New Energy Vehicle Company after Precipitous Drop in Share Price
——Margin and Future of Leapmotor

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Abstract:

Though 58.00% of Leapmotor's vehicle sales in 2022 come from the miniature car model T03, Leapmotor still plans to penetrate the mid-to-high-end, which is considered as a mean to improve its poor profitability. However, Many people think Leapmotor should focus on the mid-to-low market as it held the edge in the mid-to-low market compared to in the mid-to-high market. To explore the answer of this debate, we discuss the possible futures of Leapmotor from the following aspects.

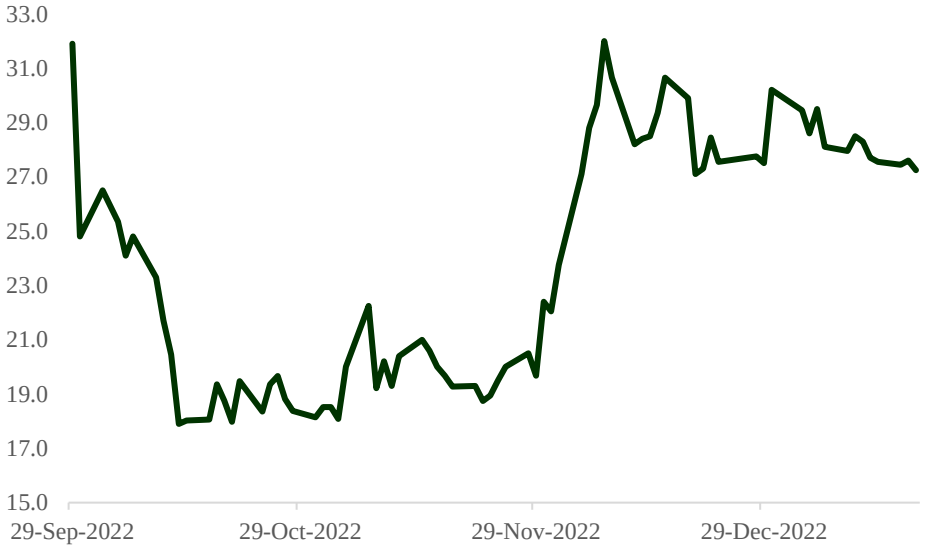
- Leapmotor's prospect for the future and the analysis of its current situation.
- The concern of profitability reflected in its P/S ratio.
- The valuation model based on different operating assumptions.

Content:

Introduction

At the end of the first trading day, the share price of Leapmotor had a precipitous drop to 31.90 HKD, which is 33.50% lower than its issue price of 48.00 HKD on 29 September 2022. The trend continued amid the complex Hong Kong market condition and reached a low point of 17.50 HKD in October. Its valuation recovered with better market conditions but was still around 27 HKD, which is more than 43.00% below the issue price.

Figure 1: Leapmotor Price History



Source: Refinitiv

The huge gap between the issue price and current price implies that there is a significant discrepancy in valuation logic between the market and the institutions and between past and present.

