235,538,011 issued shares comprise 206,203,601 Class A shares carrying one vote each and 29,334,410 Class B shares carrying 10 votes each, giving 499,547,701 votes in total. Immediately after the global offering, the four founders held 34,966,618 shares, or 14.85% of the share capital, but commanded 59.85% of the voting rights, principally through their Class B holdings. This allows the founders to pursue long-duration R&D and commercialisation – essential in autonomous driving, where roadmaps span multiple vehicle generations – without being deflected by short-term market pressure.

The presence of two OEM customers as substantial shareholders is equally important commercially. GM holds 8.58% and Mercedes-Benz 6.13%, aligning two of the world's most demanding automakers with Momenta's success, encouraging deeper co-development, enhancing credibility with other global OEMs, and helping to convert technical leadership into nominations and SOPs. ZJSmart Holdings, ultimately controlled by an individual and not an OEM, holds 8.65%, adding non-OEM capital and a diversified shareholder base. In our view, this blend – founder control, strategic OEM ownership and independent capital – supports disciplined execution, strengthens customer alignment and helps Momenta scale its software-hardware flywheel and extend its lead over rivals.

Shareholding Structure

	Shareholding (shares)	Stake (%)	Voting Rights (%)
Mr Cao Xudong (through Bigsail Holdings)	16,896,621	7.17	33.82
Dr Xia Yan (through Green City)	4,458,830	1.89	8.93
Dr Sun Gang (through Vibrant Colour)	4,458,830	1.89	8.93
Ms Sun Huan (through Pine Sky)	3,520,129	1.49	7.05
Founders acting in concert	34,966,618	14.85	59.85
ZJSmart Holdings	20,374,980	8.65	4.08
General Motors Holdings	20,199,365	8.58	4.04
Mercedes-Benz AG	14,434,775	6.13	2.89

Source: UOB Kay Hian

MANAGEMENT

Momenta is founder-led, technically deep and, in our view, unusually well constructed for a company at this stage of commercialisation. The four co-founders have started to work together since 2016 and remain executive directors, which is rare in a sector where technical teams fragment quickly and where continuity of leadership is directly linked to the ability to sustain a multi-year R&D roadmap. They are also young – aged 37 to 40 – giving the company a long runway under the same leadership team.

The founders' roles map cleanly onto the business, with almost no overlap, which is a key reason Momenta has been able to move from research to mass production faster than peers:

- **Mr Cao Xudong (40), Chairperson and CEO,** founded the company in 2016. He holds a BEng in engineering mechanics and aerospace from Tsinghua University, was a researcher at Microsoft Research Asia from 2010 to 2015, and executive director of R&D at SenseTime from 2015 to 2016. He is responsible for overall management, organisational development and strategic project development – he contributed the “one flywheel, two legs” strategy that trains a single model architecture for both mass-production solutions and L4.
- **Dr Xia Yan (37), Senior Vice President, co-founder,** holds a BEng in automation from the University of Science and Technology of China and a PhD in control science and engineering. A former senior R&D scientist at SenseTime, he leads R&D for the overall solutions, including foundation models, algorithms, frameworks and infrastructure. This is the technical core of the franchise – the R6/R7 reinforcement learning and world model stack.
- **Dr Sun Gang (39), Senior Vice President, co-founder,** holds a BEng in software engineering from Nankai University and a PhD in computer science from the Institute of Software, Chinese Academy of Sciences, and was a visual computing researcher at SenseTime. He leads R&D and mass production – the function that converts algorithms into SOPs across 24 OEM customers and four SoC platforms. That Momenta was first in the world to mass-produce urban NOA and an end-to-end perception-and-planning model reflects this pairing of Xia's research prowess and Sun's production discipline.
- **Ms Sun Huan (38), Senior Vice President, co-founder,** holds a BA in journalism from Tsinghua University and an MSc in comparative media studies from MIT, and was previously a research associate at The ESO Fund and a product manager at Rokid Corporation. She leads sales, marketing, business development and overseas operations – the functions behind Momenta's 13 international OEM customers, its Germany office since 2020, and the Uber and Grab framework agreements.

