

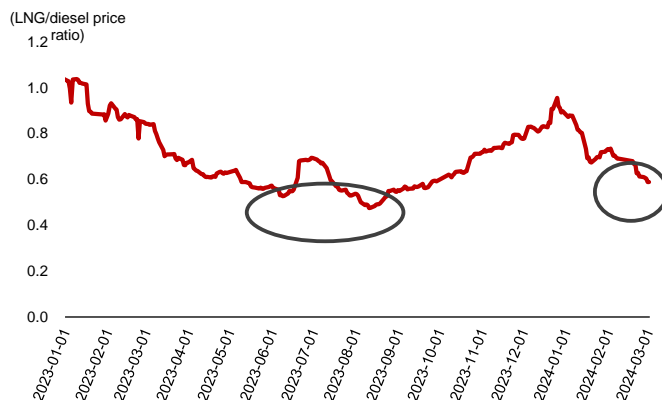
China Heavy-duty Truck

Expansion of gas/diesel price spread likely to boost natural gas HDT sales in the near term

LNG price in China has declined 35% YTD while diesel price has been largely unchanged. We calculate that the gas/diesel price ratio is currently at 0.59x, versus 0.9x in late Dec 2023. While gas HDTs accounted for only 7% of total HDTs sold in Jan 2024, we believe the current gas/diesel price gap should be large enough to trigger another round of natural gas HDT sales growth over the coming months. We expect the trend could be similar to that in Jul-Nov 2023 where gas HDTs accounted for 17-29% of total HDTs sold. For the sector as a whole, apart from gas HDT market share gains, we continue to see drivers coming from (1) potential policy support to speed up equipment replacement; and (2) resilient export demand. We continue to like **Weichai (2338 HK/000338 CH, BUY, sector top pick)** on market share gains driven by natural gas engines, and **Sinotruk (3808 HK, BUY)** on its export-driven growth potential.

- **Payback period for natural gas HDTs is ~2.5 years, one year shorter than that for diesel HDTs.** Our payback period analysis suggests that gas HDTs have increasingly become more attractive than diesel HDTs. We estimate that for truck buyers, based on the current price of LNG (~RMB4.2/kg) and diesel (~RMB7.1/litre), the annual net profit of RMB186k generated from a LNG truck is a lot higher than that from a diesel truck (RMB110k).
- **Decline in HDT sales volume in Feb largely due to the Lunar New Year.** According to preliminary data from Cvworl, China HDT sales volume (domestic sales + exports) dropped 25% YoY to ~58k units in Feb 2024. In 2M24, HDT sales volume grew ~23% YoY to 155k units. We maintain our HDT industry sales volume growth forecast of 17% for the full year, driven by replacement demand and resilient exports.

LNG/diesel price ratio in China



Source: Bloomberg, Wind, CMBIGM

**OUTPERFORM
(Maintain)**

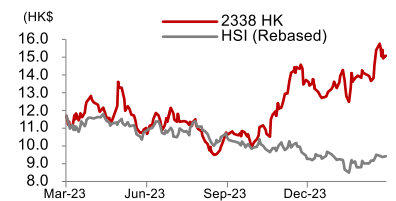
China Capital Goods Sector

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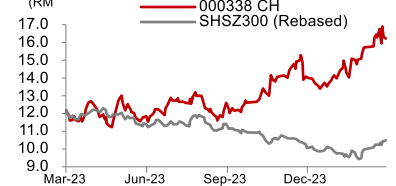
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Weichai-H 12-mth share price performance



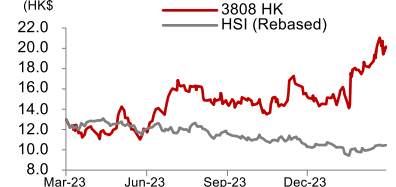
Source: Factset

Weichai-A 12-mth share price performance



Source: Factset

Sinotruk 12-mth share price performance



Source: Factset

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Figure 1: Comparison of investment return between diesel and LNG trucks

Diesel		LNG	
Operating assumptions			
Transport service income (RMB / tonne km)	0.27	Transport service income (RMB / tonne km)	0.27
Capacity (tonne)	30	Capacity (tonne)	30
Operating days / month	20	Operating days / month	20
Daily transportation distance (km)	500	Daily transportation distance (km)	500
Diesel consumption (litre / 100 km)	30	Gas consumption (kg / 100 km)	30
Diesel price (RMB /litre)	7.1	Gas price (RMB/kg)	4.2
Urea expense (RMB / 100 km)	11.25	Urea expense (RMB / 100 km)	0
Maintenance expense (RMB / 100 km)	60	Maintenance expense (RMB / 100 km)	60
Toll fee per vehicle (RMB/km)	2.2	Toll fee per vehicle (RMB/km)	2.2
Monthly wage of a driver (RMB)	9,000	Monthly wage of a driver (RMB)	9,000
Tax rate (%)	25%	Tax rate (%)	25%
Capex			
Truck purchase price (RMB)	320,000	Truck purchase price (RMB)	400,000
Years of depreciation	5	Years of depreciation	5
VAT rate	17%	VAT rate	17%
VAT (RMB)	54,400	VAT (RMB)	68,000
Total purchase price (RMB)	374,400	Total purchase price (RMB)	468,000
Profitability			
	(RMB)		(RMB)
Revenue (annual)	931,500	Revenue (annual)	931,500
Expense:		Expense:	
Diesel	-254,988	Natural gas	-150,300
Urea	-13,500	Urea	0
Depreciation	-64,000	Depreciation	-80,000
Maintenance	-72,000	Maintenance	-72,000
Toll fee	-253,000	Toll fee	-253,000
Driver wage	-108,000	Driver wage	-108,000
Insurance and others	-20,000	Insurance and others	-20,000
Pre-tax profit	146,012	Pre-tax profit	248,200
Tax	-36,503	Tax	-62,050
Net profit	109,509	Net profit	186,150
Payback period (year)	3.4		2.5