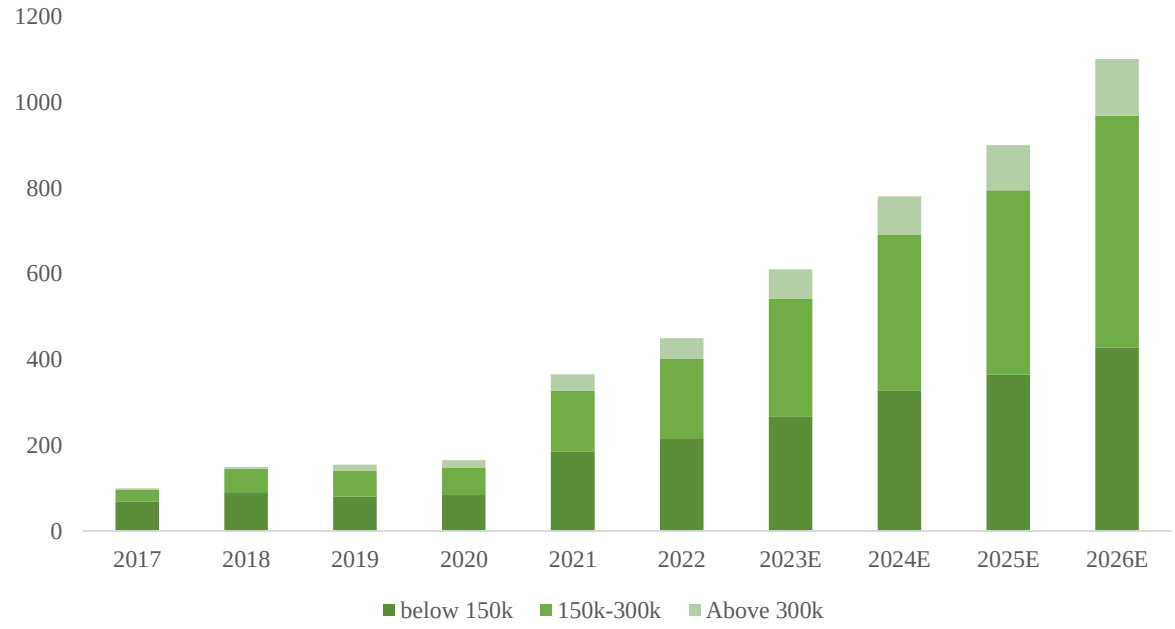
1. Overview

1.1 Background information of Leapmotor IPO and market competition

The sales of new energy vehicles in 2022 exceeded expectations at the beginning of the year, and it is expected that the sales of new energy vehicles will reach 9-9.5 million units in 2023. Among them, pure electric passenger car sales are expected to reach 5.95 million units, compared to 2022 pure electric car increased by 1 million units, of which the main increase will come from the high-end market of more than 150,000-300,000 yuan. Low-end pure electric vehicle market by the penetration rate, model supply, subsidies and other factors in 2023 growth space is limited. The market of 150-300,000 yuan will mainly benefit from the

new high-end pure electric vehicles launched by independent car companies and the sales growth of new car makers. It is expected that in 2026, new energy vehicles priced in the 150,000-300,000 yuan price range will account for 49.1% of China's total new energy vehicle sales, becoming the main driver of growth in China's new energy vehicle market. This is exactly the main positioning of Leapmotor, so the future development prospect is optimistic.

Figure 2：Sales share of new energy vehicles by price（in million）



Source：China Association of Automobile Manufacturers

1.2 Future Plans & Use of Funds Raised

In the future, Leapmotor plans to use about 40% of the IPO proceeds for R&D, about 25% for enhancing production capacity, about 25% for business expansion and brand awareness, and about 10% for working capital and general corporate purposes.

1.2.1 R&D level

The Company plans to produce one to three models per year and launch eight new models by the end of 2025. The first pure electric vehicle, C0, is built on the same platform as C11, with a streamlined design and an integrated battery pack and vehicle chassis, integrating the battery cells and packs into the body to improve battery space utilization, increase mileage and save battery packaging efficiency, while also improving body rigidity and better protecting the battery pack to enhance vehicle safety.

Leapmotor will develop more advanced Leapmotor Pilot, upgrade Leapmotor OS, and invest more in the development of next-generation vehicle electrification technology to provide a better smart mobility experience and improve the driving performance of smart electric vehicles. At the same time, they will further optimize the entire process from R&D, supply chain management to EV and component production, and strengthen vertical integration and operational efficiency.

1.2.2 Production capacity

They will continue to invest in advanced intelligent and automated production facilities to further strengthen the production capacity of electric vehicles and components.