The wider executive team adds capital-markets and financing capability to the technical core. Ms An Ren (34), Chief of Staff and executive director, joined in 2024 from Roland Berger, China Everbright and Terminus Technology, where she was board secretary and vice president; she is responsible for equity investment and financing and for strategic innovative business lines, including the L4 optionality.

The board embeds customer relations at the highest level. Mr Zhang Jianjun (53), non-executive director since 2025, has spent 27 years in the motor industry and is general manager of SAIC’s quality and technology management department. Mr Wang Glide Xiao (42), non-executive director since 2024, is vice president of corporate development and global M&A at General Motors (China) Investment. Mr Fabian Johannes (51), non-executive director since 2024, has been an executive manager at Mercedes-Benz Group since 2000 and is responsible for Mercedes-Benz’s operating system programmes. Three of the world’s largest automakers therefore sit around Momenta’s board table, which gives management early visibility into OEM platform roadmaps while giving those OEMs confidence that their programmes are being governed by people with direct exposure to the supplier.

In our view, this combination – founder control through the weighted voting rights structure; a founder group whose skills cover strategy, algorithms, production and sales; and a board anchored by strategic OEM shareholders – is a meaningful reason to believe Momenta can keep out-iterating both independent ADAS providers and in-house OEM teams. The main governance consideration is key-man risk, given the concentration of technical leadership in the founding team; we take comfort in the depth of the 1,157-strong R&D organisation beneath them, the low attrition implied by the founders' decade-long tenure, and the fact that the strategy is embedded in an automated data flywheel rather than in any single individual.

Key Management Profile

Name	Age	Title	Year of Joining the Company	Education and Professional Background	Responsibilities
Mr Cao Xudong	40	Chairperson, chief executive officer and executive director	2016 (founder)	BEng in engineering mechanics and aerospace, Tsinghua University. Researcher at Microsoft Research Asia from 2010-15 and executive director of research and development at SenseTime from 2015-16.	Overall management, organisational development and strategic project development.
Dr Xia Yan	37	Senior vice president and executive director	2016 (co-founder)	BEng in automation and PhD in control science and engineering, University of Science and Technology of China. Senior research and development scientist at SenseTime.	Research and development for the overall solutions, including fundamental models, algorithms, frameworks and infrastructure.
Dr Sun Gang	39	Senior vice president and executive director	2016 (co-founder)	BEng in software engineering, Nankai University, and PhD in computer science, Institute of Software, Chinese Academy of Sciences. Visual computing researcher at SenseTime.	Research and development, and mass production.
Ms Sun Huan	38	Senior vice president and executive director	2016 (co-founder)	BA in journalism, Tsinghua University, and MSc in comparative media studies, Massachusetts Institute of Technology. Research associate at The ESO Fund and product manager at Rokid Corporation.	Sales, marketing, business development and overseas operations.
Ms An Ren	34	Chief of staff and executive director	2024	BSc in economics and finance, Tsinghua University. Consultant at Roland Berger, senior investment associate at China Everbright, and board secretary and vice president at Terminus Technology.	Equity investment and financing, and strategic innovative business lines.
Mr Zhang Jianjun	53	Non-executive director	2025	BEng in mechanical design and manufacturing, Shanghai University. Twenty-seven years in the motor industry. General manager of the quality and technology management department of SAIC since 2024.	Professional opinion and judgement to the Board.
Mr Wang Glide Xiao Ou	42	Non-executive director	2024	BSc, Babson College, and MBA, Columbia Business School. Vice president of corporate development and global mergers and acquisitions at General Motors (China) Investment.	Professional opinion and judgement to the Board.
Mr Fabian Johannes Thomas	51	Non-executive director	2024	BEng in industrial engineering, Karlsruhe Institute of Technology. Executive manager at Mercedes-Benz Group since 2000, responsible for Mercedes-Benz's operating system programmes.	Professional opinion and judgement to the Board.

Source: UOB Kay Hian

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