Source: CMBIGM estimates

Figure 2: Sensitivity of payback period to diesel price

	Transport service income (RMB / tonne km)					
	0.243	0.2565	0.27	0.2835	0.297	
Diesel price (RMB/litre)	5.7	4.8	3.3	2.5	2.0	1.7
	6.4	6.4	4.0	2.9	2.3	1.9
	7.1	9.4	5.0	3.4	2.6	2.1
	7.8	18.2	6.8	4.1	3.0	2.3
	8.5	267.8	10.3	5.3	3.5	2.7

Source: CMBIGM estimates

Note: For diesel truck

Figure 3: Sensitivity of payback period to LNG price

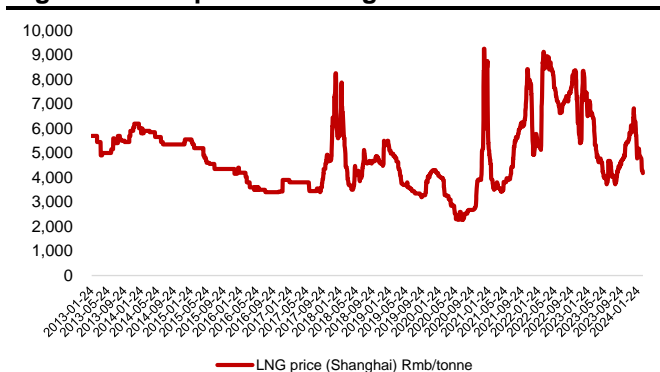
	Transport service income (RMB / tonne km)					
	0.243	0.2565	0.27	0.2835	0.297	
LNG price (RMB/kg)	3.3	3.4	2.7	2.2	1.9	1.7
	3.8	3.7	2.9	2.4	2.0	1.8
	4.2	4.0	3.1	2.5	2.1	1.8
	4.6	4.5	3.3	2.7	2.2	1.9
	5.0	5.0	3.6	2.9	2.4	2.0

Source: CMBIGM estimates

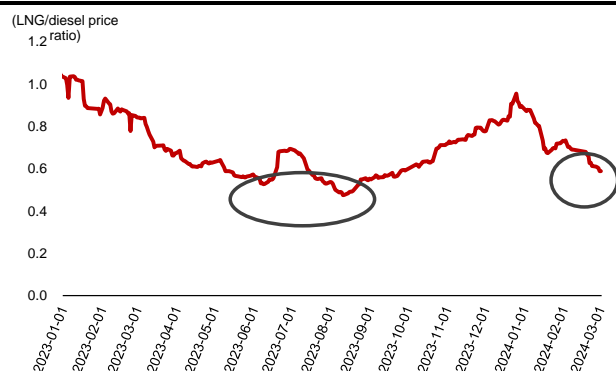
Note: For LNG truck

Figure 4: Diesel price in Shandong

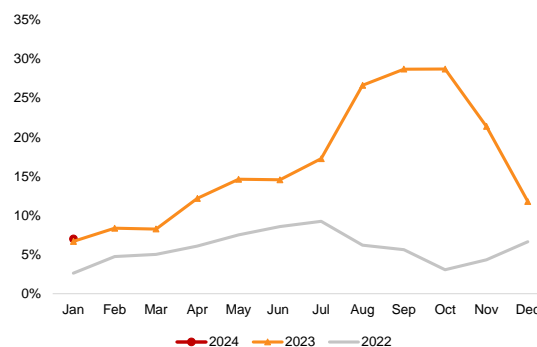
Source: Wind, CMBIGM

Figure 5: LNG price in Shanghai

Source: Wind, CMBIGM

Figure 6: LNG/diesel price ratio

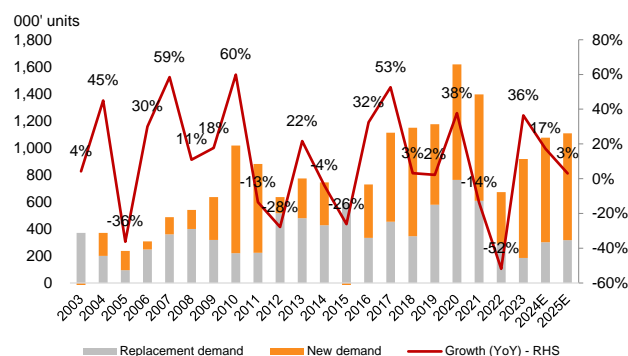
Source: Wind, Bloomberg, CMBIGM estimates

Figure 7: Natural gas HDTs as % of total HDTs sold

Source: Wind, Cvworl, CMBIGM

Figure 8: Domestic sales and exports of HDTs

Source: Wind, CMBIGM estimates

Figure 9: CMBIGM HDT sales projectionSource: Cvworl, Wind, CMBIGM estimates
Note: China's domestic sales + exports

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