1.2.3 Business expansion

They plan to launch in-vehicle services based on pay-per-use and subscription models to develop new revenue sources. Further enrich and optimize digital services and content related to life, work and entertainment to provide users with a rich and colorful travel life

1.2.4 Increase brand awareness

They will continue to enhance brand awareness through various online and offline marketing activities. They will also continue to increase the number of directly operated stores, channel partner stores and delivery and service centers to drive business growth.

1.3 Models

Leapmotor was incubated in Dahua Group, and after years of development, it has become a company with multiple models, positioned in the mid- to high-end market of 150,000-300,000 yuan, from low-end to high-end step by step. At present, the company has three models in mass production.

Pure electric coupe S01: delivery will start in July 2019, priced at 129,900-149,900 yuan, with ternary lithium battery and 451km NEDC range.

Micro EV T03: Delivered in May 2020, the vehicle is designed for the low-end market and priced at 689,000-84,900 yuan. It is equipped with AI voice assistant in a compact body and Leapmotor OS, the company's self-developed cockpit operating system, which provides navigation and in-car entertainment functions. The car is equipped with the Leapmotor Pilot 2.0 system, which provides a certain degree of driving assistance. The vehicle is also equipped with Heracles, a self-developed integrated electric drive system, which gives the vehicle a NEDC range of 403 kilometers, making it an excellent value for money.

Medium-sized intelligent electric SUV model C11: This product will be delivered in October 2021 as the main model of the company, with self-developed and self-produced battery, intelligent cockpit and self-driving system, and equipped with self-developed Leapmotor OS operating system and Leapmotor Pilot3.0 system.

1.4 Market Competitiveness Analysis

1.4.1 Competitive advantages in R&D

The company is committed to developing its own electrical and electronic architecture, smart cockpit, autonomous driving, electric drive, and battery system. The company will unify the underlying interfaces, algorithms and data communication protocols of automotive systems to realize cross-platform design and development of electrical and electronic architecture, vehicle architecture and core components of electric vehicles, as well as a high degree of reuse among different models to enable more convenient OTA upgrades and lower costs.

Intelligence drives the centralization and reusability of electrical and electronic architecture to improve efficiency and reduce costs. A centralized electrical and electronic architecture facilitates platform-based development and rapid delivery of the company's models. The company has adopted a centralized electrical and electronic architecture in the mass-produced C11 model, under which there are three systems: intelligent driving, intelligent cabin and vehicle control. At the same time, Leapmotor also unifies the interfaces, algorithms and data protocols among the systems in this electrical and electronic architecture, thus realizing a high degree of reuse of the platform among multiple models, significantly shortening the new vehicle development process and saving the vehicle's computing power to reduce hardware costs. In addition, the company is currently developing a next-generation centralized electrical and electronic architecture, which will further enhance integration, improve efficiency and reduce costs, and allow new models to have greater expandability.

1.4.2. Competitive advantages at the channel end

The company adopts the way of online APP order and offline experience store pickup and constructs the dual promotion mode of direct operation + channel partners.

In terms of customer operation, the Leapmotor APP developed by the company online can support order viewing, charging pile, vehicle remote control, community communication, online e-commerce and other functions, and currently has about 300,000 registered users.

Offline, the company has set up many delivery centers with simple and comfortable layout and regular customer activities to create a good service experience.

In terms of sales model, the company adopts the method of placing orders by APP, arranging production and delivering by offline channel partners to ensure that channel partners keep minimum inventory.

In terms of sales channel deployment, the company adopts both direct and franchised stores for promotion, and effectively manages both direct stores and partner stores through digital sales platform software. Through the cooperation with channel partners, the company has successfully expanded its sales network rapidly despite the relatively tight financial situation in the early stage. At present, 23 directly-managed stores and 268 channel partner stores have been formed, covering 101 cities in China, and the stores are mainly concentrated in first- and second-tier cities, which has enhanced a strong guarantee for the sales and promotion of the company's products.

2. Concerns about Profitability Influence the Valuation Multiples.

Investors are losing confidence in Leapmotor and other low-margin NEV companies, lowering the valuation.

NEV industry is now a red ocean. As time elapses, there is less room for the investor to imagine the things that a thriving demand will change. The profitability of NEV companies that cannot leverage the scale effect is doubtful. In the last few years, Leapmotor has paid efforts to lower the cost and improve the cost structure while it’s still far from profiting.

Figure 3: Profitability Metrics

	FY19	FY20	FY21	1Q22	2Q22
Gross Margin	-95.70%	-50.60%	-44.30%	-26.60%	-25.50%
Operating Margin	-624.90%	-137.70%	-91.60%	-53.80%	-46.00%
Net Margin	-770.40%	-174.30%	-90.90%	-52.30%	-45.40%

Source: Filings

Leapmotor is not the only company that suffers from the profitability challenge. Weltmeister Auto is another low-price NEV company that plans to list in the HKEX through a back-door listing. As the most comparable company to Leapmotor, Weltmeister has similar profitability.

Moreover, most of the other NEV companies targeting a different price range and client base have low gross margins and net losses.

Figure 4: Gross Margin of NEV Companies

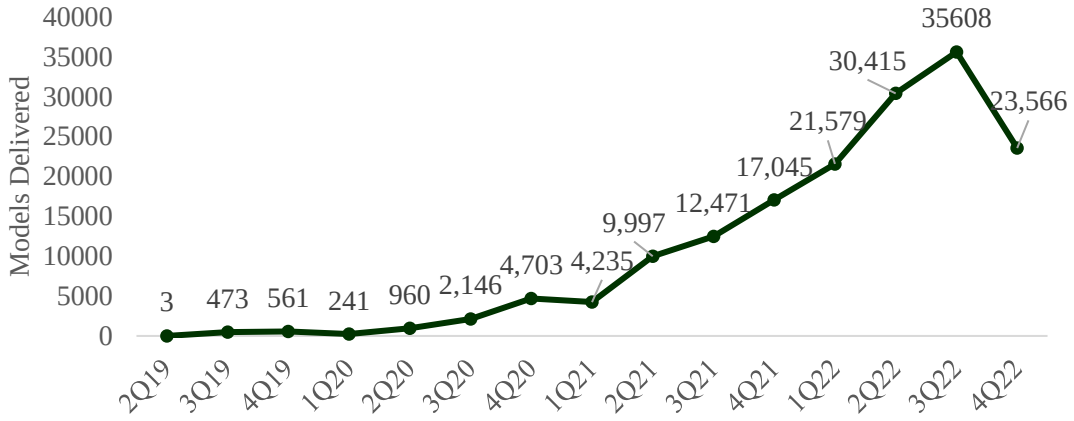
No.	Name	EV Revenue Share (2021)	Gross Margin for EV		
			2021	2020	2019
1	NIO	96.74%	20.56%	16.36%	0.50%
2	XPEV	95.49%	12.50%	3.54%	-
3	BYD	52.04%	17.39%	25.20%	21.88%
4	DongFeng	88.50%	3.60%	13.24%	13.20%
5	BAIC	57.31%	-32.73%	-55.64%	11.51%
6	Geely	99.60%	17.14%	-2.48%	3.52%
7	JAC	84.05%	6.46%	0.00%	0.00%
8	Chana	94.39%	15.45%	13.65%	12.39%
9	WM	90.65%	-41.10%	-43.50%	-58.30%
Average			2.14%	-3.29%	0.59%

Source: Filings

The key to improving the margin is to optimize the cost structure with scale effect as a company operating in a heavy asset industry. The per-car revenue side has little opportunity to increase as the market is competitive. The industry leader Tesla announced significant price cuts across its model lineup at the begging of 2023, with prices falling from 3,000 yuan (on the base-grade Model 3) to 13,000 yuan (for the base Model Y), which future exert pressure on the price of NEV. Increasing prices also disobey the philosophy of the common strategy of the NEV companies, which focuses on occupying more market share and lowering the cost on a larger scale.

The components of cars, i.e., batteries, also show no clue to lower their price given the strong demand. Leapmotor is hardly profitable after purchasing all the raw materials at such a price. It seems that the scale effect is the only saver.

Figure 5: Models Delivered in each Quarter

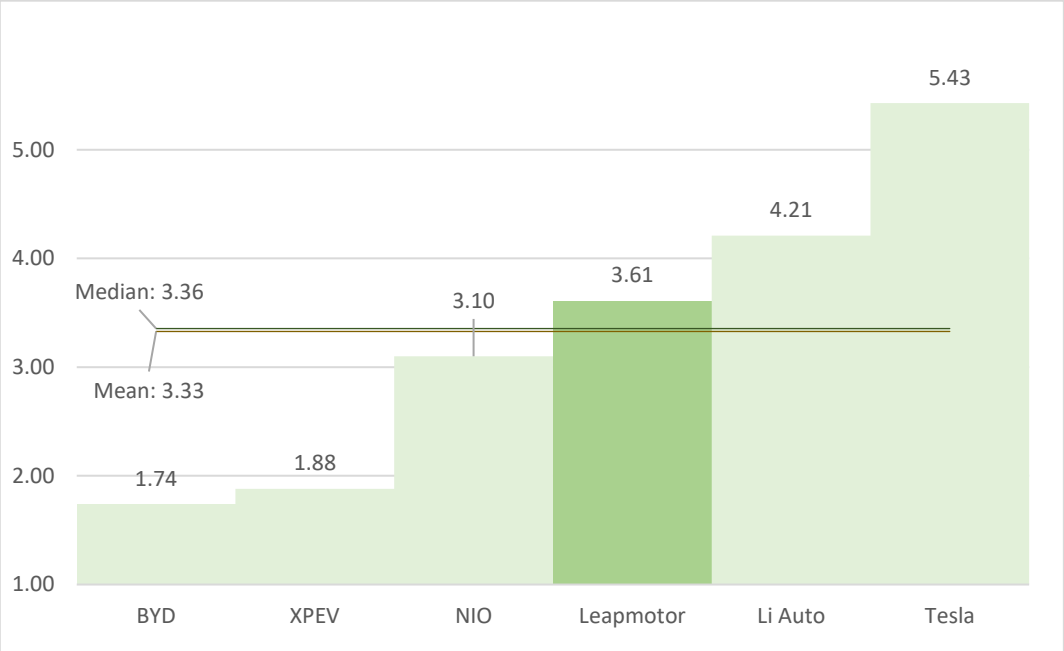


Source: Filings, Unofficial Announcement Made by Leapmotor

The performance in sales growth will be satisfying in 2022. The drop in models sold in the last quarter draws our attention. Even the cyclicality of the Auto industry shows that it is usual to reach the top in terms of sales in the third quarter, the sales in the last quarter still look not satisfying. It is a question of whether the improvement of gross margin in 1H21 is sustainable if the sales drop, especially in the more challenging market conditions in 2023.

The standard approach to value NEV companies is the P/S ratio. It measures both expected growth and projected profit structure. We should note that the current P/S balance of Leapmotor is above average among the comparable companies, implying a higher expected increase which should be released in the next several years.

Figure 6: P/S Ratios of Comparable Companies: Graph



Source: Refinitiv

3. Valuation

3.1 Operation analysis

Leapmotor currently has three main business categories, namely, car and parts sales, car regulatory credit sales and services, which account for 97.66%, 2.30% and 0.04% in 2021.

3.1.1 Revenue from sales of automobiles and parts

Revenue from sales of automobiles and parts is mainly from two models: micro electric car T03, medium-sized smart electric SUV model C11, the pure electric coupe S01 launched in 2019 has only 72 deliveries in the first three quarters of 2022, and Leapmotor is expected to abandon the S01 model in the future, while the smart pure electric large vehicle C01 only started on September 28, 2022 deliveries, still waiting for sales to creep up. From the current product array of Leapmotor, the product array is relatively complete, and both mid- and high-end models and low-end models have strong competitiveness. Among the mid-range and high-end models, there are SUV model C11 with a mature reputation and is still on the rise, as well as the promising vehicle product C01. Among the mid-range and low-end models, there is the T03 model with strong market competitiveness and growing market share.

3.1.2 Revenue from auto regulatory points sales

The revenue of auto regulatory points sales is mainly from the trade of positive points balance of auto production. The positive points production is related to both auto sales and the actual value of average fuel consumption, and the climb of Leapmotor's future sales will pull Leapmotor's positive points. Although the average unit price of double points has continued to rise since 2018, reaching 2,500-3,000 yuan per point in 2021, with the super-speed development of new energy vehicles, the situation that the supply of positive points exceeds the demand will soon pass, and the price of positive points will keep decreasing. According to the comments of the Ministry of Industry and Information Technology in the Decision on Revising the Parallel Management Measures of Average Fuel Consumption of Passenger Vehicle Enterprises and New Energy Vehicle Points (Draft for Comments) (hereinafter referred to as "Draft for Comments"), which mentions the new points trading adjustment mechanism, the points price should remain stable after hitting the bottom.

3.1.3 Revenue from Service revenue

Service revenue mainly comes from value-added services for mid-to-high-end models, warranties, car networking, roadside assistance, etc. With the launch of the C11, value-added service revenue is only beginning to form a significant part of earnings. If Leapmotor focuses on transitioning to the mid-to-high end in the future, service revenue will continue to make up a higher percentage of Leapmotor's revenue.

3.2 Key assumptions

3.2.1 Sales Growth of new energy vehicle in China

In 2021 and 2022, China's new energy vehicle market spurts forward with growth rates of 159.7% and 83%, respectively. However, with the withdrawal of new energy vehicle subsidies and the increased coverage of the main audience for new energy vehicles, it is expected that the growth rate of new energy vehicle sales in the next few years will be difficult to maintain at the current high level. According to IDC's latest report, "2022-2026 China New Energy Vehicle Market Trends Forecast", the growth rate of new energy vehicles is forecasted to be 22.9% and 20.9% in 2023 and 2024, respectively.

3.2.2 Vehicle and parts sales revenue

For a more accurate forecast, we have divided Leapmotor's new energy vehicles into two categories, A-type vehicles (80,000-150,000 yuan, representing model T03) and B-type vehicles (150,000-300,000 yuan, representing model C11). According to the Leapmotor car

prospectus, the China New Energy Vehicle Industry Association and the China Passenger Vehicle Market Information Joint Committee have made a forecast of China's new energy vehicle sales by price range and its corresponding share. By looking at the overall sales volume of new energy vehicles in China and the share of different price ranges, we can get the forecast of new energy vehicle sales in different price ranges in the coming years.

In order to obtain the sales volume of different classes of Leapmotor vehicles, we have made separate assumptions for the market share of Leapmotor's A-class and B-class vehicles, which is necessary considering the technical requirements and audiences of different classes of vehicles.

After getting the sales volume of different classes of Leapmotor vehicles, multiplying the sales price of the corresponding class of vehicles, we can get the sales revenue of Leapmotor vehicles and parts.

Figure 7: The calculation of Leapmotor vehicle and parts sales revenue

Leapmotor vehicle and parts sales revenue
= China's new energy vehicle sales
×The proportion of vehicle sales in different price ranges
×The market share of Leapmotor vehicles in the corresponding range
×The selling price of Leapmotor vehicles in the corresponding range

Source: Filings

3.2.3 Market share of Leapmotor vehicles at different price points

To obtain the sales volume of different classes of Leapmotor vehicles, we have made separate assumptions for the market share of Leapmotor's A-class and B-class vehicles, which is necessary considering the technical requirements and audiences of different classes of vehicles.

(1) Under normal operating assumptions

According to the disclosure in the prospectus, Leapmotor plans to focus on the mid-to-high-end market in the future, so the market share in the 80,000-150,000 yuan range will gradually decrease with the introduction of no new models and will be 4.4%/4.2%/4.0% in 2022/2023/2024, respectively. The market share of the mid-to high-end models in the 150,000-300,000 yuan range is expected to maintain a small and stable growth, at 1.7%/2.4%/3.0% in 2022/2023/2024, respectively, because of the fierce competition in the main battlefield of NXL (short for Nio, XPeng and Li), and Leapmotor's lack of experience in mid- to high-end models.

(2) Under the assumption of transition to mid-to-low-end

Although Leapmotor's vehicle sales in 2022 are promising, 58% of them will come from the T03, a miniature electric car launched in 2020, which is not in line with Leapmotor's vision to focus on the mid-range and high-end. Under this assumption, due to the lack of competitiveness caused by low R&D investment Leapmotor abandons the mid-to-high-end market and focuses on the A-segment cars in the 80,000-150,000 yuan range.

The market share in the 150,000-300,000 yuan range decreases due to attention shift and is 1.7%/1.2%/0.8% in 2022/2023/2024, respectively. As for the 80,000-150,000 yuan range, which is the main launching point, Leapmotor has significant technical advantages and faster market share growth, 4.4%/10%/15% in 2022/2023/2024, respectively.

3.2.4 Cost of Equity (βcoefficient)

To get the WACC of Leapmotor, the Hong Kong-listed new energy vehicle companies Li, NIO and XPeng, which are similar to Leapmotor, are selected, and the unleveraged beta coefficient of Leapmotor is obtained as 1.38.

Figure 9: The calculation of Leapmotor β coefficient

Company name	βL	Tax rate	Price	Shares	Market Cap	Debt	D/E	βU
NIO	1.85	0.00%	91.95	1.692B	155.6B	44.8B	0.2880	1.4362
XPeng	2.85	0.00%	39	1.725B	67.3B	23.5B	0.3493	2.1122
Li	0.63	0.00%	87.5	2.085B	182.4B	12.1B	0.0664	0.5908
Target	1.6118	0.00%	27.55	1.143B	31.5B	5.3B	0.1682	1.3798

Source: Refinitiv

3.2.5 Cost of Debt

Since Leapmotor does not have a history of issuing debt, the unique nature of the bonds issued by comparable companies and the fact that there is no previous credit rating for Leapmotor prevent us from directly assessing Leapmotor's credit spread. The credit spread in this valuation model is based on the bond ratings measured on the Refinitiv website. The credit spread in this valuation model is based on the bond ratings measured on the Refinitiv website and is 5.30%.

3.3 Valuation Interpretation

Under the assumption of normal operation, the DCF model valuation analysis, we finally came up with a target price of 28.73 HKD for Leapmotor, and under the assumption of transitioning to the mid-to-low end, the target price of Leapmotor is 23.02 HKD.

Though we assume that Leapmotor will have much larger competitive power and market shares in the mid-to-low market, the expected price for transitioning is still significantly lower than the expected price for normal operation. Considering it is doubtful that whether Leapmotor can reach the same status as Wuling MiniEV, keeping on mid-to-high-end market looks like a good choice.

Conclusion

Leapmotor keeps promoting its technological superiority through full-domain self-development and aims to focus on the mid-to-high-end market in the following years. Though the current best-selling model for Leapmotor is still a mid-to-low-end car T03, its poor margin rate and the high fierce competitiveness in mid-to-low market both imply that Leapmotor needs to stick to the high-end line. The situation will be improved as the scale effect brought by sales growth decrease Leapmotor’s cost and increases its margin rate.